

Fundamentals of Management

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Part Five: Controlling

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- **Chapter Fifteen: Operations Management**
 - Define operations management and explain its role.
 - Define the nature and purpose of value chain management.
 - Describe how value chain management is done.
 - Discuss contemporary issues in managing operations.



Operations Management

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- Operations Management is the study and application of the transformation process.
 - Organizations need to have well-thought-out and well-designed operating systems, organizational control systems, and quality programs to survive in today's increasingly competitive global environment.
 - ✦ And, it's the manager's job to manage those things.



Operations Management

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- The term Operations Management refers to design, operation, and control of the transformation process that converts such resources as labor and raw materials into goods and services that are sold to customers.
 - The system takes inputs – people, technology, capital, equipment, materials, and information – and transforms them through various processes, procedures, and work activities into outputs – finished goods and services.



Operations Management

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- Why is Operations Management so important to organizations and managers?
 - It encompasses processes in services and manufacturing organizations.
 - It's important in effectively and efficiently managing productivity.
 - It plays a strategic role in an organization's competitive success.



Operations Management



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- All organizations produce goods or services through the transformation process.
 - For manufacturers, the products are obvious: they produce physical goods; such as, cars, cell phones, food products, etc.
 - ✦ Raw materials are turned into recognizable products.
 - But the transformation process is not as readily evident in service organizations, because they produce non-physical outputs in the form of services.
 - ✦ For instance, hospitals provide health care services.
 - The U.S. and, to a large extent the global economy, is dominated by the creation and sale of services. Whereas, in lesser-developed countries, the services sector is less important.

Improving Productivity

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- Improving productivity has become a major goal in virtually every organization.
 - For countries, high productivity can lead to economic growth and development.
 - Employees can receive higher wages, and company profits can increase without causing inflation.
 - For individual organizations, increased productivity gives them a more competitive cost structure and the ability to offer more competitive prices.

P R O D U C T I V I T Y

Productivity

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- **Productivity is a composite of both people and operations variables.**
 - In the past, it was believed that managers, not workers, were the primary source of increased productivity.
 - Today, an interplay between people and operations has been revealed.
 - ✦ High productivity can't come solely from good “people management.” The truly effective organization will maximize productivity by successfully integrating people into the overall operations system.



Improving Managers' Productivity

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- William Edwards Deming, an American statistician and professor is widely credited with improving production in the United States during World War II.
 - His philosophy: Focus on increasing quality and reducing costs through continually improving how EE work is done by approaching manufacturing in an orderly, systematic, and logical way.
 - ✦ He offered the following 14 points for improving managers' productivity:
 - Plan for the long-term future.
 - Never be complacent concerning the quality of your product.
 - Establish statistical control over your production processes and require your suppliers to do so as well.
 - Deal with the best and fewest number of suppliers.



Improving Managers' Productivity

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- Deming's Philosophy (continued).
 - Find out whether your problems are confined to particular parts of the production process or stem from the overall process itself.
 - Train workers for the job that you are asking them to perform.
 - Raise the quality of your line supervisors.
 - Drive out fear.
 - Encourage departments to work closely together rather than to concentrate on departmental or divisional distinctions.
 - Do not adopt strictly numerical goals.
 - Require your workers to do quality work.
 - Train your EE's to understand statistical methods.
 - Train your EE's in new skills as the need arises.
 - Make top managers responsible for implementing these principles.



Operations Management

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- Successful organizations recognize the crucial role that operations management plays as part of the overall organizational strategy to establish and maintain global leadership.
 - The strategic role that operations management plays in successful organizational performance can be seen clearly as more organizations move toward managing their operations from a value chain perspective.



Value Chain

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- What is Value Chain Management?



- Let's start from the beginning...

- ✦ Every organization needs customers to survive and prosper.
- ✦ Customers want value from the goods and services they purchase or use, and they decide what has value.
- ✦ Organizations must provide that value to attract-keep customers.
 - Value is defined as the performance characteristics, features and attributes, and any other aspects of goods and services for which customers are willing to give up resources (usually money).
 - Value is provided to customers through transforming raw materials and other resources into some product or service that end users need or desire when, where, and how they want it.

Value Chain

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- Value Chain Management (VCM) is externally oriented and focuses on both incoming materials and outgoing products and services.
 - VCM is effectiveness oriented and aims to create highest value for customers.
 - ✦ Contrast to Supply Chain Management, which is efficiency oriented (its goal is to reduce costs and make the organization more productive) and internally oriented by focusing efficient flow of incoming materials (resources) to the organization.



Value Chain

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- Who has the power in the Value Chain?
 - Is it the supplier providing needed resources and materials?
 - ✦ After all, suppliers have the ability to dictate prices and quality.
 - Is it the manufacturer that assembles those resources into a valuable product or service?
 - ✦ A manufacturer's contribution in creating a product or service is critical.
 - Is it the distributor that makes sure the product or service is available where and when the customer needs it?
 - Actually, it's none of these!
 - In the Value Chain, customers are the ones with power.



Value Chain (Management)

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- **Value Chain**

- The entire series of work activities that add value at each step from raw materials to finished product.

- **Value Chain Management**

- The process of managing the sequence of activities and information along the entire value chain.



Value Chain Management

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- Goals of Value Chain Management:
 - Sequence of participants work together as a team, each adding some component of value – such as faster assembly, more accurate information, or better customer response.
 - The better the collaboration among various chain participants, the better the customer solutions.
 - When value is created for customers and their needs and desires satisfied, everyone along the chain benefits.



Value Chain Management

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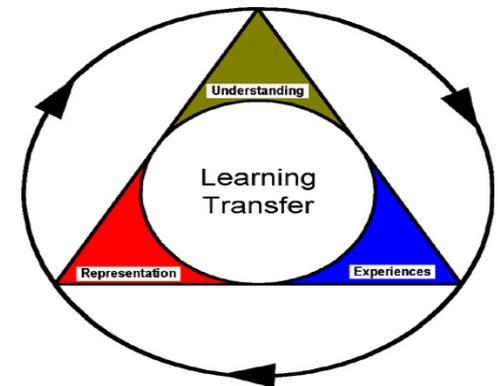
- How does Value Chain Management Benefit Business?
 - Improved procurement (acquiring needed resources).
 - Improved logistics (managing materials, service, and information).
 - Improved product development (close relationships with customers leads to developing products they value).
 - Enhanced customer order management (managing every step to make sure customers are satisfied).



Business Model

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- The dynamic, competitive environment facing contemporary global organizations demands new solutions.
 - Understanding how and why value is determined by the marketplace has led some organizations to experiment with a new Business Model.
 - ✦ A strategic design for how a company intends to profit from its broad array of strategies, processes, and activities.



Value Chain Management (VCM)

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- Requirements for Successful Value Chain Management:
 1. Coordination and Collaboration
 2. Technology Investment
 3. Organizational Processes
 4. Leadership
 5. Employees/Human Resources
 6. Organizational Culture and Attitudes



1. Coordination and Collaboration

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- For the Value Chain to achieve its goal of meeting and exceeding customers' needs and desires, comprehensive and seamless integration among all members of the chain is necessary.
 - All partners in the Value Chain must identify things that they may not value, but that customers do.
 - ✦ Sharing information and being flexible as far as who does what are important steps in building coordination and collaboration.
 - The sharing of information and analysis requires open communication among the various Value Chain partners.



2. Technology Investment

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- Successful Value Chain Management isn't possible without a significant investment in information technology.
 - The payoff from this investment is that information technology can be used to restructure the Value Chain to better serve end users.
 - ✦ According to experts, the key tools include a supporting enterprise resource planning software (ERP) system that links all of an organization's activities, sophisticated work planning and scheduling software, customer relationship management systems, business intelligence capabilities, and e-business connections with trading network partners.



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3. Organizational Processes

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- Value Chain Management radically changes organizational processes – that is, the way organizational work is done.
 - Managers must critically evaluate all organizational processes from beginning to end by looking at core competencies – the organization’s unique skills, capabilities, and resources – to determine where value is being added. Non-value-adding activities are eliminated.



3. Organizational Processes

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- Three important conclusions can be made about how organizational processes must change:
 - Better demand forecasting is necessary and possible because of closer ties with customers and suppliers.
 - Selected functions may need to be done collaboratively with other partners in the value chain.
 - New measures are needed for evaluating the performance of various activities along the value chain.
 - ✦ Because the goal in Value Chain Management is meeting and exceeding customers' needs and desires, managers need a better picture of how well value is being created and delivered to customers.



4. Leadership

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- **Successful Value Chain Management isn't possible without strong and committed leadership.**
 - Managers must make a serious commitment to identifying what value is, how that value can best be provided, and how successful those efforts have been.
 - Leaders must outline expectations for what's involved in the organization's pursuit of Value Chain Management.
 - ✦ Articulating expectations should start with a vision or mission statement that expresses the organization's commitment to identifying, capturing, and providing the highest possible value to customers.
 - ✦ Managers should clarify expectations regarding each EE's role in the value chain, as well as, those of partners.

Leadership

5. Employees/Human Resources

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- Employees are the organization's most important resource, and play an important part in Value Chain Management.
 - EE's must have flexibility in what they do and how they do it.
 - EE's must have proper training and sufficient knowledge.
- Three main human resources requirements for Value Chain Management are flexible approaches to job design, an effective hiring process, and ongoing training.
 - Jobs need to be designed around work processes that link all functions involved in creating and providing value to customers.



6. Organizational Culture and Attitudes

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- The last requirement for Value Chain Management is having a supportive organizational culture and attitudes. Those cultural attitudes include sharing, collaborating, openness, flexibility, mutual respect, and trust.
 - And these attitudes encompass not only the internal partners in the value chain, but external partners as well.



Obstacles to Value Chain Management

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- **Organizational Barriers**
 - These barriers are among the most difficult obstacles to handle.
 - They include refusal or reluctance to share information, reluctance to shake up the status quo, and security issues.
- **Cultural Attitudes**
 - Unsupportive cultural attitudes – especially trust and control – can also be obstacles to VCM.
- **Required Capabilities**
 - For successful implementation of the VCM, partners need numerous capabilities; including coordination and collaboration, the ability to configure products to satisfy customers and suppliers, and the ability to educate internal and external partners.
- **People**
 - The final obstacles to successful VCM can be an organization's people.
 - Without their unwavering commitment, flexibility, time and energy to do whatever it takes, VCM won't be successful.

Contemporary Issues



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- **Technology needed for Operations Management**
 - Managers who understand the power of technology to contribute to more effective and efficient performance know that managing operations is more than the traditional view of simply producing the product.
 - ✦ Instead the emphasis is on working together with all the organization's business functions to find solutions to customers' business problems.



Contemporary Issues



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- Project Management

- Project management is the task of getting business activities done on time, within budget, and according to specifications.
- Organizations are increasingly undertaking projects that are somewhat unusual or unique, have specific deadlines, contain complex interrelated tasks requiring specialized skills, and are temporary in nature.
 - ✦ These projects don't lend themselves well to the standardized operating procedures that guide routine and continuous organizational activities.



Contemporary Issues



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- Quality Control

- Quality problems are expensive.
- Organizations unable to produce high-quality products won't be able to compete successfully in the global marketplace.



Quality

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- Product Quality Dimensions

- Performance – operating characteristics
- Features – important special characteristics
- Flexibility – meeting operating specifications over a period of time.
- Durability – amount of use before performance deteriorates
- Conformance – match with pre-established standards
- Serviceability – ease and speed of repair or normal service
- Aesthetics – how a product looks and feels
- Perceived Quality – subjective assessment of characteristics (image)

QUALITY 

Quality

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- Service Quality Dimensions

- Timeliness – performed in promised period of time
- Courtesy – performed cheerfully
- Consistency – giving all customers similar experiences each time
- Convenience – accessibility to customers
- Completeness – full service, as required
- Accuracy – performed correctly each time

QUALITY 

Quality

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- To publicly demonstrate their commitment to quality, many organizations worldwide have pursued challenging quality goals. The two best-known are the following:
 - ISO 9000
 - ✦ ISO 9000 is a series of international quality management standards established by the International Organization for Standardization, which sets uniform guidelines for processes to ensure that products conform to customer requirements.
 - Standards cover everything from product design to product delivery.



International
Organization for
Standardization

Quality

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- To publicly demonstrate their commitment to quality, many organizations worldwide have pursued challenging quality goals. The two best-known are the following:
 - Six Sigma
 - ✦ Six Sigma is the Greek letter that statisticians use to define a deviation from a bell curve. The higher the sigma, the fewer the deviations from the norm. That is, the fewer defects.
 - ✦ At one sigma, two-thirds of whatever is being measured falls within the curve. Two sigma covers about 95 percent. At Six Sigma, you're about as close to defect-free as you can get.
 - Six Sigma is a quality standard that establishes a goal of no more than 3.4 defects per million units or procedures.

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