



Wollo University
Kombolcha Institute of Technology
School of Mechanical and Chemical Engineering
Department of Industrial Engineering

Course: Entrepreneurship for Engineers
Chapter four

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4. Assessing The Feasibility of a New Venture

4.1 Assessment and Evaluation of Entrepreneurial opportunities



4.1 Assessment and Evaluation of Entrepreneurial opportunities

- ✓ *Involves tools such as SWOT Analysis which used to assess the strength, weakness, opportunities and threats of the startup business.*
- ✓ **Note:** *Weakness(which is stoppable) and threats are negative factors to the business while strength and opportunities are positively related to the development of the business if utilized properly.*
- ✓ **Strengths and weakness** *are internal i.e. within the control of the entrepreneur or potential entrepreneur .*

4.1 Assessment and Evaluation of Entrepreneurial opportunities

a) *Strengths:*

- ❖ *are factors that the company/ entrepreneur holds expertise in and contributed to continue success of the organization. factors assist gaining the organizational mission.(eg. having relevant education , hard and soft skills, experience, ownership of a certain network , social capital, money, land, technology, location).*
- ❖ *should be carefully identified and capitalized to be used to start or run a business. Hence weakness can be avoided and strength could be kept and grow. The lack such kind of personal strength is weakness.*

4.1 Assessment and Evaluation of Entrepreneurial opportunities

b) Weakness

- ❖ *Factors that prevent the organization from meeting its mission and achieve full potential. They hamper organizational success and growth. Eg. lack relevant personal strength such as skills is weakness.*
- ❖ *should be identified to take measures for improved or change through personal entrepreneurial effort and commitment. It can be avoided. Hence weakness can be avoided and strength could be kept and grow.*

4.1 Assessment and Evaluation of Entrepreneurial opportunities

Opportunity and threats: are external that they are outside the control of the entrepreneur.

C) Opportunities:

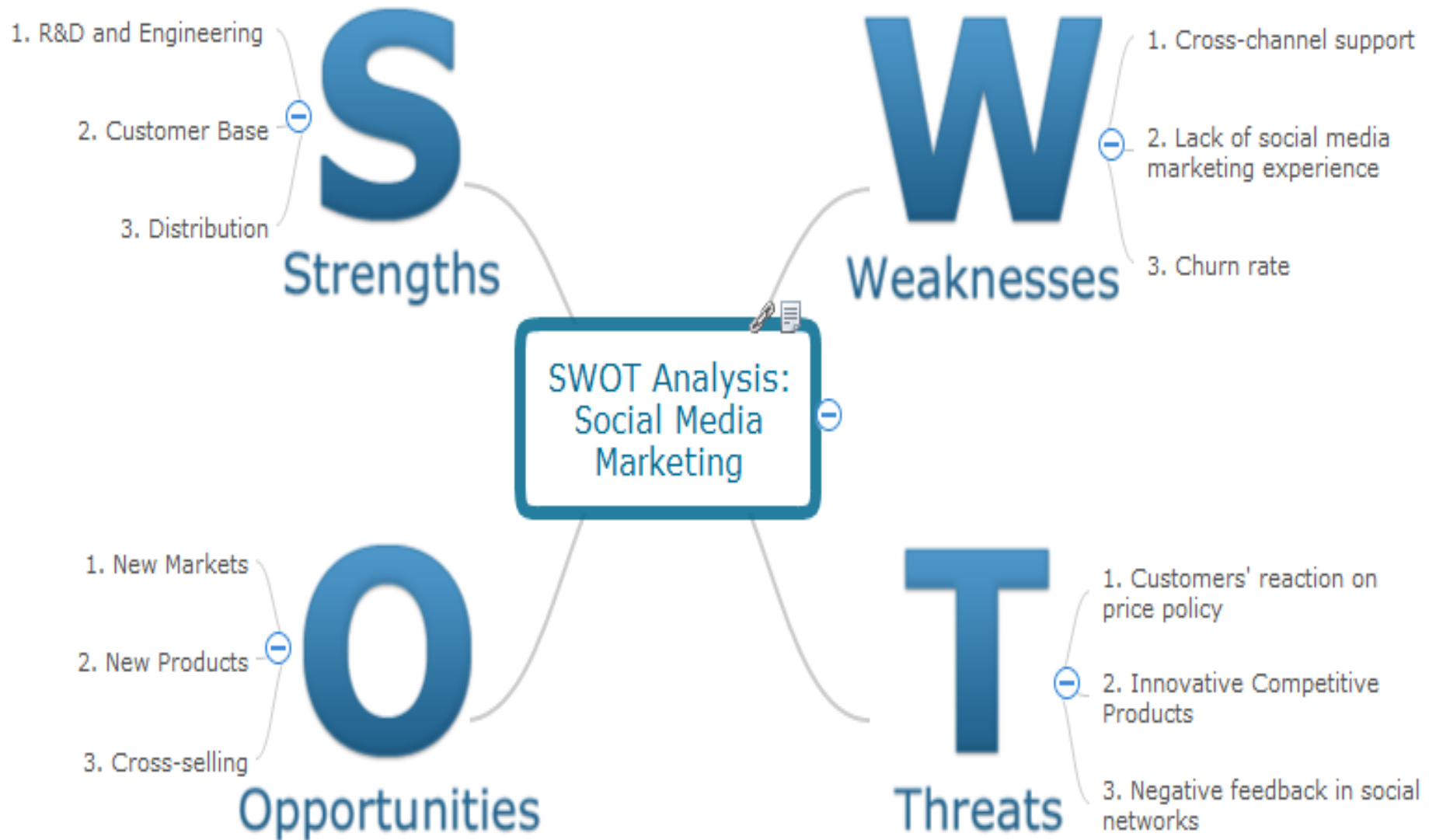
- ✓ The environment within which our organization operates offers opportunities. such opportunities can be identified and enjoyed by planning and executing required strategies.
- ✓ are external to the entrepreneur. This includes policies opportunities such as availability of support schemes from different agencies, research and development centers , universities , colleges, micro financing banks, incubation centers. An Entrepreneur or a potential startup should identify all the opportunities associated with his /her business and plan to make use of them appropriately.

4.1 Assessment and Evaluation of Entrepreneurial opportunities

d) Threats :

- ❖ *Are factors existing in the external environment that jeopardize profitability and reliability of the business. They uncontrollable and prove to be risk to the survival and stability of the entrepreneurial effort(company). the entrepreneur have no power of control threats. Hence, threats are not avoidable.*
- ❖ *Example change of government policy due to change in the political situation. What if government focus is changed ?
Change in demand?*

Example : SWOT Analysis



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4.2 Structuring the New venture, legal Structures and Issues

The process of formation of an enterprise involves certain steps including:

1. *Registration as job seeker in the local one stop service facilitation center.*
2. *Skill Training related to the business idea: soft & hard skill training available*
3. *for free in the technical, vocational training and education system.*
4. *certificate of competence in a the skills he/she is trained.*
5. *Selection of business idea and screening of the best profitable business*

Source: One stop service center directive, 2010

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4.2 Structuring the New venture, legal Structures and Issues

The process of formation of an enterprise involves certain steps including:

6. *Registration and licensing of the new business (individual or group enterprise).*
7. *Preparation of mini business plan.*
8. *Application for working premises when required.*
9. *Application for loan when required.*
10. *Starting the small business.*

Source: One stop service center directive, 2010

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4.3 Sources and Types of Capital

There are five ways to finance (capitalize) a start up

- 1. ones own saving*
- 2. Selling shares*
- 3. Accepting loans or Collecting fees from members*
- 4. Borrowing from other sources (Venture Capital, financial institutions, credit unions, friends, family)*

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4.4 Enterprise Marketing

- ❑ Definition of marketing
- ✓ all the activities involved in the **transfer** of goods from the **producer** to the **consumer**

4.4.1 Market Segmentation

- ✓ For a new venture, it's very essential to define clearly the specific group of potential customers whose needs the enterprise aims to fulfill.
- ✓ Segmentation Variables
 - Demographic – relating to the study of changes that occur in large groups of people over a period of time
 - Geographic – related to location/ characteristic of a particular region
 - Psychographic – statistics classifying population according to psychological variables such as attitudes, values, or fears and so on
 - Behavioral – the way a person or an animal acts or behaves

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4.4.2 Marketing Strategy

- ✓ Marketing strategy is defined by David Aaker as "a process that can allow an organization to concentrate its resources on the optimal opportunities with the goals of increasing sales and achieving a sustainable competitive advantage."
- ✓ Focus of Marketing Strategy
 - Identify new markets that you can successfully target
 - Making sure that your products and services meet customers needs and developing long-term and profitable relationships with those customers.
 - Communicate the benefits of your business offerings to your target market

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4.5 Marketing mix

- ✓ According to W. J. Stanton, *"Marketing mix is the term used to describe the combination of the four inputs which constitute the core of a company's marketing system: the product, the price structure, the promotional activities, and the distribution system."*



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4.5.1 Products/Service

- ✓ The product element of the marketing mix is essentially concerned with the customers' perceptions and expectations of the goods or services.
- Describe in detail your product or service
- Describe products or service features
- Explain the core benefits
- Clarify your point of difference
- Unique Selling Proposition (USP)

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4.5.1.1 Brand

- ✓ A brand is a design, name, symbol, term or word that distinguishes and identifies a company and/or products or services
- ✓ A “sum total” of all of the experiences, impressions, and knowledge customers have about your product, service, or organization



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4.5.1.2 Brand Elements



Brand
names

URLs

Slogans

Elements

Logos

Characters

Symbols



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4.5.1.3 The Role of Brands



Identify the maker

Simplify product handling

Organize accounting

Offer legal protection

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4.5.1.3 The Role of Brands



Signify quality

Create barriers to entry

Serve as a competitive advantage

Secure price premium

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4.5.1.4 Qualities of a good brand

- ☐ Memorable
- ☐ Meaningful
- ☐ Likeability
- ☐ Transferable
- ☐ Adaptable
- ☐ Protectable

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4.5.2 Pricing Mechanisms

- ***How Much do we charge?***
- ***A good pricing model recognizes the following***
 - ***Market type***
 - ***Manufacturing costs***
 - ***Value the product delivers***
 - ***Market Beliefs,***
 - ***Competitive Prices***
 - ***How much the market will bear***

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4.5.2.1 Popular Pricing Models For Startups

❑ Value Pricing:

- *Based on the value delivered by the product rather than the cost itself*

❑ Competitive Pricing/Fair Market Pricing/

- *Positioning products against others in its competitive set, typically in existing markets*

❑ Volume Pricing

- *Designed to encourage multiple purchases or users. This approach doesn't typically to consumer products and services.*

❑ Cost Based Model

- *Traditional model in which price is set two to five times the product cost. Skip it where there are many competitors.*

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4.5.2.1 Popular Pricing Models For Startups

❑ **Portfolio Pricing**

- *This model is relevant only if you have multiple products and services, each with different cost and utility.*

❑ **The “Razor/Razor Blade” Model**

- *Part of the product is free or inexpensive; yet it pulls through repeat, high profitable purchases on an ongoing basis.*

❑ **Subscription** – an agreement that you make with a company to get a publication or service regularly and that you usually pay for in advance

❑ **Leasing**

- *Lowers the entry cost for customers. Provides constant earnings over a period of years*

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4.5.3 Promotion strategy

- How companies inform, educate, persuade and remind consumers of their product benefits.

❖ Approaches

- **Conventional media**
 - print, radio
 - online,
 - television
- **Very specific & Focused on target customer**
 - sales promotions
 - public relations
 - personal selling
 - direct marketing

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4.5.3 Promotion strategy

Advertising aims to:

- Make business and product name familiar to the public
- Create goodwill and build a favorable image
- Educate and inform the public
- Offer specific products or services
- Attract customers to find out more about your product or service

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4.5.3.1 Rules on Advertising

- **Target** - Who is the target? For example, is it male, female, adult, teenager, child, mother, father etc.
- **Media** – Bearing the aim and target in mind, which are of the media available is the most suitable – i.e. TV, radio, press or Internet?
- **Competitors** – What are the competitors doing? Which media channel do they use? Are they successful? Can you improve on their approach and beat them in competition?

4. Assessing The Feasibility of a New Venture

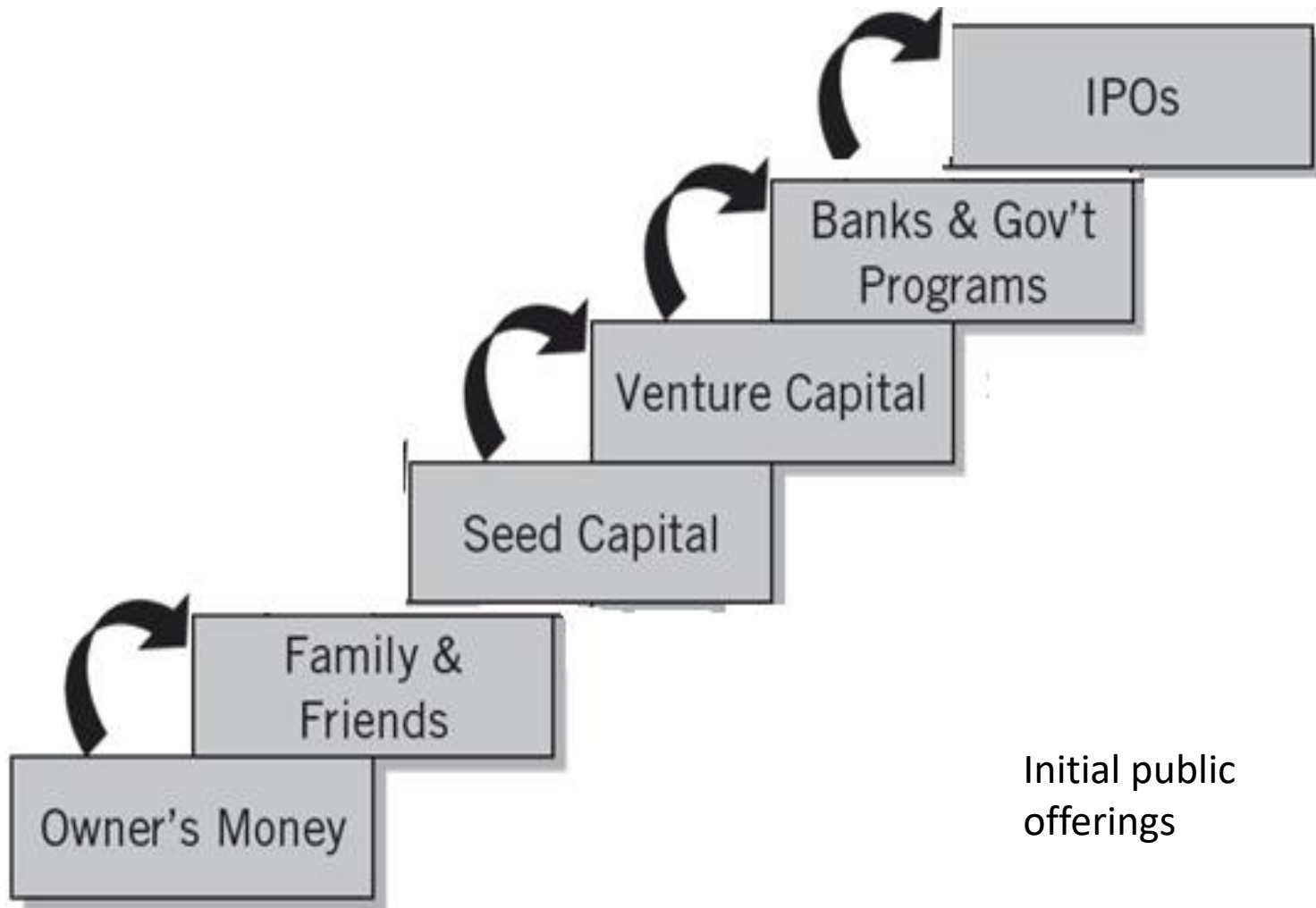
4.5.4 Place

- Concerned with making products available when and where customers want them Includes physical distribution of goods.



4.6 Financial Management of start-up ventures

Who Is Funding Entrepreneurial Start-Up Companies?

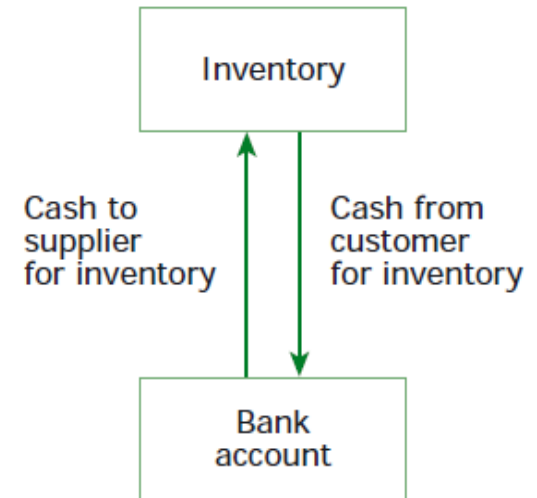


4.7.1 The master budget

- Summary of all individual functional budgets into one budget, consisting of:
- The **income statement** budget includes all revenues and costs, and indicates the planned level of profit
- The **balance sheet** budget predicts what the published balance sheet will look like at the end of the period
- The **cash budget** reduces all the activities of the company to cash flows, usually broken down into monthly or even weekly periods

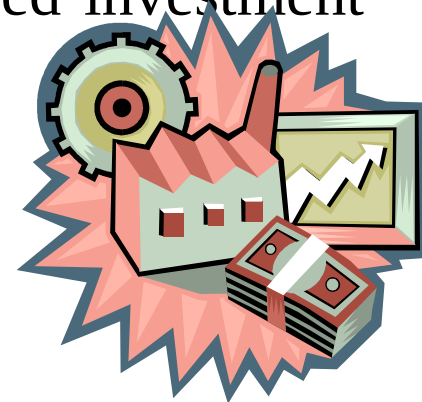
Cash flow forecast

- Vital tool for any business
- Simple principle
 - Cash at start of period
 - Add receipts during period
 - Deduct expenses during period
 - Cash at the end of the period
 - Becomes cash at the start of the next period



Debt Versus Equity Financing

- Debt Financing
 - Secured financing of a new venture that involves a payback of the funds plus a fee (interest for the use of the money).
- Equity Financing
 - Involves the sale (exchange) of some of the ownership interest in the venture in return for an unsecured investment in the firm.



Debt Financing

- Commercial Banks

- Make 1-5 year intermediate-term loans secured by collateral (receivables, inventories, or other assets).
- Questions in securing a loan:
 - What do you plan to do with the money?
 - How much do you need?
 - When do you need it?
 - How long will you need it?
 - How will you repay the loan?



START UP COSTS



Fixed and Variable costs.

Fixed costs remain constant in total (not per unit) regardless of the volume of production or sales, over a relevant range of production or sales.

Rent and salaries are typically fixed costs

Variable costs fluctuate in total (not per unit) as the volume of production or sales fluctuates

- **Direct labour costs, Direct material costs used in production, and sales commissions are examples of variable costs.**

Examples: Indirect materials and indirect labor

Example:

Wages paid to
automobile
assembly workers

Materials used to
support the
production process.

Examples:
lubricants and
cleaning supplies

Wages paid not directly
involved in production
work.

Examples: maintenance
workers, janitors and
guards.

Example:
The tires installed in an
automobile

Direct
Materials

Direct
Labor

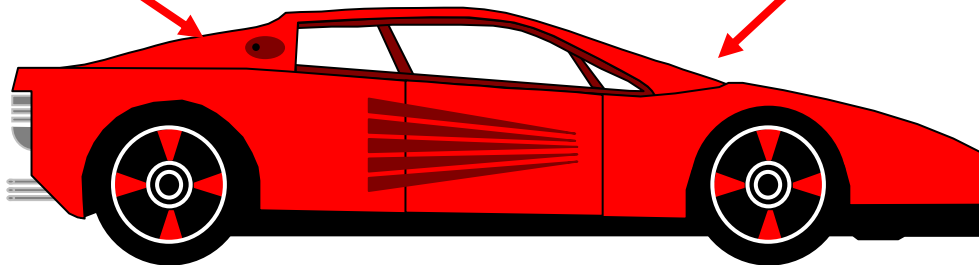
Manufacturing
Overhead

Administrative Costs

Other
Costs

All executive,
organizational, and clerical
costs.

▪ Selling and
distribution
▪ Rent₃₄
▪ Utilities



The Product



Wro Addis was granted a (micro credit) loan of ETB 30,000.00 from Oromia Credit and Savings Share Company. The loan was utilised as follows:

Purchase of machines	ETB 24,000.00 (1 straight and 1 over locking machine)
Raw materials	<u>ETB 6,000.00</u>
Total	<u>ETB 30,000.00</u>

Interest is charged at a rate of 12 % per annum (simple average). The loan and interest is repayable in one year over 12 instalments, but Wro Addis expects, that she can use the machines for about 5 years. For profitability calculation she will therefore apply depreciation on the investment over 5 years.

Thanks to a very beautiful and innovative design, she has been offered an order for cultural dresses by retailers around Merkato in Addis Ababa at a price of ETB 700.00 each. To produce an average size dresses (size 34) the following are required:

Cloth	2 metres at	ETB 150.00 per meter
Buttons	20 pieces at	ETB 5.00 per button
Belt	1 metre at	ETB 50.00 per meter

The average monthly costs for packaging and other production materials (auxiliaries) are around ETB 700.00 (at full capacity). Genet, the seamstress, works 8 hours per day. Genet's monthly wage is ETB 2,000 with 20 working days per month, and she produces 2.5 dresses a day working on both machines.

Depreciation on machines:	Straight line method over a period of 5 years.
Building rent:	ETB 2,500 per month
Utilities (water and electricity)	ETB 400 per month
Selling and distribution cost	ETB 600 per month
Maintenance contract	ETB 200 per month
Administration expenses	ETB 400 per month
Wro Addis's salary	ETB 3,000 per month

Calculate:

1. The total costs per month at full capacity
2. The profit / loss that the business will make from this order

THE TAILOR SHOP of Wro Addis - COST STRUCTURE				
				Cost (ETB) per month
Direct material & expenses	[(Cloth 2x150ETB)+(Button 20x5ETB) +(Belt 1x50 ETB)] per unit	2.5 dresses per day x 20days= 50dresses per month	[2*150+20*5 +1*50]*50 =	22500
Variable cost				22,500
Monthly interest	[amount x int. rate x years]/month = [ETB 30,000 x 12 % x 1]/12 =			300
Depreciation:	ETB 24,000 ÷ 60 months =			400
Auxiliary materials & packaging				700
Maintenance / repairs				200
Administration cost				400
Salaries (regular salaries in production)				2000
Salaries (Wro Addis)				3000
Rent				2500
Utilities				400
Selling expenses				600
Total Fixed Cost				10,500
Total cost (Variabl+ fixed)				33,000

Gross- and Net Profit

Turnover:

50 dresses per month x ETB 700.00 each = ETB 35,000 per month

SALES	ETB 35,000
- Cost of production	<u>ETB 22,500</u>
= Contribution (Gross Profit)	ETB 12,500
- Overheads (fixed costs)	<u>ETB 10,500</u>
= NET PROFIT	ETB 2,000

Break-even Analysis

“A firm Breaks Even if it doesn’t make a profit or a loss”

In other words profit = 0

- Total Revenue = Total Costs
- Total Revenue (TR)= Price per unit x Number of units sold
- Used to evaluate whether the organisation will be able to cover costs (break even) at a particular price

Uses of break- even analysis

- It enables a business organization to:
 - Measure profit and loss at different levels of production and sales
 - To predict the effect of changes in price of sales
 - To analyse the relationship between fixed cost and variable cost
 - To predict the effect on profitability if changes in cost and efficiency

Break even analysis

The calculation is as follows:

- Break- Even in unit =
$$\frac{\text{Fixed costs}}{(\text{Sales} - \text{Variable costs})}$$
- Break-Even in Birr =
$$\frac{\text{Fixed costs}}{(\text{Sales} - \text{Variable costs}) / \text{Sales}}$$

Example

- A small street side cafe offers fresh traditional coffee to the general public. Total variable costs per coffee (including coffee beans, water, firewood, sugar) amount to ETB 1.60 per cup. The cafe has fixed costs per week of ETB 360.00, being the rental of the place. The selling price is ETB 4.00.

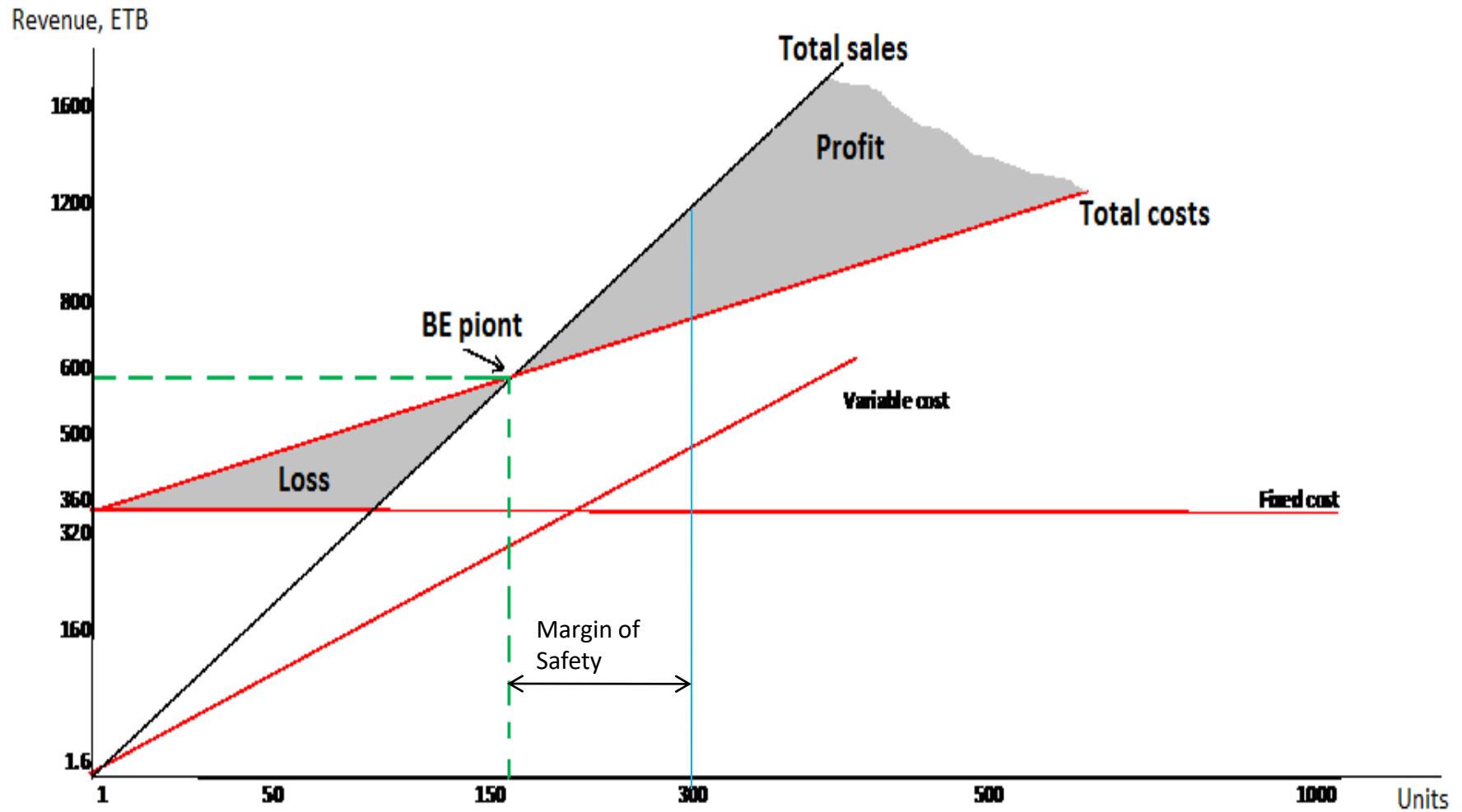
Solution

- From the problem
- Total Fixed costs = 360ETB/week and Total Variable costs = 1.6ETB / cup
- Calculate sales = 4ETB/cup

Con...

- **Break- Even in unit** = [fixed costs / (Sales-variable cost)]
- $= [360 / (4 - 1.6)] = 150 \text{ units}$
- Therefore, the business must sell 150 cups of coffee (per week!) in order to break-even. Let us put it to the test:
- Sales $150 \times \text{ETB } 4.00 = \text{ETB } 600$
- Variable costs $150 \times \text{ETB } 1.60 = \text{ETB } 240$
- Fixed costs = ETB 360
- Profit / loss = Sales - (fixed + variable) costs $= 600 - (360 + 240) = 0$
- **Break-Even in Birr** =
$$= (360 / [(4 - 1.6) / 4]) = \frac{\text{Fixed costs}}{(\text{Sales} - \text{Variable costs}) / \text{Sales}}$$
$$600 \text{ or } 150 * 4 = 600$$
- Once break-even point has been reached, a business enjoys greater flexibility when setting prices or offering discounts.

DIAGRAMMATIC PRESENTATION



Demerits of Break Even analysis

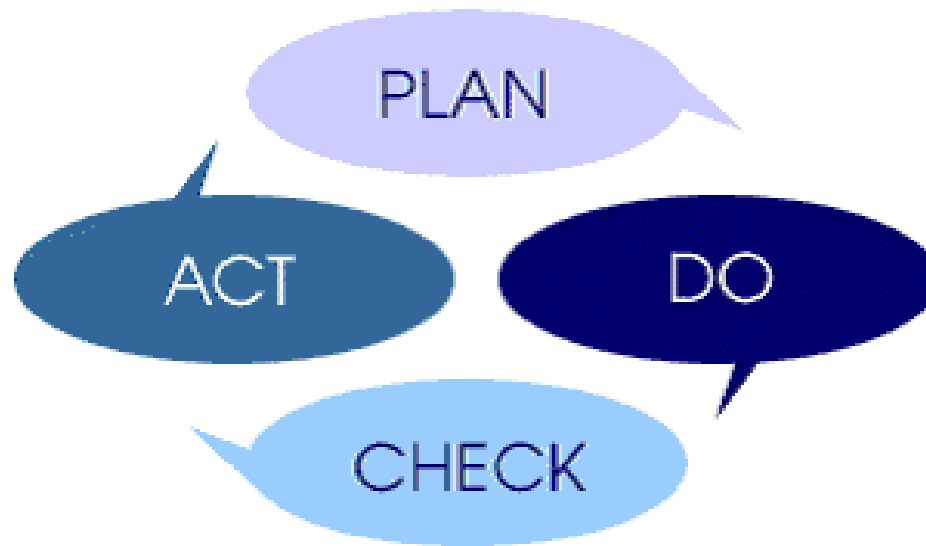
- It is only a forecast!
- Assumes all products are made AND sold
- Assumes that sales prices are constant at all levels of output
- Costs may change
- It can only apply to single product or single mix of products



BUDGETARY CONTROL

Elements of control

- Measure and compare actual performance against budget
- Investigate differences between budget and actual outcomes
- Take appropriate corrective action



Budgets and people



'Will you stop saying "ouch" everytime I cut something out of your budget.'

Entrepreneurship for Engineers:2020

