



Council of Supply Chain
Management Professionals

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Case studies can supplement a course and be used to teach application of supply chain management concepts to real-world situations. Others can use the case studies to learn about supply chain challenges and to analyze the situation to develop solutions.

The Forecasting Challenge for EC-Creamery

An Academic Learning Case Study written for the
Council of Supply Chain Management Professionals

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CSCMP

The Forecasting Challenge for EC-Creamery

SUMMARY

EC-Creamery is an Eau Claire, WI based dairy processor selling yogurt products throughout the Midwest region of the U.S. Inaccurate forecasts have wreaked havoc in the company, leading to frequent stockouts and creating operational challenges. Your task is to draw on the information you obtain from your colleagues to develop sales forecasts, document your choices and procedures and share your thoughts and insights on issues related to forecasting and sales & operations planning.

LEARNING OBJECTIVES

Upon completion of this case analysis, students will be in a position to

- appreciate the challenges of forecasting and demand planning/management in an organizational context and how they can be addressed via sales & operations planning;
- deal with inaccurate or incomplete data to develop forecasts;
- select and implement appropriate forecasting techniques;
- explain and defend their choices in a coherent and compelling manner; and
- make relevant recommendations to senior management based on their findings.

Disclaimer:

This case is written solely for educational purposes. All names and numbers provided in this case are fictional. Any similarities to actual persons, products or companies are purely coincidental. Statements made in this case study are not intended to represent appropriate or inappropriate behaviors and/or successful or unsuccessful managerial decision making. All statements and information provided in this case and any supplemental files are intended to stimulate discussion and serve as a basis for further analysis.

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INTRODUCTION

Eau Claire, WI

October 15, 9am

Welcome! This is your first day at EC-Creamery! You beat out some serious competition to get this job, and this is an opportunity you wouldn't get in a large corporation (at least not at this stage in your career). You look at the name tag the friendly receptionist just handed you as you entered the lobby of EC-Creamery's office building: "Director of Forecasting." Yes, you're a director now... and the roller coaster ride is about to begin. Here comes Darla. You met her when you interviewed a couple of months ago. She is the heart and soul of this company.

Conversation with **Darla Roberts**, Administrative Support Supervisor

Hello my dear! It's so nice to see you again! Here, I have a letter from Georgia for you [see letter below]. She's so sorry she can't be here. She asked me to give you this and convey her sincere apologies.

Letter from **Georgia Kouflakis**, Chief Executive Officer

Welcome to our company! I so very much regret not being able to welcome you in person today. I am delighted to have you join us. On behalf of the entire company, I want to tell you how excited we are to have someone of your caliber join our organization. For me, this is more than a company. It is family, it is heritage... and it is our future. My grandfather came to this country over 60 years ago, and he met and married my grandmother right here in Eau Claire. And it was here that they combined their skills and vision to create what I firmly believe is the world's best yogurt. And that's really how EC Creamery was born. It is a fruit of passion. It is an homage to the rich tradition of dairy farming and to human food culture. Today, you are becoming a part of this culture and a part of our family. Just as I hope that you will flourish here, I hope that you will help our company flourish. On behalf of all of us at EC Creamery: welcome, my friend!

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Conversation with **Darla Roberts**, Administrative Support Supervisor

She's such a sweet woman, isn't she? Anyway, let me help you get set up. I'll show you to your office and then we can go over your schedule for the day. I've set up some brief meetings for you so that you can meet the key players and hit the ground running!

Eau Claire, WI

October 15, 10:30am

Conversation with **Mitch McDonathan**, Vice President of Sales

Come in and have a seat on my Italian leather sofa over here. I've heard a lot of good things about you, and I'm glad you have a chance to meet me before you get going here. Actually, I was hoping you'd be assigned to work under me. But then the Chief Operating Officer insisted you work directly for him... Well, you may work for me soon enough...

Why don't you tell me a bit about yourself? Or, wait, why don't I tell you about myself first: I'm the VP of Sales here, but you can call me Mitch. I've been with the company for 18 years, and I think it's fair to say I've had a pretty great career here. Some people say that I will be the next CEO once Georgia Kouflakis finally retires... or is relieved of her duties... Anyway, my point is: I have a lot of influence here, and I want you to know that your good work and loyalty will never be forgotten.

So, let me tell you a little bit about your job. So, they say you're a well-trained forecaster, huh? Well good for you – glad to know you read all your textbook chapters in college [chuckles]. But let me tell you how this really works here. You know, the key purpose of forecasting is to make sure we have projections we can beat. If you say we should sell X units next month, and then we sell less than that... well, that's not an option. You get my point here? As I always say: "Underpromise and overdeliver!" [laughs raucously]. So, listen, you're a team player right? Good old Bernie [your predecessor] sure was. You gotta aim low, my friend. That

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way, our sales teams hit their targets... and then some... and that means nice bonus checks in the mail. And no bonus checks means... well, short careers for forecasters [laughs loudly].

Anyway, my friend, it's good to talk to you. Tell me, where did you work before you came here? Oh, shoot! I gotta run... I'm a very busy man, you know.

Eau Claire, WI

October 15, 11:45am

Conversation with **Rita DeKazean**, Chief Marketing Officer

Ok, walk with me. Listen, I know this is your first day, but I'm going to give it to you straight. I don't have time to babysit you, and this is not some playground for you to roam around and explore. I know Georgia is in love with her yogurt, but this is a business operation, not a fairytale. We know how to make yogurt alright. But we need to market and sell it. And we need to make money doing it.

*It's really quite simple: We have two key products we're focusing on: GreeCream and YoCream. GreeCream is a very rich and thick yogurt. That's why our competitors mock our slogan "EC-Creamery – From Eau Claire straight to your **heart** hips" – not funny, if you ask me! Anyway, YoCream is our value product and a bit lighter. The unit price is the same for both GreeCream and YoCream, but there's more yogurt in each cup of YoCream.*

Here in the northern region, we have about a 20% market share in this category, but much less in our southern sales region. But I think it could be more. Consumers like our yogurt, and we sell it at the right price. My team and I make sure of all that. You have only one concern: Tell us where sales are headed. We need to do a much better job providing good customer service. If our products are constantly out of stock, consumers will turn away from our brand and buy that cheap stuff the other guys make. And if we can't get our act together on the operations side of the house, then that's what's going to happen. And let me tell you, I won't be the one to blame here!



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Anyway, sorry I'm venting here. It's been a rough few months. We want to grow into other markets, and we all agree that we have the right product. It just seems like we can't get the basics right. What good is a great yogurt when you can't get it in the hands of consumers in the right place, in the right quantity and at the right time? That's where you come in, my friend. You hold the key to our success. Your forecasts give all of us the marching orders: marketing, sales, production, distribution, procurement and everyone else. And right now, we're neither on track nor in sync. So please do your best. We need solid forecasts and we need them asap!

Eau Claire, WI

October 15, 2:15pm

Conversation with Eric Johansen, Operations Manager

Good to meet you. Have you ever seen a shop floor? Let's go for a walk while we talk.

This is where the magic happens! We can produce in excess of 40,000 cups of yogurt per day... and if it were up to me, we would. But hey, what do I know, right? I don't wear a suit, and I don't have a corner office... They give you a corner office, too? I'm sorry... I didn't mean that. I'm just a bit frustrated with these ivory tower types. It's all top down, you know. They give us crazy numbers and targets and guidelines... and then they complain when it all goes south. At least once a month, I have that Rita from marketing breathing down my neck. You talk to her yet? Like it's my fault they stock out all the time.

Look, if they tell me to make, say, 10,000 cups a day, then that's what I'll do. And then they figure out that they really needed more. And then they want more right the next day. How am I supposed to do that? Like I said, I can easily deliver 1,200,000 cups a month, no problem. But we need proper planning. And I'm not just talking strategic planning here. We need SKU-level sales and production plans. Those bigwigs just don't seem to get that.

I'm sorry if I sound cranky. I'm just tired of this. But listen, I truly am glad you're here. I think you can make a difference. Why can't we all work together to sort this out, right? I'll do



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the best I can. All I need is some decent forecasts. Give me some realistic figures to work with, not those phony numbers that Mitch from Sales fed your predecessor, Bernie. Bernie was a good guy, you know. But he was just a pawn in this game. Anyway, enough of this. Thanks for taking the time to come down here and listen to me. Let me know how I can help.

Eau Claire, WI

October 15, 3:30pm

Conversation with **Tesha Trixell**, Director of Accounting

Ah, the newbie... Welcome aboard! It's good to finally meet you! Did you have a good first day? Who all did you meet with? Did you talk to Mitch yet? Don't let him scare you! The same is true for Rita. She's tough on the outside but a real sweetheart once you get to know her. And Georgia? She's such an inspiration, don't you think? But she's not a numbers girl... that's why she hired me! And let me tell you, she made a good choice.

I'll do my best to give you all the information you need. Georgia told me you would need sales figures for the past few years. I didn't know how far back you wanted me to go, so I just got you everything we have. We keep our sales data in the system for four years, you know. We have a very old and simple system that only captures total sales in dollars and total orders in cases. Just know that our prices are generally the same across both of our SKUs and they're pretty constant over time. It was only in the beginning of this year [January, Year 5] that we raised prices by 30% across the board. Can you believe that we hadn't raised our prices in six years before that? And you know what the crazy thing is? Our GreeCream still flies off the shelves, at least up here in the North! Kudos to those marketing and sales folks, right? Anyway, here's the data [points at the Excel file on her screen]: four years of monthly sales data for each SKU and region. We have two distribution centers that serve what we call the North and South regions, respectively. I still giggle when I think that they call Iowa the "South."

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I'll have one of my people – his name is Mick – walk you through everything first thing in the morning. He'll fill you in on all the nitty gritty.

Have a great evening now... and good luck to you – I mean it!

Eau Claire, WI

October 16, 8:30am

Conversation with Michael “Mick” Witherton, Data Specialist

Good morning! I'm Mick, and I'm here to help you. I believe you met Tesha yesterday, right? She got me up to speed on what you need. It's quite simple actually: You're getting SKU-level data for four years and for both the North and South regions. But I think Tesha told you that already, right?

Now here's the deal: We don't have data for February, March and April of last year. A glitch in the system, you know... and we lost all the sales and order data. I'm glad you weren't around back then. It wasn't a pretty sight. I thought Cesar, our Chief Operations Officer, was going to have a heart attack. You probably haven't met him yet – he's on vacation. That's a good thing! Gives you a bit of time to get up to speed. He will want results when he gets back next week...

I'm also giving you order data. These are the orders the retailers place with our distribution centers [North and South]. The retailers are not happy with us; I can tell you that. Our current order fill rate is just about 88% on average, and our customers want it to be at least 97%! A friend of mine works for a local retail chain, and he's told me they might drop us if we don't get our act together real soon... [gazes out the window]

Anyway, back to business! Now this data is my baby, but I'm not going to lie to you: I'm not sure how accurate all these numbers are. There are a handful of issues in there, if you know what I mean. But hey, I'm sure you'll figure all that out much faster than I ever could. More power to you! I hear that our future – and my job security – depends on you.



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Eau Claire, WI

October 16, 10:30am

Email from Cesar Menendez, Chief Operating Officer

Subject: Welcome

Hello. Am out of the office this week; will check in with you next week. Be ready to discuss forecasts. Also, we need to do a better job planning sales and operations based on agreed upon forecast figures and goals. Please think about this and propose a process. Thanks.

Eau Claire, WI

October 16, 10:35am

Sitting in your new office, you stare at the notes from all your meetings. Numbers flicker on the computer screen. You look at your business card again: “Director of Forecasting.” As you read the COO’s email again, you realize that your job isn’t “just” about forecasting. It’s ultimately about helping to integrate decision-making across the entire business. This is what sales and operations planning (S&OP) is all about. You feel the weight of the responsibility given to you and recognize how much of the company’s success rests on your shoulders. Time to get to work!

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*Please refer to the data set in the Excel file that is provided along with this case study.
The data set is current (i.e., it includes all data up until and including September of Year 5).*

Your tasks:

1. Generate sales forecasts (in \$) for the GreeCream and YoCream SKUs and for both the North and South regions for the next six months (Oct, Nov, Dec, Jan, Feb, Mar). To do so, you will need to cleanse the data, select the relevant data, and then select and implement appropriate forecasting methods.
2. Please document your work for 1) above in a memo for review by the Chief Operating Officer (COO). In this memo please briefly address the following:
 - a. Briefly explain how you detected corrupt/inaccurate data points and if/how you addressed these issues prior to implementing your forecast calculations.
 - b. Did you use sales (in \$) or orders (in cases) or both to generate your forecast? Why? Did you consider product prices in your forecast calculations? If so, how?
 - c. Which forecasting method(s) did you use and why? What characteristics of data did you consider in selecting your forecasting method(s)?
 - d. Apart from obtaining point forecasts, can the same data set be used to assess demand variability? If so, which decision(s) can be made based on demand variability?
3. It is apparent that, historically, EC-Creamery struggled with poor (biased) forecasts, poor customer service levels, and poor relationships with its retail customers. What are the underlying root causes for these problems?
4. How/why might implementing a sales & operations planning (S&OP) process help the company? Please explain what such a process would look like. Please try to be specific: what are some specific (sub-)processes of S&OP and how would their implementation serve to address the challenges EC-Creamery is facing?

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EVALUATION:

Your performance will be evaluated based on

- how accurate your forecasts are. To that end, your forecasts will be compared to the “best possible” forecasts [benchmarks] developed by a group of forecasting experts. Grading will be based on mean absolute percentage errors.
- how clear, compelling and concise your explanations and comments to the COO are (in response to Q.2-4).