



**Boston University** School of Management  
Feld Career Center

# Operations Management



# Operations Management

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## **Career Path & Job Information**

(extracted from *Wet Feet*)

Operations consists of all the activities that contribute *directly* to a company's main line(s) of business.

Consider a company like Gap, which manufactures and sells clothing in its own stores. Operations for Gap would include everything from the manufacturing of Gap clothing, to the shipment of that clothing to Gap's retail stores, to the systems the company uses to track clothing that's sold at regular prices, at sale prices, returned by the customer, and so on. It would also include the fulfillment of orders placed on the company's website, and the customer service staff that helps customers with **purchases**, problems, complaints, or other issues.

People in operations work to make sure their employers' businesses run smoothly, effectively, and professionally. This includes everyone from management to assembly line workers, mailroom workers, and the guys loading and unloading trucks in manufacturing and retail company distribution centers. Office managers, purchasing managers, supply chain managers, manufacturing process consultants, brokerage firm back-office employees (who make sure the securities transactions entered into by the firm's traders, salespeople, and brokers are completed in a timely and accurate manner)-all of these are operations professionals.

Operations work exists in all companies, but there are some industries that are operations-intensive and provide more operations opportunities than other industries. These are manufacturing, transportation, banking, financial services, retail, telecommunications, and health care. Because all managers manage processes of some sort, operations skills are required for all managerial roles.

If you're the type of person who knows how to get things done, a career in operations may be for you. Operations professionals understand that the little pieces create the big corporate picture. They make sure each area of a company functions as it should.

## **What You'll Do**

The operations team creates the infrastructure of a company. Operations employees help determine where an organization should be based, its employment policies, accounting practices, distribution channels, and much more. While individual departments determine how corporate procedures are implemented, operations makes sure they are designed optimally in the first place.

The chief operations officer (COO) is a senior member in most organizations. The COO works with the CEO and company president to determine the company's vision. Their ideas are filtered down through the rest of the company.

Senior operations managers determine where an organization is based, what its facilities will look like, which vendors to use, and how the hiring policy will be implemented. Once the key decisions are made, lower-level operations personnel carry them out. If a problem exists, operations personnel will be the first to hear about it. They work to find a solution, and then set about fixing the problem.

While operations is a key component of any successful company, it is back-end work. Most support functions fall under operations' control. Such functions include customer service, logistics, production, maintenance,

and administration. Sometimes, depending on the size and scope of an organization, operations will also include sales, accounting, programming, and marketing. The goal of the operations department is to find solutions before they affect the bottom line.

There are a variety of positions for MBAs across multiple sectors including:

- Finance
- Health Care
- Hospitality
- Consulting
- Legal Services

In the Manufacturing Sector, common OM titles include:

- Quality Management Specialist (Green Belt/Black Belt)
- Master Production Scheduler
- Purchaser
- Supply Chain Analyst

In the Service Sector, Common OM titles include:

- Medical Practice Manger
- Customer Service Manager
- Purchaser (retail goods)
- Quality Management Specialist

### **Career Tracks/Sample Titles**

The operations department is responsible for ensuring a company operates as efficiently and economically as possible. Exactly which functions it controls depends on the size and structure of the organization.

Following are common operations-related positions:

#### **Facilities Coordinator**

Facilities coordinators are responsible for the physical environment of an organization and how a building's design, layout, furniture, and other equipment affect the efficiency and profitability of the business that uses them. The facilities coordinator buys office furniture and supplies, determines when more space is needed, selects appropriate vendors, and is responsible for the facilities budget. A business management background and keen understanding of how working environments affect employee productivity are prerequisites for the job.

#### **Procurement Analyst/Purchasing Manager**

Purchasing managers oversee purchasing operations for an organization. Junior roles, such as procurement analysts, typically focus on a single aspect of procurement and purchasing. For instance, a procurement analyst might work primarily on analyzing historical purchasing costs for materials, forecasting future costs, or finding prospective vendors. In large organizations, purchasing is a large and strategic endeavor. Purchasing involves identifying suppliers from which to source materials, selecting those suppliers, negotiating supply contracts, developing the business frameworks for those contracts, and managing suppliers. Purchasing managers work with materials managers and manufacturing departments to identify the material needs for the

organization. Moreover, purchasing managers develop metrics on which to base management of procurement costs, delivery times, service levels, and quality.

Purchasing managers need top negotiation and communication skills.

### **Logistics Analyst/Manager**

Analysts and managers in this field work on a wide range of logistics functions, including warehouse and distribution operations, forecasting, planning, logistics information systems, customer service, and purchasing. Analyst roles might deal with an area within the logistics function, while senior roles, such as manager or director, involve overseeing a team of analysts. Managers negotiate and contract with suppliers and carriers, develop supply chain metrics and strategy, and oversee day-to-day management of logistics functions. Analysts devote much of their days to problem solving, forecasting, and ensuring that operations are running within determined metrics.

### **Process Engineer**

Process engineers typically analyze processes within any number of industries—manufacturing, distribution and transportation, or retail—and develop improved processes that make better, safer use of labor, materials, energy, and other resources. For instance, a process engineer in a distribution center might work to improve outbound and inbound traffic processes or invoice handling. In a manufacturing environment he might develop a better method for handling raw materials. Additionally, he might develop the metrics used to manage the processes once they've been improved.

### **Transportation Manager**

Transportation managers typically work under logistics managers to oversee the inbound and outbound traffic of materials and finished products from a distribution center. Transportation managers will often manage carriers, transportation costs within specified metrics, third-party transportation providers, and freight bill presentation; negotiate contracts; and ensure that freight moves smoothly across international borders.

### **Warehouse Operations Manager**

The warehouse operations manager typically works in the retail, distribution, and transportation industries. Warehousing managers find among their responsibilities optimizing/managing placement of inventory within the warehouse, ensuring that inventory levels are accurate, and overall management of warehouse personnel. Managing warehouse personnel entails oversight of supervisors and workers, hiring workers and managing worker performance, and ensuring that the warehouse meets regulatory safety requirements.

### **Customer Service Manager**

The customer service manager leads teams of customer service representatives in resolving issues and maintaining high customer satisfaction. The role involves ensuring that contractual support representatives meet contractual service levels, defining those service levels, developing support center processes, and working with other functional areas to control service costs while maintaining customer satisfaction.

### **Product Development Manager**

A product development manager might determine scientific and technical goals within broad outlines provided by top management. Her program might include the redesign of a product, improvements in manufacturing processes, or development of a new product offering. She might make detailed plans for the accomplishment of these goals. For example, working with her staff, she may develop the overall concepts of a new product or identify technical problems standing in the way of project completion.

### **Manufacturing Engineer**

Manufacturing engineers are the people that make manufacturing happen—they take a product design and

figure out how that product will be manufactured. They define, design, and improve the machinery and low-level processes by which products are created. The role is a big one. The manufacturing engineer develops processes, identifies and prioritizes improvement opportunities, and executes those improvements. He is well versed in process technologies, automation equipment, operations methodologies, statistical controls, and affiliated technologies and methodologies. He documents changes in processes, communicates those changes, and oversees the implementation of those processes. He typically works with small teams in the manufacturing area and is considered the technical resource in a plant.

### **Logistics Engineer**

A business needs to plan how work orders will be distributed throughout its organization. The logistics engineer is the person primarily responsible for such planning. She is interested in improving the efficiency and accuracy of order fulfillment, and will map out the process from beginning to end, always on the lookout for possible improvements. This is a detail-oriented position that requires strong problem-solving skills and an in-depth analysis of business processes.

### **Operations Analyst**

An operations analyst studies how the current operations infrastructure is working. These folks attempt to find areas where the system breaks down, and then find ways to improve it. Strategies may include changing the work environment or employment policies, using different vendors, or transforming work processes. There is a great deal of administrative work involved. This position answers to the operations manager.

### **Operations Manager/Director**

The operations manager or director watches over his department, the size and scope of which depends on the organization involved; a large company may have several operations managers. Their job is to determine how the processes in their departments should be implemented and what duties need to be performed. An operations manager hires and manages lower-level staff, selects the vendors, completes departmental financial analyses, and determines the budget. The operations manager reports to the VP of operations or chief operations officer (COO).

### **Chief Operations Officer (COO)**

One of the senior managers in any business organization, the chief operations officer is responsible for making sure that the entire back end of an organization operates as efficiently as possible. Other senior managers in operations roles report to the COO.

### **Requirements**

While you can get a customer service job with little experience, most operations positions require a four-year degree and at least some industry background. If you are interested in climbing the corporate ladder, you should consider getting an advanced degree.

Most VPs and COOs have an MBA, and many have a PhD. Without such degrees, promotions to higher levels will take longer. It may also be more difficult to land a job at another organization.

To be promoted, an individual must prove that she can be a good supervisor, get a job done right the first time, manage all aspects of a project, and keep it within budget parameters. A detail-oriented personality, strong analytical skills, and the ability to thrive in a team environment are necessities.

## Necessary Skills & Experience

### Who Does Well

Anyone considering a career in operations should have the ability to see the big picture. Since problems often show up in the most unexpected places, you need to see beyond your current task. Most operations departments are team environments. There may be many employees doing virtually the same tasks. Daily meetings may be required to set up group goals and assignments.

For most careers in the field, operations personnel should also be highly analytical, detail-oriented, and able to work with individuals throughout an organization.

Skills required include: project management skills, strong analytical and problem-solving skills, strong financial aptitude, ability to work cross-functionally and cross-departmentally, excellent communication and negotiation skills.

### Interview Preparation

As for any position, candidates need to dedicate a significant amount of time to interview preparation. Those who are well prepared, who know a lot about the company, about the current competitive position of or work being done by the company, about that particular segment of the industry, and about the company's culture, tend to be more confident in the interview process, and this confidence tends to impress companies.

Hiring managers typically want to be convinced that the candidate is a good fit for the job, and that she will add value to the organization. Candidates should come into the interview having done significant research on the organization and the industry in general, and *should be prepared for case-based interviews*.

Simply put, a case interview is the analysis of a business question. Unlike most other interview questions, it is an interactive process. Your interviewer will present you with a business problem and ask you for your opinion. Your job is to ask the interviewer logical questions that will permit you to make a detailed recommendation. The majority of case interviewers don't have a specific answer that you, the candidate, are expected to give. What the interviewer is looking for is a thought process that is both analytical and creative (what consultants love to call "out-of-the-box" thinking). (Case interviews are not something you can "wing." To effectively crack a case, you need knowledge of the frameworks and lots of practice.)

For example, a value-chain case based question might be something like, "You have been appointed the manager of a rental car company. How do you measure its efficiency?"

An organizational change problem might be something like, "Our client has engaged us to assist them in reorganizing their sales force. They want to cut \$50 million in costs from this area over the next two years."

An industry analysis problem might be something like, "Your client is trying to decide whether or not to invest in a helicopter company. You have been asked to assess the long-term attractiveness of the helicopter market." (For solutions to solve these questions, visit [vault.com](http://vault.com).)

Suggestions for helping prepare for a case interview:

- Attend the Case Interview Workshop on September 24 from 4 to 6 pm at SMG. It will be presented by Marc Cosentino, author of *A Case in Point*.
- Read *Case in Point: Complete Case Interview Preparation*, Third Edition, by Marck Cosentino.

- Go on some of the top strategy consulting websites (bain.com; mckinsey.com; bcg.com) and look at their sample cases.
- Study the *Vault Guide to Case Interviewing* available on [www.vault.com](http://www.vault.com)
- Set up a case interview session with a graduate counselor and/or set up your own case study sessions.
- Come in to the FCC on Fridays for Lunchtime Case Interviewing Practice.

## **Recruiting Timeline**

### **Full Time:**

The recruiting season for full-time positions begins in September and extends through the spring. Please note that consulting companies and financial services firms recruit in the early fall time-frame (September-late October) almost exclusively. Also, recruiting for Rotational and Leadership programs is almost always completed by December. (We do have several programs that have an operations rotation or focus.)

While recruiting for some jobs in disciplines like finance occurs months before the hire date, operations jobs are often filled later.

That said, as soon as school begins it is important to network, attend multiple information sessions, do informational interviews, create a target list, and search MiTRAC weekly for opportunities.

### **Internships:**

Many companies begin advertising in the February/March timeframe, interviewing in the March/April timeframe, and extending offers in the late April/May timeframe. Some companies have extended offers as late as June.

## **Companies that Recruit MBAs for Operations Positions:**

This is *just a sampling* of some of the companies that have recently posted or recruited on campus:

- Analog Devices (process engineer)
- Athenahealth (numerous positions)
- BearingPoint (consultants)
- Bank of America (global commercial banking/treasury services MBA leadership program)
- Bridgestar (COO)
- Coach (MBA professional development rotational program)
- Deutsche Post World Net (in-house consultants)
- EMC (operations engineer; numerous other positions)
- Fidelity (financial leadership program; corporate audit)
- Genzyme (project manager)
- Houghton Mifflin (operations strategy group)
- Integrated Project Management Company (project manager)
- Kaiser Permanente (internal consulting)
- Liberty Mutual (corporate development program)
- Monster (MBA executive development leadership program)
- Northwest Airlines (operations analyst)
- Optiant Inc (business consultant)
- PA Consulting (numerous positions)

- Pfizer Inc (internal audit, corporate finance and IT)
- Staples (project manager, portfolio planning)
- Stop & Shop (Operations Manager)
- The Walt Disney Company (project manager)
- TomTom (product line manager)
- United Technologies Corporation (operations leadership program)
- Verizon Wireless (manager, strategic portfolio management)
- Wipro (consultants)

### **Sample Calendar of Events**

The following is partial listing of career-related events and workshops that we have held in past years. Please check MiTRAC for this year's specific events.

- Portfolio Orientation for those interested in joining the Operations Portfolio.
- How do a Case Interview Workshop – Presented by Marc Cosentino
- CareerExpo 2007 Career Fair
- Operations Portfolio Industry Insights—Panel of Operation Professionals discuss their careers and how they got started
- NSHMBA Conference & Career Expo
- Nail that Interview with Bob Ledger
- 2<sup>nd</sup> years present on their summer internship experience to first years
- Federal Express Information Session.

## **Resources**

*BU students should visit MiTRAC for Vault guides and other career information*

## **Associations**

### [Academy of Management - Operations Management](#)

- The Operations Management Division focuses on the management of the transformation processes that create products or services.
- Major topics include operations strategy, product and service development, supply chain management, project management, and quality management, as well as international, human resources, environmental, and IT issues facing operations

### [American Society for Quality](#)

- 104,000-member professional association, established in 1946, with the goal of creating better workplaces and communities worldwide by advancing learning, quality improvement, and knowledge exchange to improve business results.
- Free information includes articles, history of quality with timeline, glossary and standards information.

### [APICS](#)

- APICS is the global leader and premier provider of information and services in production and inventory management and related areas to enable members, enterprises, and individuals to add value to their business performance.
- Resources for members: Best Practices, Career Center, Discussion lists, Consultants Directory, Industry links and more

### [APQC](#)

- A non profit organization providing expertise in benchmarking and best practices research.
- Provides advisory services and free articles and white papers in the areas of Knowledge Mangement, Process Improvement and Performance Measurement

### [\*\*Council of Supply Chain Management Professionals\*\*](#)

- Founded in 1963, CSCMP is an association for individuals involved in logistics and supply chain management. CLM provides educational, career development, and networking opportunities to its 10,000 members.
- \$20 student membership; Atlanta chapter
- Resources for members: Case Studies, Trend Studies, Logistics Software Directory, Career Center & Student Intern Program.

### [INFORMS](#) (Institute for Operations Research and the Management Sciences)

- 12,000 member society representing professionals in the field of Operations Research and the Management Sciences.
- Offers a Student newsletter

- The Online Resources page lists extensive links to companies, journals, newsgroups, job information, computer programs & more.
- [Students in Operation Research](#) is a list for sharing information important to students in the fields of Operations Research and Management Science.

#### [Institute of Operations Management](#)

- The Institute is an organization for people involved in Production Management, Supply Chain Management and Operations Management in manufacturing and service industries.
- Offers a free newsletter, list of related UK web sites and a limited number of free research papers in their Knowledge Bank.

#### [Institute of Supply Management](#)

- Founded in 1915, ISM is the largest supply management association in the world. ISM's mission is to lead the supply management profession through its standards of excellence, research, promotional activities, and education. ISM has 45,000 member professionals with a network of domestic and international affiliated associations.
- Issues on the first business day of each month, the ISM Manufacturing Report On Business® is considered by many economists to be the most reliable near-term economic barometer available.
- Resources for members include: Career Center, CAPS research, On-line courses, Study Guides, Conferences and more.

#### [POMS](#) (Production and Operations Management Society)

- Founded in 1989; Members: 1100
- The Society's approach to Production and Operations Management is problem-centered; it does not rely on particular methodologies.
- Publishes the journal *Production and Operations Management*
- The [OM Encyclopedia](#) on the web site includes definitions of a wide range of operations management terms.

#### [Supply Chain Council](#)

- 1,000 corporate members world-wide and international chapters in Europe, Japan, Australia/New Zealand, South East Asia, and Southern Africa.
- Membership is primarily practitioners representing a broad section of industries, including manufacturers, services, distributors, and retailers.
- Offers the Supply-Chain Operations Reference-model (SCOR), a process reference model that has been developed and endorsed by the Supply-Chain Council as the cross-industry standard diagnostic tool for supply-chain management. SCOR enables users to address, improve, and communicate supply-chain management practices within and between all interested parties.

#### [Purchasing Management Association of Canada](#) (PMAC)

- national, not-for-profit association and training agency for procurement and supply chain professionals in Canada. The Association has more than 7,000 members working in all sectors of the Canadian economy, including retail, manufacturing and transportation, distribution, government, natural resources and service sectors.
- Offers Career and Education resources

- [Click here](#) for additional Canadian associations & publications

## **Operations Management Resources**

### [Operation Management Center](#)

- OM Center, sponsored by Irwin/McGraw-Hill, provides a focal point for finding operations management resources that are valuable for students and faculty.
- Site includes lists of organizations, on-line OM publications, daily OM news and a list of articles categorized by OM topic.

### [Accenture - Supply Chain Management](#)

- Accenture is a management consulting and technology services company.
- Access is free, but requires registration
- Select Research & Insights - View by Subject - Supply Chain
  - White papers and articles on subjects such as: SC in Asia, the Role of SC Mastery and Rethinking Warranty Management.

## **Operations Focused Journals**

[Journal of Service Research](#)

[European Journal of Operational Research](#)

[International Journal of Operations and Production Management](#)

[Journal of Operations Management](#)