



Australian Government

Department of Education, Employment and Workplace Relations

MSS405005A Manage competitive systems and practices responding to individual and unique customer orders

Release: 1

MSS405005A Manage competitive systems and practices responding to individual and unique customer orders

Modification History

New unit, superseding MSACMS604A Manage competitive manufacturing processes in a jobbing shop environment* - Not equivalent

* Prerequisites *MSACMS601A Analyse and map a value chain, MSACMT280A Undertake root cause analysis, MSACMT631A Undertake value analysis of product costs in terms of customer requirements* - removed

Unit Descriptor

This unit of competency covers the skills and knowledge required to prepare for and manage the introduction of competitive systems and practices processes in an organisation that does not undertake repetitive processes or mass produce products and instead responds to individual and unique customer orders.

Application of the Unit

This unit applies to the introduction of competitive systems and practices processes in an environment where the organisation or part of the organisation specialises in one-off or small batch product or operations driven by individual and unique customer orders (e.g. overhaul of equipment, jobbing manufacture, supply of customised/bespoke services or product).

This unit describes the skills needed to restructure the process and work organisation to allow the application of competitive systems and practices tools and techniques.

This unit requires the application of skills associated with problem solving, initiative, enterprise, planning and organising in order to manage competitive systems and practices processes in a jobbing shop environment. This unit also requires communication and teamwork skills to gather information about processes and implement redesign plans.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

1	Analyse the existing operations	1.1	Identify organisation capability for products and processes
		1.2	Identify the major processing steps in meeting customer order or orders
		1.3	Consult with employees, managers and other major stakeholders on major expected benefits from a move to a competitive systems and practices strategy
		1.4	Identify lead times, throughput times and waiting times throughout process of meeting a customer order
		1.5	Identify variations within the process
		1.6	Identify causes of the variations
2	Draft a virtual flow process	2.1	Consider similarities in materials, processes and services for orders
		2.2	Map flow of information, material, processes and people for each product family/cluster of similar customised products/services
		2.3	Draw a current state value stream map for the process as a virtual flow process
		2.4	Analyse the current value stream map for waste

- 2.5 Draft possible future state value stream map
- 2.6 Calculate benefits flowing from future state map
- 2.7 Consult with stakeholders to validate benefits

- 3 Prepare proposals for process redesign
 - 3.1 Identify options for the delivery of competitive systems and practices and other changes required to move to future state value stream map
 - 3.2 Plan as to how these changes might be implemented
 - 3.3 Cost the proposed changes and determine benefit/cost ratios
 - 3.4 Prepare recommendations for change
 - 3.5 Negotiate/consult with relevant stakeholders to establish the preferred option

- 4 Implement the plan
 - 4.1 Arrange for altered process, as required
 - 4.2 Arrange for altered infrastructure needs, as required
 - 4.3 Monitor the implementation of the plan, making adjustments as required
 - 4.4 Review the new value stream and check that expected benefits have been obtained
 - 4.5 Put in place a continuous improvement mechanism for the new value stream

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Required skills include:

- identifying and draw current state maps for jobs/processes
- analysing current targets for jobs (e.g. quality, time and cost) and identifying variations from targets
- analysing current processes used in the organisation, including appropriateness of strategy, operations, and internal and external relationships, including value stream members
- identifying waste
- proposing changes and determine cost/benefit of each change
- selecting and adapting appropriate competitive systems and practices tools and techniques for a jobbing environment, such as:
 - value stream mapping
 - 5S
 - Just in Time (JIT)
 - mistake proofing
 - process mapping
 - kaizen and kaizen blitz
 - setting of key performance indicators(KPIs)/metrics
 - identification and elimination of waste
- communicating at all levels in the organisation and value stream and to audiences of different levels of literacy and numeracy
- developing future state maps

Required knowledge

Required knowledge includes:

- competitive systems and practices principles and tools, including:
 - value stream mapping
 - 5S
 - JIT
 - mistake proofing
 - process mapping
 - kaizen and kaizen blitz

- setting of KPIs/metrics
- identification and elimination of waste
- establishing customer pull
- standardisation
- processes used in jobbing manufacture and other non-repetitive operations businesses
- capabilities of equipment
- methods of estimating costs/benefits
- acceptable benefit/cost ratios
- continuous improvement principles
- abilities and skills of personnel in organisation

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>A person who demonstrates competency in this unit must be able to provide evidence of their ability to:</p> <ul style="list-style-type: none"> • analyse existing operations and draft virtual flow process • determine improvements that deliver the greatest overall benefit • plan the implementation of competitive systems and practices strategy, techniques and tools • produce a current state value stream map • draft possible future state value stream map • monitor a continuous improvement strategy.
<p>Context of and specific resources for assessment</p>	<p>Assessment of performance must be undertaken in a workplace using or implementing one or more competitive systems and practices. Access may be required to:</p> <ul style="list-style-type: none"> • workplace procedures and plans relevant to work area • specifications and documentation relating to planned, currently being implemented, or implemented changes to work processes and procedures relevant to the assessee • documentation and information in relation to production, waste, overheads and hazard control/management • reports from supervisors/managers

	<ul style="list-style-type: none">• case studies and scenarios to assess responses to contingencies.
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<p>Method of assessment</p>	<p>A holistic approach should be taken to the assessment. Competence in this unit may be assessed by using a combination of the following to generate evidence:</p> <ul style="list-style-type: none"> • demonstration in the workplace • workplace projects • suitable simulation • case studies/scenarios (particularly for assessment of contingencies, improvement scenarios, and so on) • targeted questioning • reports from supervisors, peers and colleagues (third-party reports) • portfolio of evidence. <p>In all cases it is expected that practical assessment will be combined with targeted questioning to assess underpinning knowledge. Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p>
<p>Guidance information for assessment</p>	<p>Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the candidate and the work being performed.</p>

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p>Competitive systems and practices</p>	<p>Competitive systems and practices may include, but are not limited to:</p> <ul style="list-style-type: none"> • lean operations • agile operations • preventative and predictive maintenance approaches • monitoring and data gathering systems, such as Systems Control and Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Materials Resource Planning (MRP) and
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	<p>proprietary systems</p> <ul style="list-style-type: none">• statistical process control systems, including six sigma and three sigma• JIT, kanban and other pull-related operations control systems• supply, value, and demand chain monitoring and analysis• 5S• continuous improvement (kaizen)• breakthrough improvement (kaizen blitz)• cause/effect diagrams• overall equipment effectiveness (OEE)• takt time• process mapping• problem solving• run charts• standard procedures• current reality tree <p>Competitive systems and practices should be interpreted so as to take into account:</p> <ul style="list-style-type: none">• the stage of implementation of competitive systems and practices• the size of the enterprise• the work organisation, culture, regulatory environment and the industry sector
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Variations	<p>Variations are deviations from desired targets and may cover variations in:</p> <ul style="list-style-type: none"> • quality • time • cost • occupational health and safety (OHS)
Waste	<p>Waste (also known as muda in the Toyota Production System and its derivatives) is any activity which does not contribute to customer benefit or features in the product. Within operations, categories of waste include:</p> <ul style="list-style-type: none"> • excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items • activities which do not yield any benefit to the organisation or any benefit to the organisations customers
Stakeholders	<p>Stakeholders may include:</p> <ul style="list-style-type: none"> • managers • supervisors • employees • shareholders • OHS mechanisms/representatives • Industrial relations mechanisms/representatives • suppliers • customers • service providers
Infrastructure needs	<p>Infrastructure needs may include:</p> <ul style="list-style-type: none"> • physical infrastructure, including plant, equipment, tools, systems and processes • information and control infrastructure • work organisation, including numbers of employees • work structure and skills and knowledge held by employees • workforce development and, where required, training
Value stream	<p>The value stream begins with the customer and includes all actions (both value adding and non value added) by</p>

	<p>both internal sections/departments and external organisations to meet a customer requirement. Depending on the operations and the customer requirement stages where value stream actions may occur include:</p> <ul style="list-style-type: none">• sales outlet/representative• information gathering, data analysis and research• product design• raw material sourcing• intermediate processing• final assembler/ collation/preparation• support (services e.g. accounting, finance and legal)• storage and delivery to customer• after market support
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Unit Sector(s)

Unit sector

Competitive systems and practices

Custom Content Section

Not applicable.