Istituto d'Istruzione Superiore Tassara - Ghislandi

Progetto ERASMUS+ KA1

UNITA' DI APPRENDIMENTO CLIL

Disciplina: Economia aziendale

<table>
<tr><th colspan="3">SCHEDA DI PROGETTAZIONE</th></tr>
<tr><td>Denominazione</td><td colspan="2">Break-even analysis</td></tr>
<tr><td>Docenti coinvolti</td><td colspan="2">Prof.ssa Bendotti Giulia (Economia aziendale)
Prof.ssa Tonsi Laura (Economia aziendale)
Prof.ssa Ghirardelli Michela (Inglese)</td></tr>
<tr><td>Obiettivi</td><td colspan="2">Obiettivi disciplinari:
• Essere in grado di conoscere, individuare ed utilizzare lo strumento della break-even analysis.
• Costruire il grafico della break even-analysis e applicare la formula per la determinazione del BEP (Break-Even Point)
Obiettivi L2:
• Apprendere lessico specifico d'ambito economico.
• Saper leggere articoli inerenti all'argomento trattato sintetizzandoli in un linguaggio semplice, ma formalmente corretto, evidenziando i punti nodali del discorso.
• Saper elaborare, in modo semplice ma corretto, dalle informazioni acquisite opportune strategie per il management aziendale in merito a scelte operative inerenti all'analisi di costi.
• Saper utilizzare la formula del BEP con l'utilizzo di un foglio di calcolo elettronico</td></tr>
<tr><td colspan="2">Abilità</td><td>Conoscenze</td></tr>
<tr><td colspan="2">• Individuare e applicare in contesti adeguati gli strumenti di supporto alla programmazione relativi all'analisi di costi</td><td>• Gli strumenti e le caratteristiche della break-even analysis</td></tr>
<tr><td>Utenti destinatari</td><td colspan="2">Studenti della classe 5 indirizzo Tecnico Turistico</td></tr>
<tr><td>Prerequisiti</td><td colspan="2">Economia aziendale:
• Conoscenza della rappresentazione grafica sul piano cartesiano delle tipologie di costi
• Conoscenza della classificazione di costi (costi variabili e costi fissi)
• Conoscenza del processo di determinazione del risultato economico d'esercizio
• Conoscenza dei concetti di: ricavo, costo, utile e perdita
Inglese:
• Gli studenti possiedono una competenza linguistica intermedia tra il livello B1 e il B2 del QCER</td></tr>
</table>

SCHEDA DI PROGETTAZIONE	
Fase di applicazione	• Fase 1: Getting in tune with the topic (1 h) - vocabulary 1A - 1B • Fase 2: Break-even analysis - theory and formulae (2 h) 2A - 2B • Fase 3: Break-even chart (2h) 3A - 3B • Fase 4: Laboratory activities (1 h) 4A - 4B - 4C - 4D • Fase 5: Summary (30 mins.) • Fase 6: Self Assessment (30 mins.)
Tempi	7 ore
Metodologia	• Individual work. • Pair work. • Active learning. • Problem solving. • Laboratory activities (ICT lab)
Strumenti	• Ambienti di apprendimento: Laboratorio di informatica - Aula con LIM • Materiali didattizzati dai docenti • Materiali autentici raccolti e selezionati dal docente • Riferimenti bibliografici: - http://www.accountingcoach.com/break-even-point/explanation/1 - http://www.accountingtools.com/margin-of-safety - http://businessdevelopmentadvice.com/blog/how-to-reduce-the-break-even-point-of-a- - business/ http://www.accountingformanagement.org/break-even-analysis-with-multiple-products - https://www.youtube.com/watch?v=XhbBZC77DSw - https://www.youtube.com/watch?v=OyEcQ_mQOlE - https://www.investopedia.com
Prodotto	• Creazione di un glossario in L2 • Costruzione del grafico della break-even analysis • Realizzazione di un foglio di calcolo per la determinazione del BEP
Valutazione	Schede di autovalutazione/riflessione studente

Materiale e Fasi di Lavoro

FASE 1 - GETTING IN TUNE WITH THE TOPIC

1A) What is the meaning of the words listed below?

Use your smartphone to look them up and write the definition in your notebook.

1. revenue;
2. fixed cost;
3. variable cost;
4. total cost;
5. total revenue;
6. profit area;
7. loss area;
8. contribution margin;
9. Cartesian Chart

1B) Work in pairs and guess the right expression.

Student A describes the words below with the use of synonyms or definitions.

Student B guesses the words.

1- Maximun capacity
2- Overhead costs
3- Contribution per unit

FASE 2 – BREAK-EVEN THEORY AND FORMULAE

2A) Read the passage carefully, then answer the question completing the sentences with the missing information.

Colin is the accountant in charge of Company A, which sells water bottles. He previously determined that the fixed costs of Company A consist of property taxes, a lease, and executive salaries, which add up to $100,000. The variable cost of producing one water bottle is $2 per unit. The water bottle is sold at a premium price of $12. To determine the break-even point of Company A's premium water bottle you use this formula:

Break-even quantity (BEP)= $100,000 / ($12 – $2) = 10,000

Therefore, given the fixed costs, variable costs, and selling price of the water bottles, Company A would need to sell 10,000 units of water bottles to break even.

How do you find the formula of the BEP?

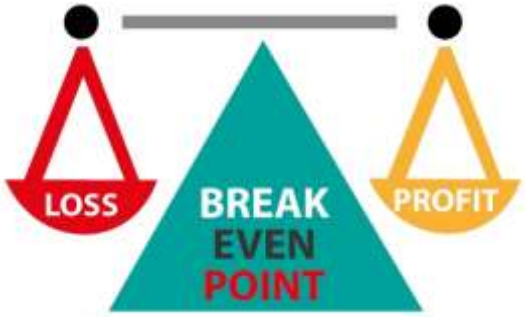
Fixed costs=……

Variable cost per unit=……..

Price=……..

2B) What is the formula of the BEP?

Watch the video at this link https://www.youtube.com/watch?v=XhbBZC77DSw to find it out. Then complete the formula below.



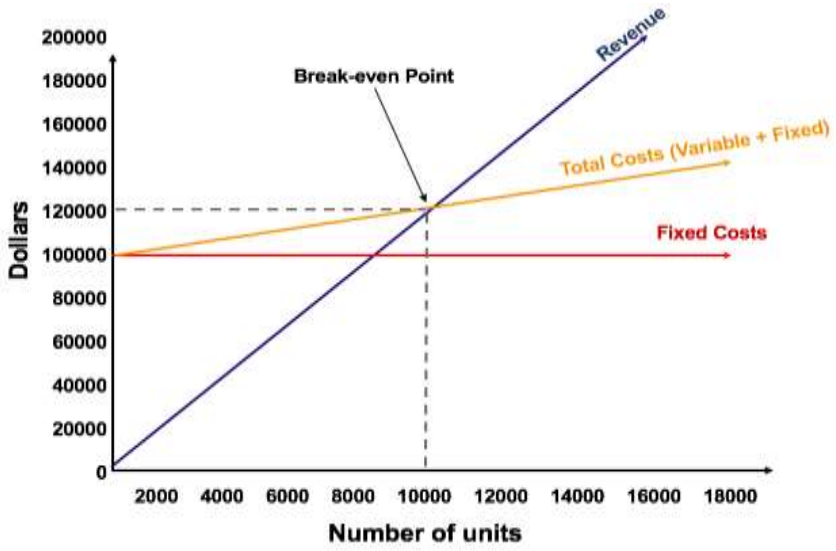
BEP= …… / (…….. - ……)

Share your solution with your classmates, then check you have written the formula as below:

$$BEP = \frac{CF}{P - CVu}$$

FASE 3 – BREAK-EVEN CHART

3A) Look at the break-even chart below, then watch the video at this link https://www.youtube.com/watch?v=OyEcQ_mQOlE to learn how to draw it.



3B) You joined a meeting with a management team that made decisions concerning the costs analysis. Work in pairs and role play a dialogue to draw the break-even chart about what it was decided at the meeting. Follow the instructions below:

Student A: give instructions to student B to draw the break-even chart

Student B: ask questions to draw the break-even chart

The teacher provides the following explanation of the break-even chart to students with some difficulties to help them with the exercise.

1. The number of units is on the X-axis (horizontal) and the dollar amount is on the Y-axis (vertical).
2. The red line represents the total fixed costs of……..
3. The blue line represents revenue per unit sold. For example, selling …….. units would generate …….. x….. = …… in revenue.
4. The yellow line represents total costs (fixed and variable costs). For example, if the company sells …… units, then the company would incur ……. in variable costs but…… in fixed costs for total costs of …….. If the company sells ……. units, the company would incur…….. x …… = ……. in variable costs and……. in fixed costs for total costs of ……..
5. The break even point is at …… units. At this point, revenue would be …… x…. = …… and costs would be …….. x …. = ……. in variable costs and ……. in fixed costs.
6. When the number of units exceeds ……., the company would be making a profit on the units sold. Note that the blue revenue line is greater than the yellow total costs line after …….. units are produced. Likewise, if the number of units is below ……., the company would be incurring a loss. From ……. units, the total costs line is above the revenue line.

FASE 4 - LABORATORY ACTIVITIES

4A) Read the text below and identify the total cost and the total revenue equations. Then put the information in an Excel sheet.

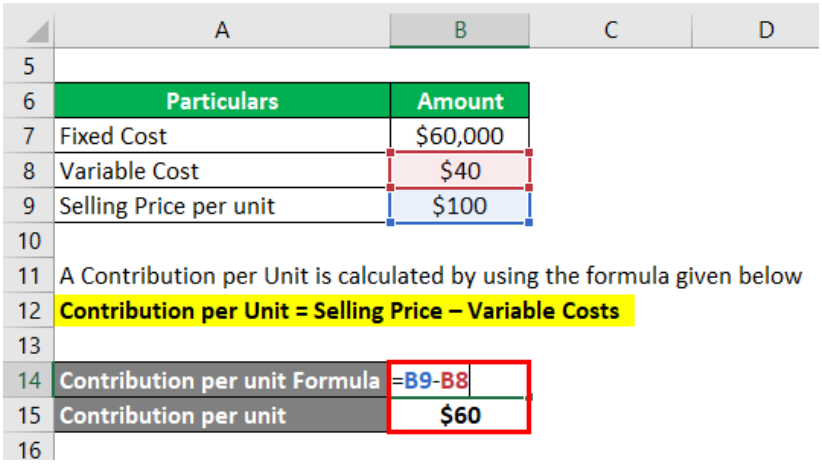
Franco Co-operation makes iron benches and wants to determine the break-even point. The total fixed cost for his business is $60,000 and the variable cost is $40 per bench. The company sells the bench for $ 100 per unit.

	A	B
5		
6	**Particulars**	**Amount**
7	Fixed Cost	$60,000
8	Variable Cost	$40
9	Selling Price per unit	$100
10		

4B) Read the text again, then find the contribution margin per unit using the Excel sheet.

Remember the formula:

Contribution per Unit = Selling Price – Variable Costs



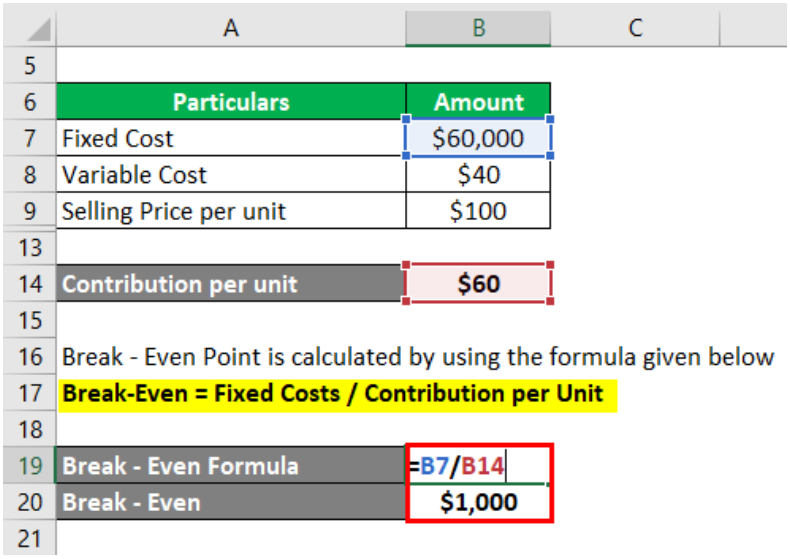
	A	B	C	D
5				
6	**Particulars**	**Amount**		
7	Fixed Cost	$60,000		
8	Variable Cost	$40		
9	Selling Price per unit	$100		
10				
11	A Contribution per Unit is calculated by using the formula given below			
12	**Contribution per Unit = Selling Price – Variable Costs**			
13				
14	**Contribution per unit Formula**	=B9-B8		
15	**Contribution per unit**	**$60**		
16				

- Contribution per unit = $100 – $40
- Contribution per unit = **$60**

4C) Using the data in your Excel sheet calculate the number of benches Franco Co-operation needs to achieve the break-even.

Remember the formula:

Break-Even = Fixed Costs / Contribution per Unit



	A	B	C
5			
6	**Particulars**	**Amount**	
7	Fixed Cost	$60,000	
8	Variable Cost	$40	
9	Selling Price per unit	$100	
13			
14	**Contribution per unit**	**$60**	
15			
16	Break - Even Point is calculated by using the formula given below		
17	**Break-Even = Fixed Costs / Contribution per Unit**		
18			
19	**Break - Even Formula**	=B7/B14	
20	**Break - Even**	**$1,000**	
21			

4D) In pairs write a situation similar to Franco's company. Then use an Excel sheet to find the BEP.

FASE 5 - SUMMARY

5A) In pairs complete the following text with the words provided.

BEP – costs – units – revenue – safety – production – level – variable – profit - fixed

How the Break-Even Analysis Works

The break-even analysis is useful in determining the …….(1) of production or a targeted desired sales mix. The study is for a company's management's use only, as the metric and calculations are not used by external parties, such as investors, regulators, or financial institutions. This type of analysis involves a calculation of the ……(2) The break-even point is calculated by dividing the total ……..(3) costs of production by the price per individual unit less the …….(4) costs of production. Fixed costs are costs that remain the same regardless of how many units are sold.

The break-even analysis looks at the level of fixed costs relative to the …….(5) earned by each additional unit produced and sold. In general, a company with lower fixed ……(6) will have a lower break-even point of sale. For example, a company with $0 of fixed costs will automatically have broken even upon the sale of the first product assuming variable costs do not exceed sales ……..(7).

KEY TAKEAWAYS:

- The break-even analysis tells you how many ……..(8) of a product must be sold to cover the fixed and variable costs of ……..(9).
- The break-even point is considered a measure of the margin of ……..(10).

FASE 6 – SELF ASSESSMENT

At the end of the teaching unit answer these questions.

1. What have you learnt through this unit?

2. I have done my best in
   - doing activities
   - communicating
   - in social relationships

3. I have to improve:
   - the way I work
   - the use of the English language
   - interpersonal relationships

4. How can you improve…
   - the way you work?
   - the use of the English language?
   - your social relationship?