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# **COST ACCOUNTING**

Academic Year: 2019/2020

2<sup>nd</sup> semester

Level of curricular unit:

Undergraduate

(1<sup>st</sup> cycle, as defined in the Framework of Qualifications for the European Higher Education Area)

Instructors: Ricardo Ferreira Reis (theory), Jorge Carvalheiro, Catarina Moura, Sofia Pereira

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Office hours for each instructor can be requested through email. We created a general gmail account for this course. <u>cacctg.catolica.2020@gmail.com</u> Please use this in all interactions with the instructors, by clearly identifying *in the subject line*:

- your name,
- student ID number and
- your practical sessions' instructor (Jorge Carvalheiro Catarina Moura Sofia Pereira).

# Course objective:

The objective of this course is to provide the fundamentals in costing. The best way to understand what we are dealing with here is to consider the distance between the prices charged on the market and cost of delivering products and services. The higher this distance, the more profitable will a company be. While the price is determined by the demand forces on the market, the cost is determined by the supply side on the company's internal conditions. Costing is the technique that provides the companies with a clear understanding of what can be done to measure and increase the distance between price and cost.

# Contents and Learning Objectives:

- 1. Introductory concepts
  - 1.1. The accountant's role in the organization
    - 1.1.1. Distinguish financial accounting from management accounting.
    - 1.1.2. Understand how management accountants affect strategic decisions.
    - 1.1.3. Describe the set of business functions in the value chain and identify the dimensions of performance that customers are expecting of companies.
    - 1.1.4. Explain the five-step decision-making process and its role in management accounting.
    - 1.1.5. Describe three guidelines management accountants follow in supporting managers.
    - 1.1.6. Understand how management accounting fits into an organization's structure.
    - 1.1.7. Understand what professional ethics mean to management accountants.
  - 1.2. Cost-volume-profit analysis
    - 1.2.1. Explain the features of cost-volume-profit (CVP) analysis.
    - 1.2.2. Determine the breakeven point and output level needed to achieve a target operating income.
    - 1.2.3. Understand how income taxes affect CVP analysis.
    - 1.2.4. Explain how managers use CVP analysis in decision making.
    - 1.2.5. Explain how managers use sensitivity analysis to cope with uncertainty.





- 1.2.6. Use CVP analysis to plan variable and fixed costs.
- 1.2.7. Apply CVP analysis to a company producing multiple products.
- 1.3. Determining how costs behave
  - 1.3.1. Basic assumptions and examples of cost functions.
  - 1.3.2. Identifying cost drivers.
  - 1.3.3. Cost estimation methods.
  - 1.3.4. Steps in estimating a cost function using quantitative analysis.
  - 1.3.5. High-low method.
  - 1.3.6. Regression analysis method.
  - 1.3.7. Evaluating cost drivers of the estimated cost function.
- 2. Inventory costing and management
  - 2.1. Inventory costing and capacity analysis
    - 2.1.1. Identify what distinguishes variable costing from absorption costing.
    - 2.1.2. Compute income under absorption costing and variable costing, and explain the difference in income.
    - 2.1.3. Understand how absorption costing can provide undesirable incentives for managers to build up inventory.
    - 2.1.4. Differentiate throughput costing from variable costing and absorption costing.
    - 2.1.5. Describe the various capacity concepts that can be used in absorption costing.
    - 2.1.6. Examine the key factors in choosing a capacity level to compute the budgeted fixed manufacturing cost rate.
    - 2.1.7. Understand other issues that play an important role in capacity planning and control
  - 2.2. Inventory management, Just-in-time, and simplified costing methods
    - 2.2.1. Inventory management in retail organizations.
    - 2.2.2. Estimating inventory-related relevant costs and their effects.
    - 2.2.3. Just-in-time purchasing.
    - 2.2.4. Inventory management, MRP and JIT production

#### 3. Allocating overhead

- 3.1. Job-costing
  - 3.1.1. Describe the building-block concepts of costing systems.
  - 3.1.2. Distinguish job costing from process costing.
  - 3.1.3. Describe the approaches to evaluating and implementing job-costing systems.
  - 3.1.4. Outline the seven-step approach to normal costing.
  - 3.1.5. Distinguish actual costing from normal costing.
  - 3.1.6. Track the flow of costs in a job-costing system.
  - 3.1.7. Dispose of under- or over-allocated manufacturing overhead costs at the end of the fiscal year using alternative methods.
  - 3.1.8. Apply variations from normal costing.
- 3.2. Activity-based costing and activity-based management
  - 3.2.1. Explain how broad averaging undercosts and overcosts products or services.
  - 3.2.2. Present three guidelines for refining a costing system.
  - 3.2.3. Distinguish between simple and activity-based costing systems.
  - 3.2.4. Describe a four-part cost hierarchy.
  - 3.2.5. Cost products or services using activity-based costing.
  - 3.2.6. Evaluate the costs and benefits of implementing activity-based costing systems.
  - 3.2.7. Explain how activity-based costing systems are used in activity-based management.
  - 3.2.8. Compare activity-based costing systems and department costing systems

### 4. Aggregating costs through production

- 4.1. Process costing
  - 4.1.1. Identify the situations in which process-costing systems are appropriate.
  - 4.1.2. Understand the basic concepts of process costing and compute average unit costs.
  - 4.1.3. Describe the five steps in process costing and calculate equivalent units.
  - 4.1.4. Use the weighted average method and first-in, first-out (FIFO) method of process costing.
  - 4.1.5. Apply process-costing methods to situations with transferred-in costs.
  - 4.1.6. Understand the need for hybrid-costing systems such as operation costing.

### 4.2. Spoilage, rework and scrap

- 4.2.1. Distinguish among different types of spoilage, rework, and scrap.
- 4.2.2. Identify the differences between normal and abnormal spoilage.
- 4.2.3. Account for spoilage in process costing using the weighted-average method and the first-in, first-out (FIFO) method.
- 4.2.4. Account for spoilage at various stages of completion in process costing.
- 4.2.5. Account for spoilage in job costing.
- 4.2.6. Account for rework in job costing.
- 4.2.7. Account for scrap.

## 5. Additional issues arising in production

- 5.1. Allocation of support-department costs, common costs and revenues
  - 5.1.1. Distinguish between the single-rate method from the dual-rate method.
  - 5.1.2. Understand how divisional incentives are affected by the choice between allocation based on budgeted and actual rates and budgeted and actual usage.
  - 5.1.3. Allocate multiple support-department costs using the direct method, the step-down method, and the reciprocal method.
  - 5.1.4. Allocate common costs using the stand-alone method and the incremental method.
  - 5.1.5. Explain the importance of explicit agreement between contracting parties when the reimbursement amount is based on costs incurred.
  - 5.1.6. Understand how bundling of products gives rise to revenue-allocation issues and the methods for doing so.
- 5.2. Cost Allocation: joint products and by products
  - 5.2.1. Identify the splitoff point in a joint-cost situation and distinguish joint products from byproducts.
  - 5.2.2. Explain why joint costs are allocated to individual products.
  - 5.2.3. Allocate joint costs using four methods.
  - 5.2.4. Explain why the sales-value at splitoff method is preferred when allocating joint costs.
  - 5.2.5. Explain why joint costs are irrelevant in a sell-or-process-further decision.
  - 5.2.6. Account for byproducts using two methods.

<u>Assessment:</u>

Midterm:	35%
Endterm:	50%
Comprehensive team project:	15%
THE PROJECT IS MANDATORY	

• Following University's guidelines, attendance to the tests is mandatory, any undocumented absence will lead to a ZERO grade in the test.

• Students having an average grade below 8 out of 20 are excluded from the final exam.

• Students having an average grade above 10 out of 20 waive the final exam, but they can register, following usual procedures, for grade improvement. Grade improvement does not compromise passing situation, but may imply a drop in grade limited by 10.

<u>Reading</u>: The MANDATORY MANUAL for this course is:

#### Cost Accounting: Global Edition – 16th edition

By Charles Horngren, Srikant M. Datar, Madhav Rajan - Pearson Education

You can acquire the global paper edition from the University's bookstore. Additional editions should be available from the University's library. It is highly recommended that you keep the electronic code available with the book. Alternatively, you can simply acquire only this code which should give you access to the e-book.

All other materials will be posted on the usual school's website devoted to the course (moodle).

## Code of conduct and ethics:

Católica Lisbon School of Business and Economics is a community of individuals with diverse backgrounds and interests who share certain fundamental goals. A crucial element to achieve these goals is the creation and maintenance of an atmosphere contributing to learning and personal growth for everyone in the community. The success of CATÓLICA-LISBON in attaining its goals and in maintaining its reputation of academic excellence depends on the willingness of its members, both collectively and individually, to meet their responsibilities.

Along with all the other members of our community, students are expected to follow professional standards and CATÓLICA-LISBON standards of Academic Integrity. Some details should be mentioned here: Please arrive on time for class with uninterrupted attendance for the duration of the class. Signing attendance sheet for anyone else in the class constitutes fraud and a violation of the CLSBE code of conduct. Use of computers and other electronic devices during the class is not allowed, unless expressly requested by the instructor of the course. Students who persistently act in a disruptive and disrespectful manner during the class session may be invited to leave.

Students are expected to behave at all times according to the fundamental principles of academic integrity, including honesty, trust, fairness, respect, and responsibility. In particular,

a) In **individual graded assignments** of any type, students may not collaborate with others or use any materials without explicit permission from the instructor of the course;

b) In **group assignments and reports**, all students listed as authors shoud have performed a substantial amount of work for that assignment;

c) It is dishonest to fabricate or falsify data in experiments, surveys, papers, reports or other circumstances; fabricate source material in a bibliography or "works cited" list; or provide false information in other documents in connection with academic efforts;

d) **Plagiarizing**, i.e. "to steal and pass off the ideas or words of another as one's own and or to use another's production without crediting the source" (Merrian-Webster Dictionary) is an Academic Integrity breach. It can be avoided by using proper methods of documentation and acknowledgement. Visit this guide for additional resources on how to avoid plagiarism in your written submissions <u>http://en.writecheck.com/plagiarism-guide</u>

e) In **exams** students must not receive or provide any unauthorized assistance. During an examination, students may use only material and items authorized by the faculty. Use of smartwatches or other communication devices is not permitted during the exam.

Academic integrity breaches will be dealt with in accordance with the <u>school's code of Academic Integrity</u>: <u>https://www.clsbe.lisboa.ucp.pt/system/files/assets/files/academicintegritycode.pdf</u>