

Time to ROAM: Segmenting Markets by Lead-time to Support Mass Customization¹

Teaching Note

Synopsis

This case highlights the capacity dilemma facing any mass-customization manufacturer: How can it offer rapid fulfillment on made-to-order products at a competitive cost? Situated at the intersection of operations and marketing, the case describes ROAM, a startup luggage company that offers customized suitcases delivered within a few days. To manage costs, ROAM must utilize factory time and human resources efficiently. However, demand is unpredictable. On the factory floor, employees often either scramble to process a backlog or sit idle waiting for orders.

To smooth production and increase efficiency, ROAM CEO Larry Lein wants to supplement the current base of time-sensitive customers with a new market segment: time-insensitive customers. These new customers would get a discount for waiting longer to receive their custom suitcases. In this scenario, the factory manager could prioritize time-sensitive orders first and fill in the production schedule with the discounted time-insensitive orders.

In the case, Larry Lein asks his director of marketing to increase orders by identifying time-insensitive customers from an entirely new market segment.

Learning Objectives

After completing this case, students will be able to:

- Articulate the opportunities and challenges of Mass Customization
 - Asses key operational/manufacturing tradeoffs
- Understand issues arising under ROAM's projected factory utilization
- Identify and evaluate potential market segments, marketing strategies, and appropriate channels
- Generate a defensible marketing plan for time-insensitive products

¹ This note is designed as the basis for class discussion rather than illustrate either effective or ineffective handling of a business situation. The case is not intended to serve as an endorsement or a source of primary data. The authors gratefully acknowledge the assistance of Charlie Clifford and Larry Lein of ROAM.

Position in Course

The authors designed the case for use in a low-stakes competition during orientation for the full-time MBA program. Faculty/program administrators had assigned these new students to semester teams of 4-5 people, and the case functioned, in part, as an early stress test to help the fledgling groups develop healthy dynamics and norms.

Students were able to access the case document at 3 p.m. on a Monday, attended a kick-off event that evening at 6 p.m., and then presented their recommendations on Wednesday morning. This tight timeline created an intense but brief first case experience. To minimize undue stress, the case was not graded. Rather, the new students presented their ideas to a panel of second-year MBA students who provided feedback only. With a graded case competition on the schedule for the end of the first semester, the new students were motivated to learn both the case content and process.

Since the case occurred before subject-matter instruction began, the authors designed it to be accessible to students from any background. So, although this case includes some process analysis and other operational details, it requires less operations or marketing expertise than innate curiosity and imagination.

This case could be used with undergraduate, graduate, and executive-level students. It could be used as an introductory activity (as the authors did) or as a springboard to discuss operations and/or marketing issues related to Mass Customization.

Potential Assignment Questions

1. What is Mass Customization? How does it differ from Mass Production? From a Job Shop?
2. What are the inherent tradeoffs in Mass Customization?
 - a. ROAM currently offers the customer four different suitcase sizes as well as a choice of colors for the two sides (shells), zipper, zipper pull, binding, stitching, handle, and the wheel hubcaps. Which of these choices are easiest to provide?
 - b. Are there other options (choices) that could (easily) be added?
3. What are the key operational tradeoffs at ROAM that arise with Mass Customization? How would the addition of time-insensitive orders help ROAM improve factory utilization? What new challenges would it introduce?
4. What are the marketing issues with Larry's request for 200 units of time-insensitive orders each month?

5. Recommend three possible new markets and corresponding strategies to generate time-insensitive orders. Then choose the strongest option. Include
- target markets,
 - strategies, and
 - channels.

Prepare to explain and defend your

- recommendation, and
- process for ensuring engagement and buy-in from all team members.

Teaching Plan

This case is suitable for a 75- or 90-minute class discussion with the following time breakdown (illustrated for a 90-minute class):

Discussion Topics and/or Activities	Time (Minutes)
Background on Mass Customization with examples and issues	10
Mass Customization at ROAM. Which options are easiest to provide? What other options might be attractive to offer?	10
What are the operational issues at ROAM that arise with Mass Customization?	10
Larry's request creates new marketing issues. What are some of them?	10
How do Operations and Marketing (or other functional areas) support each other? Compete with each other for resources, etc.?	10
Student recommendations	30
Wrap up/Closure	10

Discussion

What is Mass Customization? How does it differ from Mass Production? From a Job Shop? What are the inherent tradeoffs in quick customization?

Mass Customization can be defined as tailoring a product or process to each customer's wishes but delivering and administering as though it were a standardized offering. Mass Customization strives to provide the flexibility of a job shop but with the efficiency of an assembly line (i.e., Mass Production). In reality, there are trade-offs that limit the ability to fully achieve these objectives. Given a careful selection of production-friendly options, customers can extensively personalize their order and the factory can efficiently manufacture. Mass customization is supported by "lean manufacturing" ideals that emphasize the elimination of waste and the improvement of quality. Mass Customization requires streamlined product and information flows (to ensure quick delivery) and small changeovers (to facilitate a batch size of one).

ROAM currently offers the choice of four different suitcase sizes, and choices of colors for the two sides (shells), zipper, zipper pull, binding, stitching, carry handle, and the wheel hubcaps. Which of these choices are easiest to provide?

Difficult: The different suitcase sizes and shells are the most challenging due to the physical size of the inventory and their relatively high cost.

Moderately Challenging: Given an assemble-to-order process and very small set-up times, the zipper, pull, binding, and stitching are only moderately challenging. Although they are inexpensive, they are integrated into the product. For example, it would be nearly impossible to disassemble the suitcase after the zipper has been sewn into place.

Easy: The carry handle and the hubcaps are inexpensive and can be added (or removed) easily at any time in the process.

Are there other options that could (easily) be added?

A number of other integrated options could be added, and they would vary in complexity. For example, integrated items (such as more pockets) that required additional sewing, gluing, or clips could be complicated and costly. An additional handle on the side would be integral--the shell would need to be redesigned—but not overly expensive. In contrast, non-integrated options such as a suit bag could be quite easy to add.

What are the key operational issues at ROAM that arise with Mass Customization? How would the addition of time-insensitive orders help ROAM improve factory utilization?

A customer who purchases a traditional generic suitcase can take it home from a store right away or receive near-immediate delivery from an on-line retailer. The manufacturer has produced generic units in advance and can efficiently build up finished goods inventory (FGI). An efficient factory schedule can be planned and implemented well in advance.

Custom suitcases cannot be pre-made. With millions of color and size options, no amount of forecasting could anticipate specific demand. Online orders trigger production—and the clock. Customers expect quick product delivery. As a result, firms like ROAM face two competing mandates: customization and speed. Some inefficiency is inevitable in mass customization with its build-to-order production. High-demand periods delay shipping—which disappoints customers—while low-demand periods leave the factory idle—which drives up costs.

Compared to overseas producers of mass-customized goods, ROAM currently holds a competitive advantage of manufacturing and shipping within the U.S. Quick customization requires relative proximity to customers and an efficient manufacturing process. However, the cost of unused manufacturing capacity is more expensive in the U.S. and poses a threat to ROAM's future success and growth. So ROAM has the proximity but not the efficient manufacturing—yet.

If ROAM were to supplement typical short-lead time mass-customized orders with time-insensitive orders that could be manufactured during days/hours of light demand, the factory utilization could be greatly increased.

What are the marketing issues with Larry Lein's request for 200 units of time-insensitive orders each month?

When earlier delivery is an option, customers choose it—unless there is an incentive to wait. There may be some time-insensitive customers who would be interested in ROAM's products, but only at a lower price. If they were willing to wait for delivery, ROAM could offer them a discount, increasing both overall sales and factory efficiency. So far, so good.

In general, time-insensitive customers are likely also to be cost sensitive. But what if some time-sensitive existing customers (who are willing to buy at the higher price) can also be cost sensitive? Given the option, they might choose slower delivery, too. This scenario puts ROAM's full-priced suitcases in competition with its own discounted suitcases.

As Larry mentioned more than once, he was unwilling to cannibalize existing demand from any customers who were willing to pay a premium.

Another issue for ROAM is finding and marketing to this new segment. A single website cannot serve different markets without inviting cannibalization and confusion.

Sample Student Work

Below are slide decks from three student teams. Note that many of the recommendations are for business-to-business customers (B2B) rather than business-to-consumer customers (B2C). While many of these proposals might be for customer orders in batches greater than one (unlike ROAM's current segment of individual customers ordering single cases), they continue to tap into ROAM's ability to configure the cases to exact specifications.

Example 1

Finding new ROAMers

Green Nine, LLC

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Agenda

- Background
- Three Ideas
- Recommendation
- Risk Analysis
- Exit Strategy
- Timeline/What's next?
- Conclusion

2

What is the business problem we're trying to solve?

Feb 2019
Kelley SCA recommends that ROAM factory layout run 1,200 units/mo.

How do we reach our goal?

July 2019
ROAM announces need to generate 200 time insensitive orders to close capacity gap

Aug 2020
Achieve 1,200 units/mo

3

Project considerations

- Identify three possible new markets and corresponding strategies to generate time-insensitive orders
- Bring forward 1 recommendation
- Additional demand must come from customers who would not otherwise have purchased full-priced luggage

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Idea #1: Sluggers representing the ROAM brand!

Consumer Target → MLB players and employees

Channel → MLB franchises

Strategy → Pursue contracts with 10 teams annually for long-term, personalized luggage for teams at 10% discount

Value Proposition → Premiums highly customizable, convenient, travel together as one unit in style

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Idea #2: Putting ROAM on shelves

Consumer Target → Up and Corner (office storage)

Channel → Brick & mortar specialty luggage retailer in affluent areas

Strategy → Pursue contract with 1 SLR for long-term, top-selling luggage models at 22% discount

Value Proposition → Premiums better price point vs. competition

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Idea #3: Pack for your wedding with ROAM

Consumer Target → Luxury wedding parties: \$M income \$100K+

Channel → Wedding planners

Strategy → Pursue contracts with 10 wedding planners monthly for long-term, personalized luggage for destination weddings at a 15% discount

Value Proposition → Premiums highly customizable, convenient, travel together as a group in style

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We recommend targeting the wedding industry

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What do you see?

- Co-ordinated Individuals
- Looking for a memorable experience to last a lifetime
- Want a highly customized experience

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Capturing the wedding industry provides unrealized benefits

Wedding Industry Breakdown

87% in industry

4-yr deposit and rehearsal rooms = \$ 1.5Bk, 100% in

Destination Weddings (20% of)

Accessible by \$15 to \$100 wedding planners and destination wedding

If Successful → Will Create Micro-Influencers → Enter Luxury Travel Industry

(1) Wedding Services in Demand (2) Wedding Services and Consumer Packs & Cases (3) Wedding Services Health, Spa, Wellness, and Beauty (4) Wedding Services, Travel & Lodging

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Interesting facts about the wedding industry

Stable Demand
Weddings occur year around (average 44,000 per weekend) (1)

High Scope for Growth
23 Million bridesmaids and groomsmen each year (2)

Time-insensitive Orders
Tuxedos and wedding dress purchases typically ~6 months in advance (3)

(1) Wedding Services in Demand (2) Wedding Services and Consumer Packs & Cases (3) Wedding Services Health, Spa, Wellness, and Beauty

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The Best Wedding Planners are Located in major cities

New York: 21
Los Angeles: 12
San Francisco: 5

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Risk analysis

Problem	Problem	Problem
Unable to accommodate last minute changes due to capacity limitations	Client decides to return full order to ROAM	Monthly demand exceeds 200 time-insensitive orders
Solution: Make 1 piece of luggage as a 'test', get client approval before fulfilling order	Solution: Be clear with client upfront that orders are non-refundable, fair trade-off for discount	Solution: Temporarily add additional shifts/overtime on the production line as available

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What if the wedding planners don't bite?

STEP 1: If sales don't materialize in six months, move to brick and mortar specialty luggage retailers

STEP 2: Sell via brick and mortar specialty luggage retailers

STEP 3: If brick and mortar retailers do not generate sufficient demand, liquidate excess inventory

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Roadmap to victory

Feb 2019
Kelley SCA recommends that ROAM factory layout run 1,200 units/mo.

Aug 2019
Begin pursuing partnerships with wedding planners for Aug 2020 activation

July 2019
ROAM announces need to generate 200 time insensitive orders to close capacity gap

Aug 2020
Achieve 1,200 pcs/m to support mass customization

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Example 2

Time to ROAM: A Time-Insensitive Way To Win

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Agenda

- Case Overview
- Strategy #1 - Charity
- Strategy #2 - Businesses and Employees
- Strategy #3 - Sororities
- Final Recommendation

2

The Challenge: Maximize Production Capacity

- 85% Utilization Now
- Time sensitive custom orders
- Remaining 9%
- Time insensitive new market
- 100 Additional Suitscases

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Charities

Consumers for a Cause

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Charity Target Market

- Baby Boomers
 - 23.6% of the US population
 - 75% give to charity
 - Donate annual average of \$1,212 across 4-5 organizations
- Passionate Consumers
 - 87% of consumers said they would switch from one brand to another if it were associated with a good cause

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Americans' Propensity to Donate to Charities

Charity	Propensity to Donate
American Red Cross	92%
Feeding America	88%
Breast Cancer Research Foundation	85%
St. Jude Children's Hospital	82%
United Way	78%
Salvation Army	75%
Red Cross	72%
World Wildlife Fund	68%
Greenpeace	65%
Humane Society	62%
Animal Welfare League	58%
World Council of Churches	55%

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Strategies and Channels

- Partner with Breast Cancer Research Foundation
 - Add ROAM bags in their travel portfolio
 - Donate 50% of profits to Breast Cancer Research Foundation
 - Move to support causes such as AIDS, LGBTQ+, and more
 - Additional tax benefits
 - Enhanced brand image

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Businesses & Employees

A Morale Boost

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Corporate Gifts

- \$295 Billion Market
- > Alabama's GDP
- Corporate Morale
 - 86% believe gift = employee value
 - 90% executives believe gifts generate Positive ROI
 - Intangible Benefits

"Gifts humanize business," said a survey respondent. "It pays for itself two-fold," said another. (FORBES, 2018)

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Companies and Employee Recognition

- Target market - Employee incentive programs
 - Work anniversaries, holidays, collaborating, and general recognition
 - Corporate travelers
 - ROAM custom corporate options
 - Basic bag, company custom bag, or fully personalized
 - Sell to HR platforms

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Strategies and Channels

- Workhuman (GlobeForce)
 - Established network
 - Start small, then scale
 - 25% CAGR since 2013
 - 4 million employees across 230 companies
 - Diverse exposure, recognition, no brand compromise

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Sororities

An untapped market

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26 Unique National Sororities

655 Campuses

Across the US and Canada

4,000,000 Members

In Sororities

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Sorority Member Market

- Large member base
- Affluent
- Educated
- Fashion-forward
- Personalization and sorority life
- Like to travel
- Ages 18 - 22

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Kappa Alpha Theta

- Second largest sorority in US
- 250,000 members
- 147 college chapters
- 200 alumnae chapters and groups
- Founded in Indiana

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Strategies and Channels

- National chapters - start with one and expand
 - National email lists
 - Support their charities (CASA) - % of profits
- National Panhellenic conference
- Travel times: studying abroad, spring break, winter break, summer break

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Our Primary Recommendation: Sororities

- Scalability
- Market Turnover
- Targetability
- First-Mover
- Cost of Entry
- Brand Loyalty

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Example 3

ROAM Luggage

Agenda

- The Luggage Market
- The ROAM Problem
- Strategy 1: Corporate Partnerships
- Strategy 2: Sports Teams
- Strategy 3: Graduate Programs
- Recommendation: Decision & Execution
- Questions & Answers

The Luggage Market

AWAY	ROAM	TUMI
Lower Price Lower Quality Direct-to-Consumer	High Price, Higher Quality Direct-to-Consumer	High Price Higher Quality Brick-and-Mortar
Same materials as other top-quality luggage brands but with lower overhead. Designed to fit everything you need while you're away.	Quality, lightweight materials. Various color options to fully customize unique to your personality. Free delivery in 1-10 days.	High-quality, functional, back-ordered travel bags for frequent travelers. Global presence - Americas, Asia, Europe

The ROAM Problem

Daily Production (with Constrained Capacity)

Issues

- Production utilization not fully optimized
- Find time insensitive orders to keep factory busy

Action

- Develop strategy to sell 200 time insensitive units per month

Goal

- Increase production from 1,000 to 1,200 a month by August 2020

Potential Recommendations

- Tight Affinity
 - Young Professionals
 - Strong Market
 - Frequent Travel

Corporate Partnerships | Sports Teams | Graduate Programs

Strategy 1: Corporate Partnerships

WHO

- Accounting, Consulting, Law Firms
- Firms hiring new graduates every year
- Young professionals

WHY

- Close to target market
- Frequent travelers
- High turnover
- Free advertising
- Corporate budgets

HOW

- Corporate stores and events (Offline)
- Recruiting / signing conventions (Offline)
- Discounted rates (Digital & Offline)
- Sales lead (Offline)

Strategy 2: Sports Teams

WHO

- Amateur sports
- Country club leagues
- National teams, under 18
- Individual Championships

WHY

- Quantity-driven market
- Stable market as depending mostly on sponsorship

HOW

- Partnership with Eastbay (E-Commerce)
- Networking with Sports administrators (Offline)
- Promotions through Social Media (Digital)
- Sponsorship on sports events (Offline)

Strategy 3: Graduate Programs

WHO

- Business, Law, Medical Schools
- New class of 100-400 students every year

WHY

- Fit company brand, social standing
- Potential future buyers
- Recruitment budgets
- 10,000 IU graduate students alone

HOW

- Filler by endowment and class size (Offline)
- Utilize existing relationships (Offline)
- Sales lead (Offline)

Decision Making

	Corporate Partnerships	Sports Teams	Graduate Programs
Barrier to Entry	High	Very High	Medium
Time to Develop Channel	Up to 10 months	Up to 6 Months	Up to 3 Months
Target Market Affinity	Good	Very Good	Very Good
Size of Market	\$251M	\$245M	\$200M

Decision Making: Value Analysis

	Corporate Partnerships	Sports Teams	Graduate Programs
Barrier to Entry	6	3	9
Time to Develop Channel	3	6	9
Target Market Affinity	6	9	9
Size of Market	9	9	6
Total	5.55	5.85	8.7

Executing Graduate Program Strategy

Recommendation: Hire a B2B Business Development Lead within three months.

Primary Role Responsibilities:

- Identify target schools and graduate programs
- Develop relationships with programs
- Communicate ROAM value proposition

Incentive Structures:

- Base Salary: \$35,000
- \$20/unit commission structure on up to 2400 units
- Opportunity to earn \$88,000 annually

Pros:

- Dedicated Resource
- Commission driven growth structure

Cons:

- Recruitment process
- Additional overhead

Graduate Program: Execution Strategy

Recommendation: Create B2B Business Development Lead

Execution Framework

1-3 Months	3-9 Months	9-12 Months
Local Leads Search Team to Find Business Development Lead	Key Account Sales Lead is On-Boarded and begins pursuing account leads at target schools.	Graduate Program Accounts are identified, pursued and orders are placed.

Executing Graduate Program Strategy

Bringing it back home...

Task 1: Utilize full operational capacity of ROAM facility

Task 2: Create Time Insensitive Demand that will not cannibalize existing B2C sales

Solution: Hire B2B Business Development Manager to pursue graduate programs and create incremental time insensitive demand

Contingency Plan: Pursue Target Markets with available resources