**Chapter 2 (Basic Cost Management Concepts) Video**

Students should read the chapter, review the PowerPoint Slides, and read the instructor’s notes before watching the video. The video is an abbreviated version of the instructor’s notes.

Chapter 2 introduces the basic management vocabulary.

We will refine and expand on the vocabulary during the rest of the course.

**WHAT IS A COST?**

A **cost** is the sacrifice made, usually measured by resources given up, to achieve a particular purpose.

**Product vs. Period Costs**

* **Product costs** are the *costs of goods manufactured or the cost of goods purchased for resale*. These costs are inventoried until the goods are sold.
* **Raw materials—**materialsthat await production
* **Work in process—**partiallycompleted production
* **Finished goods—**completedproduction that awaits sale
* **Period costs** are all other non-product costs in an organization (e.g., selling and administrative), and they are not inventoried but are expensed as time passes.

**TYPES OF PRODUCTION PROCESSES**

There are **various types of production processes**; for example:

*Job shop—*low production volume, little standardization; one-of-a-kind products

*Batch—*multiple products; low volume

*Assembly line—*a few major products; higher volume

*Mass customization—*high production volume; standardized components; customized combinations of components

*Continuous flow—*high volume; highly standardized commodity products

**MANUFACTURING COSTS**

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| **NOTE:** THE UNDERSTANDING OF THE MANUFACTURING COST VOCABULARY IS AN IMPORTANT TAKE-AWAY IN THE COURSE. |

**DIRECT MATERIALS—**materials easily traced to a finished product

**DIRECT LABOR—**the wages of anyone who works directly on the product

**MANUFACTURING OVERHEAD—**all other manufacturing costs

**INDIRECT MATERIALS—**materials and supplies other than those classified as direct materials,

**INDIRECT LABOR—**personnel who do not work directly on the product (e.g., manufacturing supervisors)

**Other Manufacturing Costs--**not easily traceable to a finished good (insurance, property taxes, depreciation, utilities, and service/support department costs). *Overtime premiums and the cost of idle time are also accounted for as overhead*.

**Conversion cost** (the cost to convert direct materials into finished product): direct labor + manufacturing overhead

**Prime cost:** direct material + direct labor

***Chapter 2 is an introduction to the vocabulary. We will come back to these items in subsequent chapters to provide more detail and explanation.***

**MANUFACTURING COST FLOWS**

Manufacturing costs (direct materials, direct labor, and manufacturing overhead) are attached to work-in-process inventory.

**Cost of Goods Manufactured:**

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|  | Beginning Work-in-Process Inventory |
| + | Direct Material |
| + | Direct Labor |
| + | Manufacturing Overhead |
| - | Ending Work-in-Process Inventory |
| = | **Cost of Goods Manufactured** |

This amount is transferred from work-in-process inventory to finished-goods inventory when goods are completed.

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|  |  | ***Cost of Goods Available for Sale*** | | | | |  |
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|  |  |  | Beginning Completed Goods Inventory | | |  |  |
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|  |  |  | Cost of Goods Manufactured | | |  |  |
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|  |  |  | Cost of Goods Available for Sale | | |  |  |
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|  | Ending Completed Goods Inventory | | |  |  | Cost of Goods Sold | |

**BASIC COST MANAGEMENT CONCEPTS**

**Cost Driver**

**A Cost Driver Is Any Event or Activity That Causes Costs To Be Incurred**.

* Possible examples include labor hours in manual assembly work and machine hours in automated production settings.
* *A cost driver refers to the way that a cost changes in relation to changes in the activity*
* The higher the degree of correlation between a cost-pool increase and the increase in its cost driver, the better the cost management information.
* An **activity** refers to a measure of the organization’s output of products or services.

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| Most of the basic introductory discussion in the text (and other managerial accounting texts and trade publications) *assumes that a single factor is associated with costs in producing a unit of output*, **i.e., a single unit-level cost driver***.*  The basic model is crucial for understanding managerial accounting vocabulary and concepts.  In later chapters, we consider the cases of multiple unit-level cost drivers and of cost drivers that are not at the unit level: e.g. that are batch–level, product-level, or facility-level. |

**Variable and Fixed costs**

**Variable costs** *move in direct proportion to a change in activity*.

* The cost per unit (i.e., per seat) remains constant.

**Variable Costs** *are identical for each incremental unit of activity* (over the relevant range);

* They *change in direct proportion with a change in volume within the relevant range* of activity.

**Fixed costs** *remain constant in total as the level of activity changes within the relevant range of activity*.

* The cost per unit fluctuates because this constant total is spread over a smaller or greater volume.
* They are *unrelated to unit-level activity*;
* While fixed costs may respond to structural cost drivers and organizational cost drivers over time, they do not respond to short-run changes in unit-level activity cost drivers.

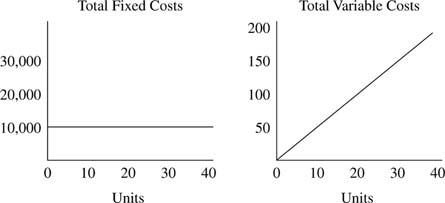
**Relevant Range**

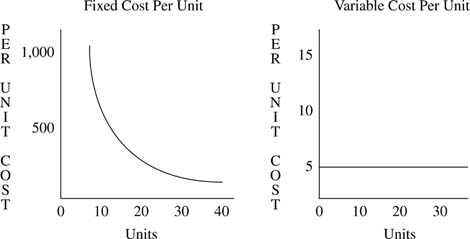
The **Relevant Range** (key vocabulary term) refers to the activity levels within which a linear cost function (or linear approximation) is valid.

* **The range of activities within which a given total fixed cost or unit variable cost will be unchanged**. *Relevant Range* is discussed in Chapter 6. See the following descriptions/definitions.

<http://www.finance-lib.com/financial-term-relevant-range.html>, and <http://blog.accountingcoach.com/relevant-range-activity/>

**Graphs**





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| **Understanding the concepts of fixed and variable costs are crucial take-ways from this course.**  In Chapter 6, we introduce step-fixed costs, step-variable costs, and *semivariable* costs. |

**IN THIS COURSE, *WE ASSUME THAT THE VARIABLE COST FUNCTION IS LINEAR WITHIN A RELEVANT RANGE*.**

* Of course, the cost function might be curvilinear (discussed in Chapter 6).
* ***The simplifying assumption of a linear cost function within a relevant range helps make the analysis in the course relative straight-forward*.**

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| Many Kelley students have engineering, logistics, or economics backgrounds and realize that many cost functions are not linear.  ***Examination of non-linear cost functions is beyond the scope of this course.*** |

**Direct and Indirect Costs**

An entity (e.g., a specific product, service, or department) to which a cost is assigned is commonly known as a **cost object.**

A **direct cost** is one that can be easily traced to a cost object.

* Direct materials
* Direct labor

An **indirect cost** is a cost that cannot be easily traced to a cost object.

* Manufacturing overhead
* Non-manufacturing costs are organizational costs that are indirect costs and not classified as manufacturing costs.

**Controllable and Uncontrollable Costs**

**Controllable costs—**costs over which a manager has influence (e.g., direct materials)

**Uncontrollable costs—**costsover which a manager has no influence (e.g., the salary of a firm's CEO from the production manager's viewpoint)

**COSTS AND DECISION MAKING VOCABULARY**

The following cost concepts are relevant in manufacturing entities as well as for service providers.

**Opportunity cost—**thebenefit forgone by choosing an alternative course of action.

**Out-of-pocket cost—**a costthat requires a cash outlay

**Sunk cost—**a cost incurred in the past that cannot be changed by future action.

* Such costs are not relevant for decision making (discussed extensively in Chapter 14)

**Differential cost—**the net difference in cost between two alternative courses of action

**Incremental cost—**the increase in cost from one alternative to another

**Marginal cost—**theextra cost incurred when one additional unit is produced

**Average cost—**total cost divided by the units of activity