



Level 5 Diploma in Management (890) 139 Credits



Unit: Operations Management	Guided Learning Hours: 300
Exam Paper No.: 1	Number of Credits: 30
Prerequisites: Business/office administrative knowledge.	Corequisites: A pass or higher in Certificate in Business Studies or equivalence.
<p>Aim: The main purpose of this unit is to examine the concepts for designing, planning and improving manufacturing and service organisations. Topics include enterprise resource planning, facility layout, forecasting, queuing models, inventory management, lean manufacturing, total quality control, and project management. The intention is to further provide management and analytical concepts/tools for the management of operations and the decision-making process within the scope of the supply chain. Competitive advantage driven by supply chain strategy has been a common practice in the business environment in the past few years. Most of these strategies involve improving operational efficiency either through cost reductions or increase capital efficiency. Decision-making regarding operational issues is one of the most common tasks within organisations. This unit will enhance learners' ability to perform the quantitative analysis necessary and understand the management issues in order to make good operational decisions within the supply chain.</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
Special Requirements: The unit requires a combination of lectures, demonstrations and discussions.	
<p>Intended Learning Outcomes:</p> <p>1 Understand how Operations management provides add value to different organisations, be it producing goods or services, or in the private, public or voluntary sectors.</p> <p>2 Understand competitiveness, strategy, and productivity; different ways companies compete; how effective strategies leads to competitive organizations, and why productivity is important.</p> <p>3 Understand averaging techniques, trend and seasonal techniques, regression analysis, used in solving typical problems.</p>	<p>Assessment Criteria:</p> <p>1.1 Identify the major functional areas of organisations and describe how they interrelate.</p> <p>1.2 Compare and contrast service and manufacturing operations.</p> <p>1.3 Describe the operations function and the nature of the operations manager's job.</p> <p>1.4 Differentiate between design and operation of production systems.</p> <p>1.5 Describe the key aspects of operations management decision making.</p> <p>1.6 Identify current trends in business that impact operations management.</p> <p>1.7 Identify the major functional areas of organisations and describe how they interrelate</p> <p>2.1 Describe the primary ways that business organisations compete.</p> <p>2.2 Describe reasons for the poor competitiveness of some companies.</p> <p>2.3 Define the term strategy and explain why strategy is important for competitiveness.</p> <p>2.4 Compare and contrast strategy and tactics.</p> <p>2.5 Describe and give examples of time-based strategies.</p> <p>2.6 Define the term productivity and explain why it is important to organisations and to countries.</p> <p>2.7 Describe and compare organisation strategy and operations strategy, and explain why it is important to link the two.</p> <p>3.1 Outline the steps in the forecasting process.</p> <p>3.2 Describe forecasting and the elements of a good forecast.</p>

<p>4 Understand product and service design; how customer satisfaction begins with product and service design; the systems approach to designing products and services, addressing the needs of stakeholders.</p>	<p>3.3 Describe qualitative forecasting techniques and the advantages and disadvantages of each. 3.4 Compare and contrast qualitative and quantitative approaches to forecasting. 3.5 Describe ways of evaluating and controlling forecasts. 3.6 Identify the major factors to consider when choosing a forecasting technique.</p>
<p>5 Strategic Capacity Planning for Products and Services; how important strategic capacity planning is for products and services and broad classes of capacity planning.</p>	<p>4.1 Define key reasons for design or redesign. 4.2 Identify the main objectives of product and service design. 4.3 Describe the importance of standardisation. 4.4 Explain the importance of legal, ethical, and environmental issues in product and service design. 4.5 Describe the phases in product design and development. 4.6 Describe the phases in service design. 4.7 Explain the strategic importance of product and service design</p>
<p>6 Process selection and facility layout as the way in which work stations, equipment, machinery and employees are positioned within a work facility.</p>	<p>5.1 Explain the importance of capacity planning. 5.2 Describe ways of defining and measuring capacity. 5.3 Describe the determinants of effective capacity. 5.4 Explain the major considerations related to developing capacity alternatives. 5.5 Describe approaches that are useful for evaluating capacity alternatives</p>
<p>7 The importance of work design concerning with the individual's job, work motivation and developing proper behaviour in an organisation.</p>	<p>6.1 Explain the influence that process selection has on organisation. 6.2 Describe the basic processing types. 6.3 Analyse and evaluate automated approaches to processing. 6.4 Explain the need for management of technology. 6.5 Describe the main advantages and disadvantages of product layouts and process layouts. 6.6 Explain the strategic importance of process selection</p>
<p>8 The importance of location planning and analysis as one of the most critical success factors for any outlet.</p>	<p>7.1 Describe the advantages and disadvantages of specialisation 7.2 Explain the term knowledge based pay 7.3 Explain the purpose of methods analysis and describe how methods studies are performed. 7.4 Evaluate the impact of working conditions on job design. 7.5 Define a standard time. 7.6 Describe and compare time study methods and perform calculations. 7.7 Describe the basic approaches to job design and work sampling and perform calculation</p>
<p>8 The importance of location planning and analysis as one of the most critical success factors for any outlet.</p>	<p>8.1 Explain why location decisions are important. 8.2 Describe the options that are available for</p>

<p>9 Why quality is important as it makes sure products and services meet the required standard and the consequences of poor quality.</p>	<p>location decisions.</p> <p>8.3 Describe some of the major factors that affect location decisions.</p> <p>8.4 Define (i) Process Planning (ii) Process Analysis (iii) Process Innovation (iv) Technology Decisions (v) Capacity Decisions</p> <p>9.1 Define the term quality.</p> <p>9.2 Identify the determinants of quality.</p> <p>9.3 Describe the costs associated with quality.</p> <p>9.4 Describe the quality awards.</p> <p>9.5 Describe TQM.</p> <p>9.6 Describe and use various quality tools.</p> <p>9.7 Explain the elements of the quality control process.</p> <p>9.8 Explain how control charts are used to monitor a process, and the concepts that underlie their use.</p> <p>9.9 Describe how to use and interpret control charts.</p>
<p>10 Supply chain management activities to maximise customer value and achieve a sustainable competitive advantage.</p>	<p>10.1 Explain the increasing importance of outsourcing.</p> <p>10.2 Describe the objective of supply chain management.</p> <p>10.3 Identify the elements of supply chain management.</p> <p>10.4 Identify the strategic, tactical, and operations issues in supply chain management.</p> <p>10.5 Explain the value of strategic partnering.</p> <p>10.6 Describe the critical importance of information exchange across a supply chain.</p> <p>10.7 Explain the need to manage a supply chain and the potential benefits of doing so</p> <p>10.8 Outline the key steps, and potential challenges, in creating an effective supply chain</p>
<p>11 Inventory management activities in maintaining the process of efficiently overseeing the constant flow of units into and out of an existing inventory.</p>	<p>11.1 Describe the nature and importance of service inventories.</p> <p>11.2 Explain periodic and perpetual review systems.</p> <p>11.3 Describe the objectives of inventory management.</p> <p>11.4 Describe the A-B-C approach and explain how it is useful.</p> <p>11.5 Describe the basic EOQ model and its assumptions and solve typical problems.</p> <p>11.6 Describe the economic production quantity model and solve typical problems.</p> <p>11.7 Describe the quantity discount model and solve typical problems.</p> <p>11.8 Describe reorder point models and solve typical problems.</p> <p>11.9 Describe situations in which the single-period model would be appropriate, and solve typical problems.</p> <p>11.10 Define the term inventory, list the major reasons for holding inventories,</p> <p>11.11 Describe the main requirements for effective inventory management</p>

<p>12 The variables decision makers have to work with in aggregate planning and some of the possible strategies they can use.</p> <p>13 Understand Materials Required Planning (MRP) production planning and inventory control systems used to manage manufacturing processes and Enterprise Resource Planning (ERP).</p>	<p>12.1 Explain what aggregate planning is and how it is useful</p> <p>12.2 Describe some of the graphical and quantitative techniques planners use.</p> <p>12.3 Demonstrate how to prepare aggregate plans and compute their costs.</p> <p>12.4 Explain the importance of the purchasing function in business organisations.</p> <p>12.5 Describe the responsibilities of purchasing.</p> <p>12.6 Explain the term value analysis.</p> <p>13.1 Describe the conditions under which MRP is most appropriate.</p> <p>13.2 Describe the inputs, outputs, and nature of MRP processing.</p> <p>13.3 Explain the benefits and requirements of MRP.</p> <p>13.4 Describe Just In Time (JIT) strategy companies employ to increase efficiency and decrease waste by receiving goods only as they are needed</p> <p>13.5 Describe problems encountered in service systems, and the approaches used for scheduling service systems</p> <p>13.6 Describe PERT/CPM techniques</p> <p>13.7 Describe the characteristics of waiting line systems and queuing system measurement of the queue's performance; including suggestions for managing queues</p>
<p>Methods of Evaluation: A 2½-hour written examination paper with five essay questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Operations Management with a weighting of 100%.</p>	

Recommended Learning Resources: Operations Management

<p>Text Books</p>	<ul style="list-style-type: none"> • Operations Management by Nigel Slack , Stuart Chambers , Robert Johnston. ISBN-10: 140584700X • Operations Management by Jay Heizer , Barry Render. ISBN-10: 0138134545 • Operations Management by Andrew Greasley. ISBN-10: 0470012099
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>None</p>