

Course: Microsoft Visio for Accounting Information System

Lecture 10: Production Cycle

Lecturer: Dimaz Ramananda

WELCOME!
MICROSOFT VISIO FOR
ACCOUNTING INFORMATION SYSTEM

Production Cycle

The production cycle, often referred to as the manufacturing cycle, is a fundamental concept in operations management. It represents the sequence of steps and activities that a product or service goes through, from the initial idea or design stage to its final delivery to the customer. This cycle is the core of any manufacturing or production process and has a substantial impact on an organization's efficiency, quality, and overall success.

Production Cycle

The production cycle is a structured and systematic process for transforming raw materials, components, or information into finished goods or services. It is a critical part of the value chain and plays a pivotal role in creating value for the end customer while optimizing resource utilization and minimizing waste.

Production Cycle Stages

1. Design and Planning
2. Sourcing and Procurement
3. Production
4. Quality Control

Production Cycle in Accounting

The production cycle in accounting refers to the financial management of the processes involved in producing goods or services. This cycle is crucial in tracking the flow of costs and revenues associated with manufacturing operations, making it an integral part of financial management and reporting. The accounting aspects of the production cycle are closely tied to the fundamental principles of cost allocation, inventory valuation, and financial reporting.

Key Stages of the Production Cycle in Accounting

1. Cost Estimation and Planning
2. Purchasing and Inventory
3. Production
4. Quality Control
5. Inventory Valuation
6. Sales and Revenue Recognition
7. Cost of Goods Sold (COGS)

Production Cycle and AIS Relationship

The production cycle and the AIS are closely interconnected in any business that engages in manufacturing or production. The production cycle involves the conversion of raw materials or components into finished goods, while the AIS is responsible for collecting, processing, and reporting financial data related to the organization's activities. The relationship between these two elements is crucial for maintaining financial control and transparency.

Production Cycle and AIS Integration

The integration of the production cycle and an AIS refers to the harmonious collaboration between the operational processes of production and the financial data management capabilities of the AIS. This integration ensures that financial transactions originating from production activities are seamlessly captured, recorded, and reported in real time. It is a critical component of modern business operations, as it promotes financial transparency, accurate decision-making, and regulatory compliance.

Key Components of Integration

- Real-time Data Capture and Reporting
- Automated Data Entry
- Seamless Cost Allocation
- Real-time Inventory Management

Stage of Manufacturing & Inventory Management

1. Demand Forecasting
2. Production Planning
3. Material Procurement
4. Production Process
5. Inventory Storage and Management
6. Quality Control and Inspection

Stage of Manufacturing & Inventory Management

7. Order Processing
8. Inventory Tracking and Replenishment
9. Distribution and Shipping
10. Returns and Defect Management
11. Reporting and Analysis

Microsoft Visio

Microsoft Visio is a diagramming and visualization software that empowers users to create a wide range of diagrams, charts, and flowcharts to represent complex systems, processes, and data flows. When applied to AIS, Visio becomes a versatile tool for accounting professionals to visualize, document, and optimize various aspects of accounting processes.

Key Functions of Microsoft Visio in AIS

- Process Mapping and Workflow Visualization
- Flowcharting Accounting Procedures
- Data Flow Diagrams (DFD)
- Entity-Relationship Diagrams
- Internal Control Documentation
- Audit Trail Visualization

Advance Functions and Applications

- System Integration Mapping
- Business Process Improvement
- Training and Documentation
- Project Management
- Customization and Automation

Visualizing Production Planning & Control

Visualizing the Production Planning and Control (PPC) process using Microsoft Visio is a valuable approach for enhancing manufacturing operations. PPC is critical for coordinating resources, managing production schedules, and ensuring efficient workflows. Microsoft Visio, with its versatile diagramming and visualization capabilities, provides a powerful tool to create clear and intuitive representations of the PPC process.

Key Techniques for Visualizing

- Gantt Charts
- Kanban Boards
- Flowcharts
- Capacity Planning Heatmaps

Benefits of Visualizing

- Enhanced Transparency
- Efficient Scheduling
- Resource Allocation
- Issues Identification

Mapping the PPC

Mapping the Production Planning and Control (PPC) process on Microsoft Visio is an effective way to enhance manufacturing operations. PPC involves coordinating resources, managing production schedules, and ensuring efficient workflows, and visualizing it through Visio helps streamline processes and improve decision-making.

Key Techniques

- Process Flowcharts
- Value Stream Mapping (VSM)
- Resource Allocation Diagrams
- Timeline and Gantt Charts

Benefits of Mapping PPC with Visio

- Enhanced Understanding
- Efficient Scheduling
- Resource Optimization
- Issue Identification

Case Study

Company Wild Wild East, a manufacturing organization, employed Microsoft Visio to map their PPC process. What is the results?

Addressing PPC

Addressing Production Planning and Control (PPC) aspects through diagrams is a valuable approach to streamline manufacturing processes, enhance communication, and optimize operational efficiency. Visual representations, such as flowcharts, Gantt charts, and value stream maps, offer a clear view of the entire PPC process, enabling organizations to make informed decisions and reduce waste.

Key Diagrams

- Flowcharts
- Gantt Charts
- Value Stream Maps (VSM)
- Resource Allocation Diagrams

Benefits

- Enhanced Clarity
- Efficient Scheduling
- Waste Reduction
- Issue Identification

Designing Production Cycle Visuals

Designing production cycle visuals is a practical and valuable application for enhancing the understanding, communication, and management of production processes within an organization. Visual representations, such as flowcharts, value stream maps, and Gantt charts, help illustrate the sequence of activities, dependencies, and resource allocation in the production cycle.

Key Visuals

- Flowcharts
- Value Stream Maps (VSM)
- Gantt Charts
- Resource Allocation Diagrams

Benefits

- Enhanced Understanding
- Efficient Scheduling
- Waste Reduction
- Issue Identification

Case Study

Company *Ugreat*, a manufacturing organization, implemented flowcharts and Gantt charts to design visuals for their production cycle. What is the results?

Tips for Designing Production Cycle

1. Start with a Clear Objective
2. Select the Right Template
3. Use Standard Symbols and Shapes
4. Color Coding

Tricks for Designing Production Cycle

1. Custom Shapes and Stencils
2. Data-Driven Diagrams
3. Alignment and Spacing
4. Hyperlinks and Interactivity

Best Practices and Conclusion

- Collaborate and Seek Feedback
- Keep it Simple
- Review and Revise
- Documentation

Enhancing Production Cycle

Enhancing the production cycle is a critical endeavor for organizations seeking to improve efficiency, reduce costs, and meet customer demand more effectively. The production cycle encompasses a series of interconnected activities, from raw material acquisition to finished product delivery.

Strategies for Enhancement

1. Streamline Processes
2. Automation and Technology
3. Optimize Inventory Management
4. Supplier Relationships

Approaches

1. Quality Control and Continuous Improvement
2. Employee Training and Development
3. Capacity Planning and Resource Allocation
4. Production Cycle Visualization

Monitoring and Adaption

1. Key Performance Indicators
2. Data Analytics
3. Feedback Loops
4. Continuous Adaptation

CLOSING

**THANK YOU AND
HAVE A WONDERFUL DAY!**