

SUB MODULE 5

VALUE DELIVERY FROM INNOVATION

CONTENTS

1. Creating the innovative Organization/company
2. Positioning in the value chain
3. Marketing of Technology Products
4. Technology Transfer

1. Is it possible to build an organization/institution/company to systematically come up with new innovations/invention?
2. What are the key issues for creating innovative/creative organization/institution/company?

CREATING INNOVATIVE COMPANY

- Creating an innovative organization requires a clear understanding of **Vision, mission and goals** of the **organization**
- The **individual innovations** can be examined towards achieving the organization **Vision, Mission and goals**
- It has to be measured to what extent they actually **contribute** to achieving the **organization's purposes**
- Success depends on both ***what*** you do and ***how*** you do it

CREATING INNOVATIVE COMPANY

Innovation-friendly Organization 6 Components



HOW TO CREATE AN INNOVATIVE ORGANIZATION/COMPANY ?

1. Develop your innovation approach

- Leadership's willingness to make the right moves
- Often innovation involve broad changes and cumulative effect of many decisions
- Developing your own unique approach for innovation
- Develop a unique approach that works and fits the culture of the company
 - Eg. Amazon's approach centers around customer obsession
 - Apple is famous for their innovation through design approach
 - Toyota's approach historically had been around continual process improvement

HOW TO CREATE AN INNOVATIVE ORGANIZATION/COMPANY ?

2. Build societal value

- “*Innovation is a series of steps that begins with human imagination and creativity and results in the creation of something of value for society to enjoy*”
- Focus on creating offerings that create value and improves customers' experiences
- Are you truly enhancing value for a user?
- Are you creating something that would make your life or the lives of your loved ones better?

HOW TO CREATE AN INNOVATIVE ORGANIZATION/COMPANY ?

3. Make innovation everyone's job

- You can't create the most innovative company in the world by making innovation the job of a few people
- Every employee has the ability to innovate but very often are afraid to do it, or believe it's someone else's job
- Innovation has to be everybody's job
- Everyone has an opportunity to do something innovative in the process

4. Invest in people

- Employees need to feel connected to the company
- They need to feel invested in it
- They need you to appreciate how invested they are in it
- Support your team in learning the skills to be innovative

HOW TO CREATE AN INNOVATIVE ORGANIZATION/COMPANY ?

5. Understand your customers

- It's crucial to understand your **customers' psychology** in order to spur new ideas and
- Encourage customer centricity
- Walk a mile in your **customer's shoes**

6. Recognize and protect Entrepreneurs

- Develop appropriate process to nurture their entrepreneurial talent
- Offer explicit **executive support**
- Protection to the **entrepreneurs' life expectancy**

HOW TO CREATE AN INNOVATIVE ORGANIZATION/COMPANY

7. Accept mistakes

- Organization Growth is tied with innovation and innovation requires taking risks
- Capitalize on the learning behind the shortfalls

8. Transformational leadership

- Style of leadership where a leader works with subordinates to identify needed change,
- Creating a vision to guide the change through inspiration,
- Executing the change depends on committed members

HOW TO CREATE AN INNOVATIVE ORGANIZATION/COMPANY

9. Create a creative space

- Create a space that helps your employees be stimulated,
- Collaborate on solving problems,
- Reflect on their ideas
- Most importantly enjoy their work-space **Psychologically and Physically**

EXAMPLES OF THE UNIQUE PHYSICAL CREATIVE SPACE

GOOGLE CAMPUS DUBLIN – DOCKS CAFE



GOOGLE CAMPUS DUBLIN – TECH STOP



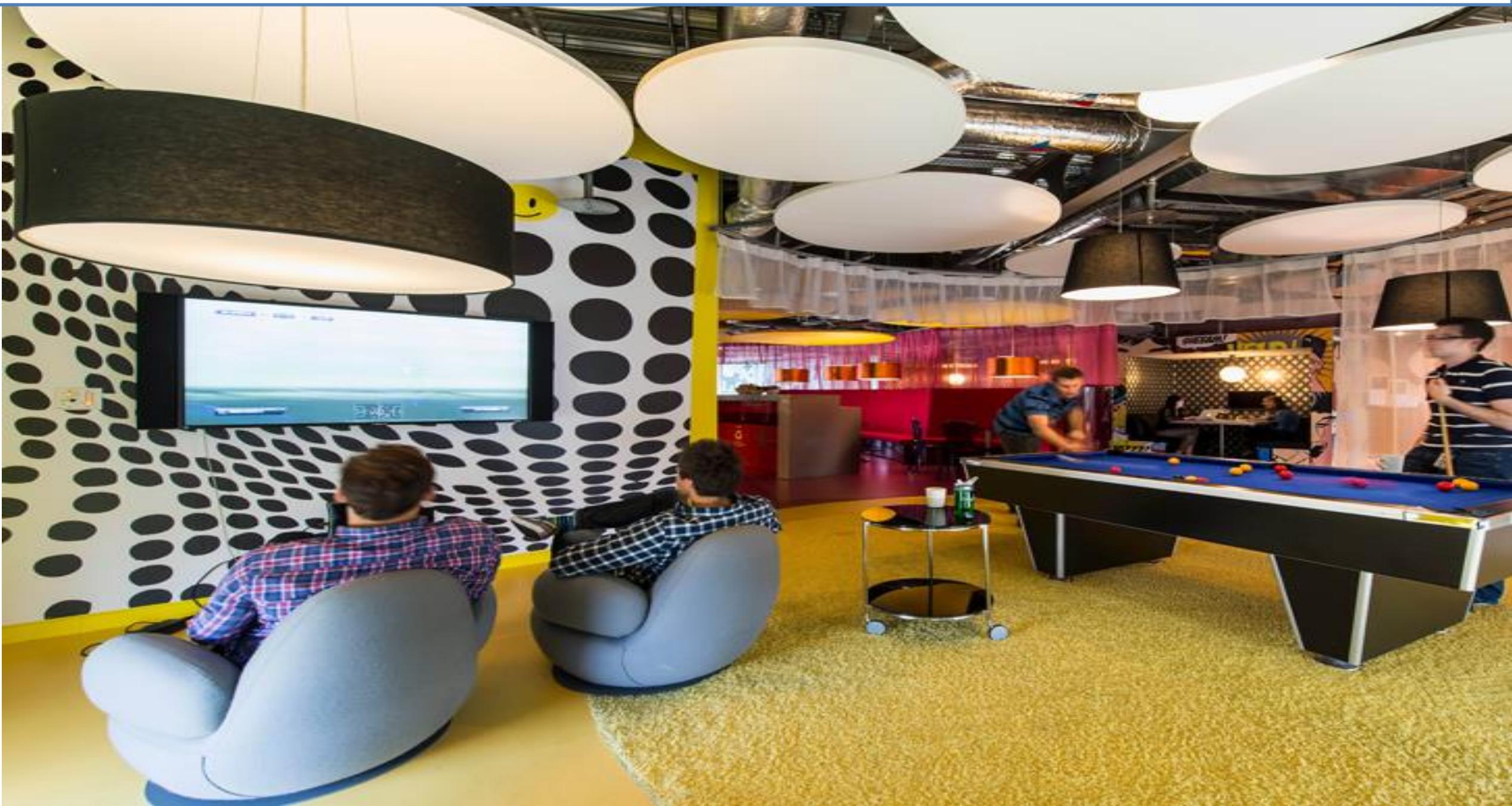
GOOGLE CAMPUS DUBLIN – BRAINSTORMING SPACE



GOOGLE ZURICH – JUNGLE LOUNGE



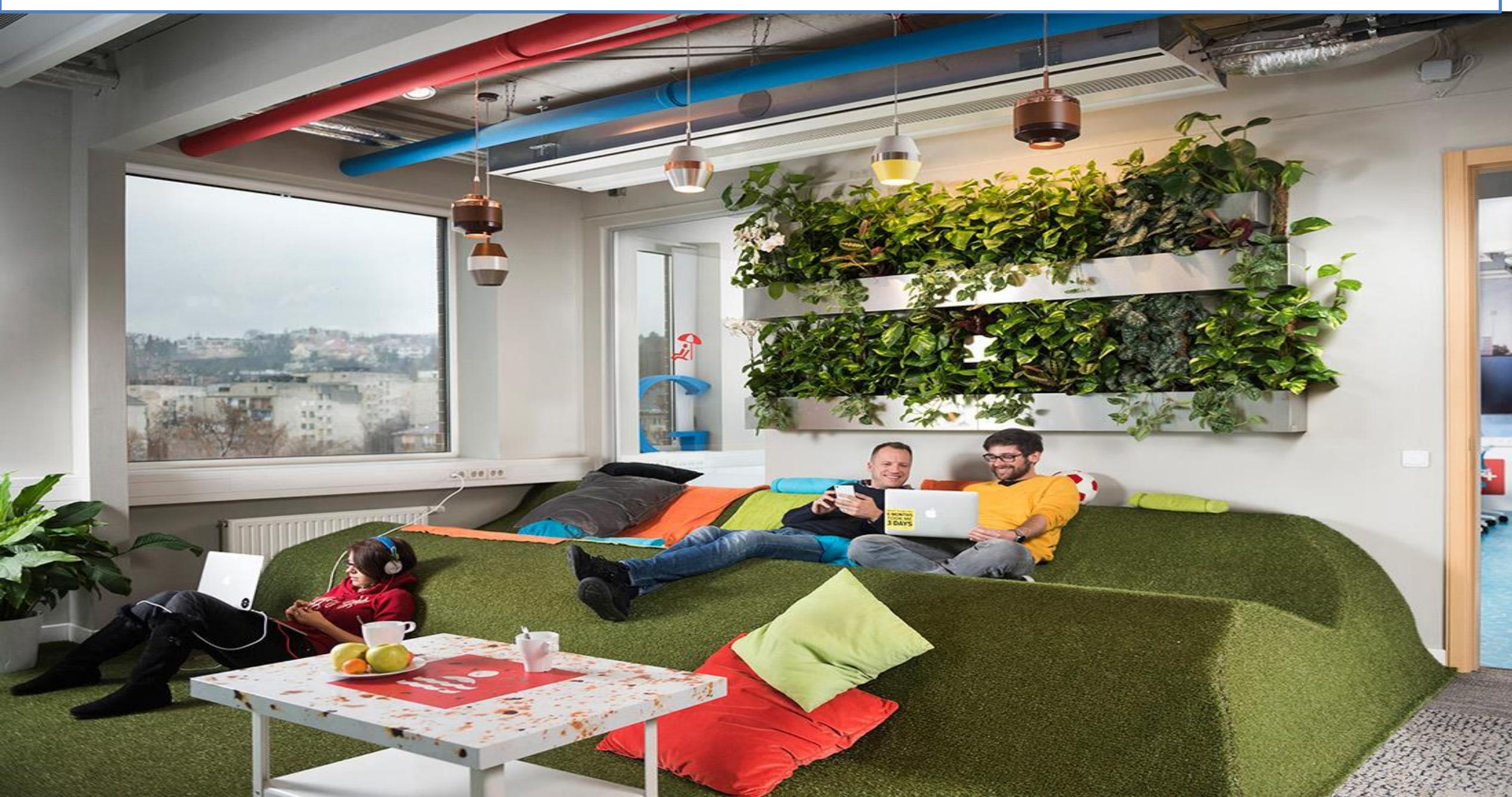
GOOGLE CAMPUS DUBLIN – COMMUNICATION HUB



GOOGLE BUDAPEST – MEETING ROOM



GOOGLE BUDAPEST – BREAK OUT SPACE



FACEBOOK OFFICE



APPLE OFFICE



POSITIONING IN THE VALUE CHAIN

- A value chain describes all the business activities it takes to create a product from start to the end (e.g., design, production, distribution, etc.).
- A value chain analysis gives businesses a visual model of these activities
- Identifying the primary and support activities is the first step in creating a value chain analysis
- There are five primary activities- all the actions that go into the creation of a business' offering :
 - Inbound logistics
 - Operations
 - Outbound logistics
 - Marketing and sales and
 - Services

VALUE CHAIN PRIMARY ACTIVITIES

1. Inbound Logistics

- ❑ This is how materials and resources are gained from suppliers before the final product or service can be developed

2. Operations

- ❑ Operations are how the materials and resources are used resulting in a final good or service

3. Outbound Logistics

- ❑ Once a product or service is finished, it needs to be distributed
- ❑ Outbound logistics describes this delivery process

VALUE CHAIN PRIMARY ACTIVITIES

4. Marketing and Sales

This is how your product or service is presented and sold to the ideal target market

5. Services

This is the support a business provides for the customer:

THE VALUE CHAIN SUPPORT ACTIVITIES

- Four Support activities help the primary activities in creating an advantage over competitors:
- Firm Infrastructure,
- Human resources management,
- Technology development
- Procurement

VALUE CHAIN SUPPORT ACTIVITIES

1. Firm Infrastructure

- ❑ Management, financial, and legal systems a business has in place to make business decisions and effectively manage resources.

2. Human Resource Management

- ❑ All the processes and systems involved in managing employees and hiring new staff.
- ❑ For companies that provide in-person service, and excellent employees can be a competitive advantage

VALUE CHAIN SUPPORT ACTIVITIES

3. Technology Development

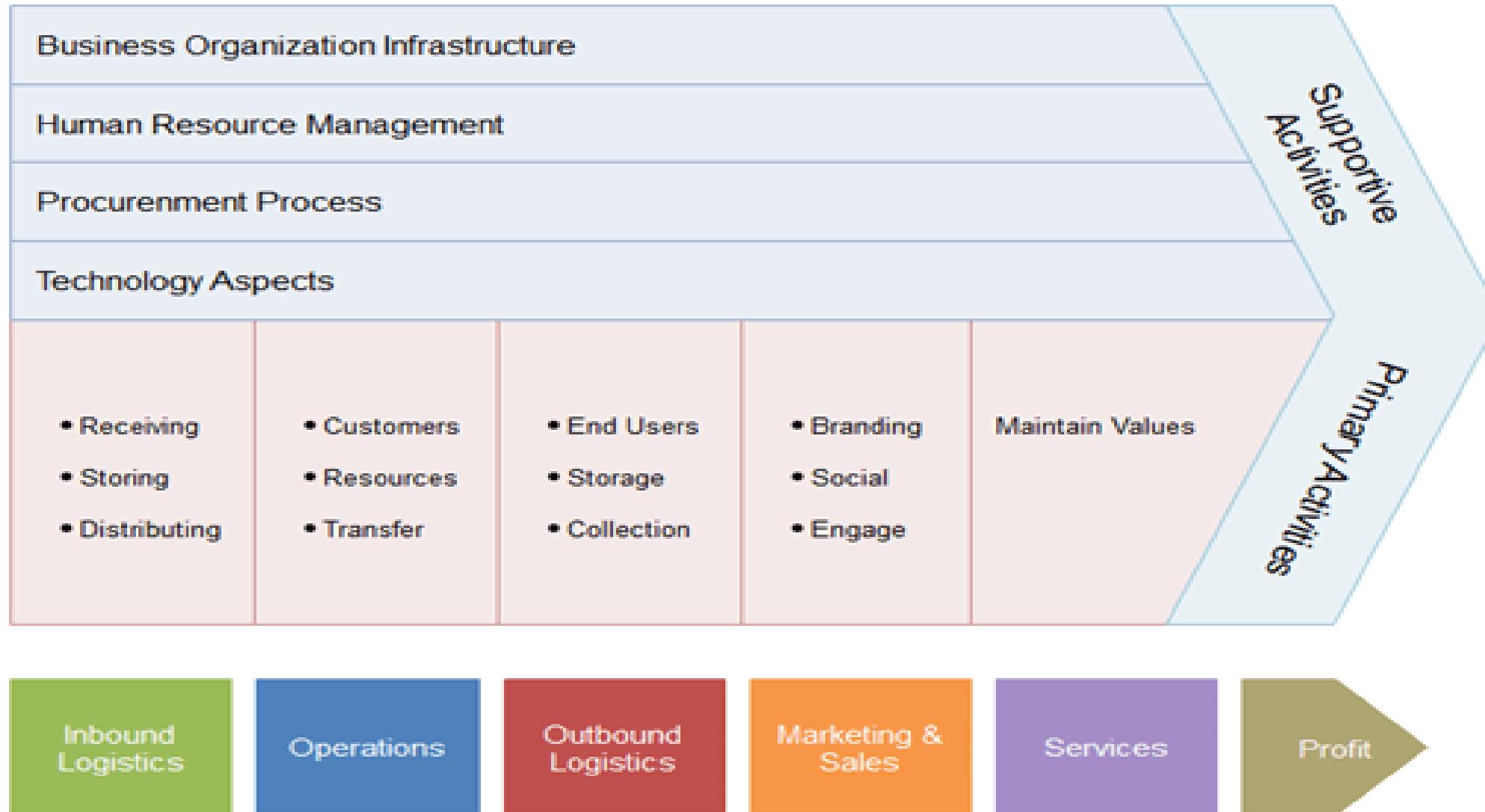
- ❑ Helps a business **innovate**
- ❑ Technology can be used to **gain an advantage over competitors**
- ❑ Increasing efficiency

4. Procurement

- ❑ Resources and materials for a product are **sourced** and supplied
- ❑ The goal is to find **quality supplies** that **fits** the **business' budget**

VALUE CHAIN ANALYSIS MODEL

Porter's Value Chain Analysis Model



MARKETING TECHNOLOGY PRODUCT

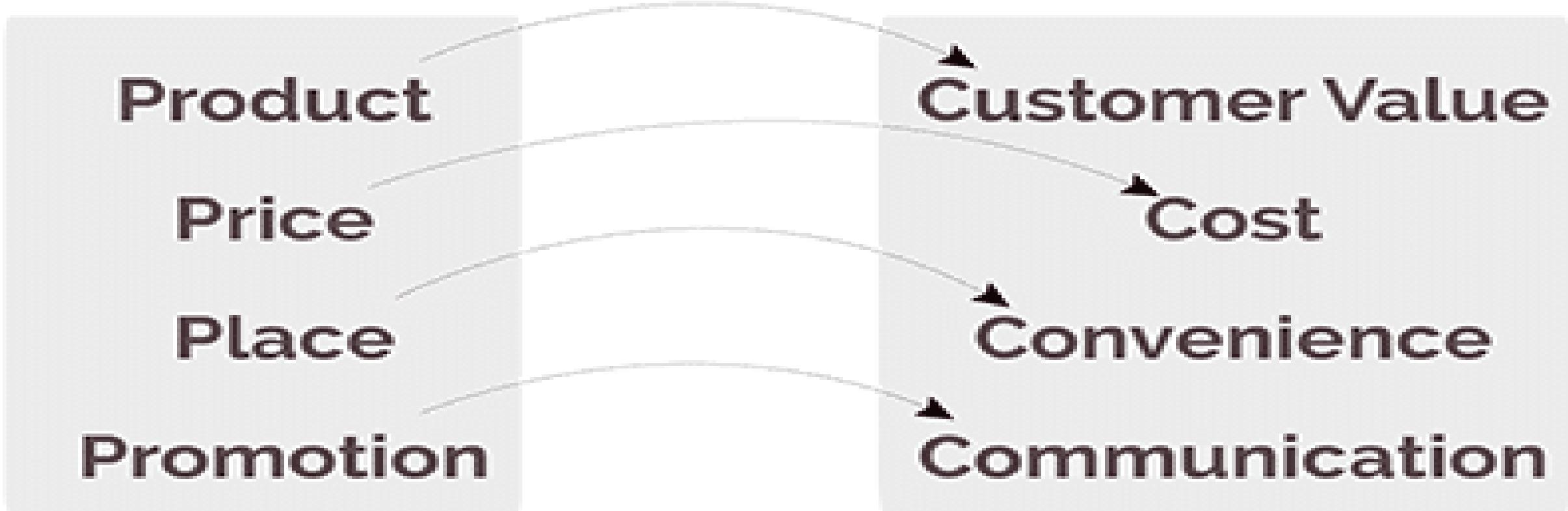
- Marketing is a process by which companies/firms **create value for customers** and build strong relationship to **capture value** from customers in return (Kotler)
- The heart/core of marketing is to **understand your customers' needs** and **wants** and **develop a plan** to surround those needs and wants.
- Marketing is about making it easy for the customer to say “**YES**”
- **Technology:** Methods, and systems employed in the creation of goods or providing services

MARKETING MIX/PRINCIPLES

- Marketing mix: It is about putting the right product in the place, at the right time, and at the right price
- In business that if you don't know your target market well enough and figured out what they exactly want- Planning to fail in business
- The marketing mix is associated with the 4P's of marketing goods, the 7P's of service marketing, and the 4 Cs theories developed in the 1990s

MARKETING MIX/PRINCIPLES

4Ps to 4Cs



MARKETING MIX/PRINCIPLES

1. Product: Product refers to the **goods and services**, offered to the **customers** for sale and are capable of satisfying their **needs** and **wants**

- Strategic decisions on the product **variety, quality, design, features, brand name, packaging, size, labelling**
- Product differentiation is the key, that helps in creating brand value

2. Place: Place refers to the easy **availability** of the product in the target market

- It refers to **distribution channels**
- It implies that a **suitable marketing channel** is to be chosen,
- Products or services **location** that is easily accessible to the target customers

MARKETING MIX/PRINCIPLES

3. Price: Price is described as the amount which a customer pays to get the desired good or service.

- The pricing of the product should be done keeping in mind the competitor's price, terms of sale, customer location
- While deciding the prices the value and utility of the product to its customers are to be considered

4. Promotion: Marketing communication, as in publicizing the product to convey product features

- It aims at grabbing the attention of customers and instigating them to buy it
- Advertising, Direct marketing, Sales Promotion, Personal Selling, marketing campaigns
- Advertising - communication methods like television advertisements, radio commercials, print media, and internet advertisements

MARKETING MIX/PRINCIPLES

5. People: In fact, without people, products will not exist

- Without people, no one would be responsible for selling and getting products to the markets
- Marketer - customer relations is very important for goods or services positioning
- Employee – employer relations is important in branding the company, goods or services
- People are the **backbone** of the company
- Proper customer service needs trained and experience employee

MARKETING MIX/PRINCIPLES

6. Physical Evidence: As the name suggests, it refers to the marketing environment wherein the **interaction** between **customer** and firm takes place

- People often make decisions based on what they see, first impressions last—and mean a lot
- ***"Image Is Everything"***
- Physical evidence is about creating face for your product/service
- Logos and images, or the color patterns for packaging and promotional materials

MARKETING MIX/PRINCIPLES

- 7. **Process** :It's one of the most important principle in the marketing mix 7P's
 - No advertising campaign has been successful without proper processes of execution
 - **Electronic Processes:** barcodes, graphics or logos, and the information about a product/company

PROTECTION METHODS OF THE INNOVATIVE PRODUCTS/SERVICES

- Trade Secret
- Confidentiality agreement
- Patents/ copy right/trade marks
- Complementary manufacturing
- Lead time
- Complex design of products

PROTECTION METHODS OF THE INNOVATIVE PRODUCTS/SERVICES

1. Trade Secret

- Not known: formula, practice, process, design, instrument, pattern, commercial method
- Business can obtain an economic advantage over competitors or customers
- Protection of chemical formulae, recipes, and industrial processes

Eg. Coca Cola and Pepsi

2. Confidentiality agreement – non disclosure agreement

- An agreement designed to protect trade secrets and intellectuels from being misused
- It is a legal contract between at least two parties that outlines confidential material, knowledge, or information: wish to share with one another for certain purposes,
- But restricts access to or by third parties.

PROTECTION METHODS OF THE INNOVATIVE PRODUCTS/SERVICES

3. Patents

- A Patent is an exclusive rights to a new product, process, substance or design
- It covers an invention or new technology,
- Enables the creator to prevent others from using, selling, manufacturing or copying the innovation without permission for a limited period
- The patent owner discloses details of the innovation behind the invention as during patent application

4. Trademark

- Trademark is an exclusive rights to words, symbols or other marks to distinguish goods and services
- It is a recognizable sign, design, or an expression which identifies products or services
- Eg. business name, slogans, logos and other items that essentially brand the product or company*

PROTECTION METHODS OF THE INNOVATIVE PRODUCTS/SERVICES

5. Copyright

- ❑ Copyright is the exclusive legal right, given to artistic, dramatic, and musical works
- ❑ However, registration is required if a business wants to sue over the use of the material by another party
- ❑ *Eg. business can copyright its books, reports, audio or video materials*

6. Complementary manufacturing

- ❑ This occurs when I company gives rights to another company to manufacture similar products
- ❑ It is mostly practiced in the medicine
- ❑ *Eg. A company in Europe gives right to manufacture similar drugs to a company in India*
- ❑ *Allow that kind of drugs to be sold with cheaper price in the third world countries*

PROTECTION METHODS OF THE INNOVATIVE PRODUCTS/SERVICES

7. Lead time

- An innovative firm gains rewards by **being first on the market** before its **rivals** can catch up with **imitations** of the innovation
- By constantly **innovating relatively faster** than its competitors, a firm can keep ahead of the imitators, uphold its “**leading position**”

8. Complex design of products

- Using **complex designs** is another protection mechanism which can potentially block competitors from direct imitation or reverse engineering
- Imitators would have to work the whole innovation process and to spend substantial **time** and **resources**

Technology Transfer – Driving Force of Innovation

- Technology transfer has shown its crucial role in economic and business development
- Technology transfer is one of the most effective ways to reduce a technological gap between developing and developed countries
- Developing countries it is an excellent opportunity to increase competitiveness of local businesses and create innovative environment
- Hong Kong, Singapore, South Korea and Taiwan are examples of economic modernization based on technology transfer

TECHNOLOGY VALUATION

- ❑ Technology valuation is an essential part of technology transfer
- ❑ It helps to determine the price that will objectively reflect the value of technology
- ❑ Technology valuation is complicated if the technology is still in process of development
- ❑ Technology valuation proves that the proposed price is realistic and objective one

TECHNOLOGY VALUATION METHODS

- There are three basic methods of technology valuation
 - Cost Approach
 - market Approach
 - Income approach
- The methods are based on logical analysis of the existing information on a new technology
- There are also several more sophisticated methods involving complex mathematical calculation

COST APPROACH TECHNOLOGY VALUATION METHOD

- The **cost approach** is based on the assessment of the **costs** of developing a new technology
- For the developer, the **value** of the new technology is equal to the **total amount of costs** associated with technology development,
 - Indirect costs for **infrastructure, utility, manpower, taxes** etc.
- The buyer estimates the **future costs** for replication of the technology
- This method can be potentially applied to the **transfer of equipment** and other **tangible assets**
- But it is almost impossible to **estimate costs** for the creation of **intellectual property** which is purely intangible

COST APPROACH TECHNOLOGY VALUATION METHOD

- It is obvious that the cost **approach of valuation** is highly **subjective**
- Eg. Some of the supplier's costs could be a result of inefficient management
- From the buyer's point of view these costs will be **not justified**
- Cost approach doesn't reflect the future income of the **new technology** and its **market position**
- However, the cost approach can be a basis for the initial stages of **negotiations**
- The method can be useful in the establishing of a joint venture by evaluating the investments made by each party

INCOME APPROACH TECHNOLOGY VALUATION METHOD

- The income approach is based on the expectation of future cash flows resulting from the technology implementation
- The method determines the profit-creating potential of the new technology
- The value of technology is considered as the difference between the cash inflows and outflows over a certain period of time
- The main drawback of the estimation of future revenues is the uncertainty of any long-term prediction
 - Factors affecting the market (future demand, regulation, exchange rate, etc.)
 - Technology which can become obsolete (outdated)

MARKET APPROACH TECHNOLOGY VALUATION METHODS

- The market approach is based on the **comparison** of value of similar technologies that are already **available on the market**
- This method is a reliable way to get the **market price** for which at the moment technology can be acquired
- However, in practice, the **active market** of new technologies doesn't always exist
- For example, in case of a **breakthrough technology**, it is difficult to find the **comparable equivalents**
- Besides, the **market approach** and **cost approach** doesn't reflect the future income generated by a new technology

TECHNOLOGY TRANSFER METHODS

- The choice of a technology transfer method should be based on
 - Technology analysis
 - Future strategy of cooperation with a company's supplier,
 - Investment resources
 - Technical capacities of the company to implement the technology
- The choice of the transfer method considers complexity of the technology
- If the Technology is complex the buyer and supplier should be closer

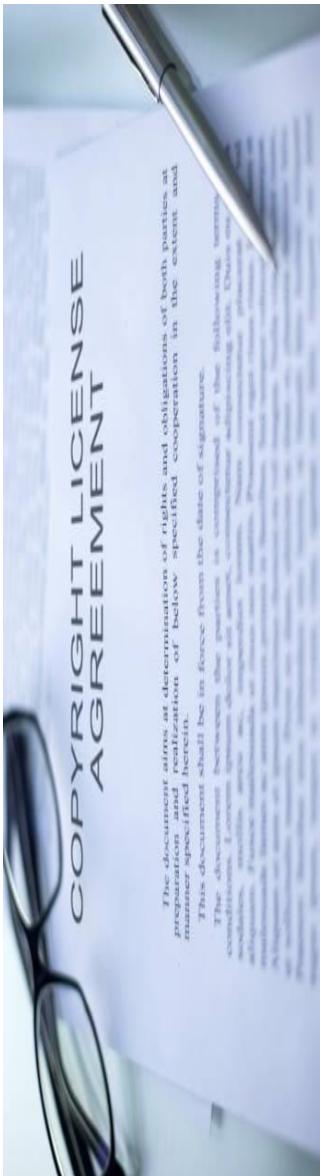
TECHNOLOGY TRANSFER METHODS

□ Technology Transfer methods Include:

- Licensing**
- Support Contract**
- Joint Venture**
- Franchising**
- Strategic Alliance**
- Turnkey Agreement**
- Foreign Company Acquisition**
- Direct foreign Investment**
- Buy back Contract**
- Original equipment manufacture**

TECHNOLOGY TRANSFER METHODS –LICENSING

- Licensing is an agreement under which the owner of a patent, trademark or other intellectual property rights gives permission to another company to use the technology developed in a certain area during a certain period of time
- There are two main types of licenses:
 - grants an exclusive right to use the technology;
 - grant with non-exclusive right to use the technology
- The licensing agreement could include a sublicensing clause which permits the licensee to grant to someone else the right to use the technology
- The advantage of buying a license/patent is that it has lower costs, compared with other technology transfer methods
- The purchase of a license requires sufficient knowledge, experience, relevant expertise and manufacturing base for technology implementation



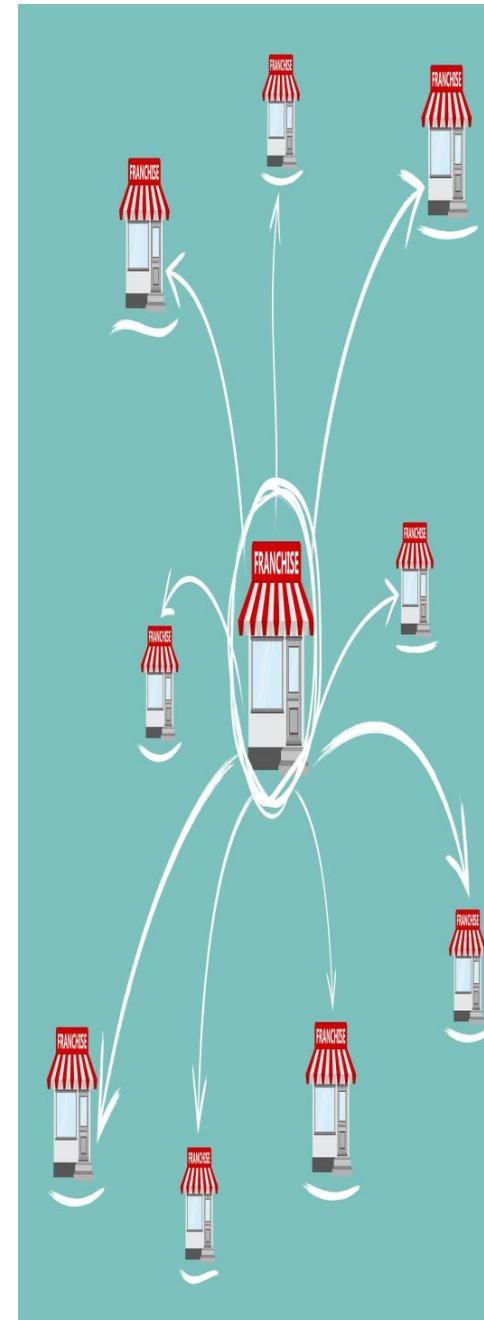
TECHNOLOGY TRANSFER METHODS –LICENSING

- According to this agreement, the technology owner participates in the **technology implementation**,
- The **technology owner** provides the transfer technical support as well as personnel training
- The involvement of technology developer in the technology transfer process ensures
 - Close cooperation between the **developer** and **implementer**
 - It helps in complete transfer of **knowledge** and skills related to the technology



TECHNOLOGY TRANSFER METHODS –FRANCHISING

- A franchise is a type of **business structure**
- In exchange for a fee, the owner of a business (franchisor), will license a third party, called a **franchisee**
- The right to operate a business using their **name, brand, business plan, and operation techniques**
- It is adopted by an organization as a strategy for **business expansion**
- The buyer of the franchise starts **manufacturing and selling the goods** according to the seller's (Franchisor) specifications
- The main advantage of franchising is the fact that the **franchisee gets an already-made brand**



TECHNOLOGY TRANSFER METHODS –FRANCHISING

- The franchisee agrees to comply with certain obligations, set out in a Franchise Agreement
- The disadvantage is the franchisee dependence on the technology owner
- The franchisee has to purchase raw materials, equipment and other products from specific vendors
- It must follow internal rules and procedures of the technology owner
- The Franchisee cannot bring the product to other markets as well as sale the franchise
- The decline of the franchise owner reputation could have an impact on the Franchisee



TECHNOLOGY TRANSFER METHODS –JOINT VENTURE

- A joint venture is an **agreement** concluded between two or more **companies** in order to **execute a particular business**
- The joint venture implies mutual **assets, management, risks, profit sharing, co-production, services and marketing**
- Benefits from a joint venture in case of **technology transfer** are the following:
 - long-term cooperation between the parties,
 - lowers costs
 - Risks sharing



TECHNOLOGY TRANSFER METHODS –JOINT VENTURE

□ The disadvantages of a joint venture

- The different **vision** and **goals** of both partners,
- Inability to be independent in **management**
- Companies are not always able to determine objectively the **value of capital contributed**
- Eg. The foreign company provides **innovative technology** and **management competence**,



TECHNOLOGY TRANSFER METHODS –STRATEGIC ALLIANCE AGREEMENT

- A strategic alliance **agreement** is usually concluded between two or more **big companies**:
 - in order to use specific **skills** of each of them in the development of **new innovative technologies**
- Strategic alliance could be:
 - Joint laboratories,
 - Research programs,
 - production and promotion of a new product
- Mutual efforts of different partners give **better results** than an independent development of **a new technology**
- Each company can get the **needed experience** in new areas and in different forms of management
- The major weakness is the **complexity in managing companies** with different **cultures**
- The companies may have **different goals** and **strategies** in business development of the **new technology**



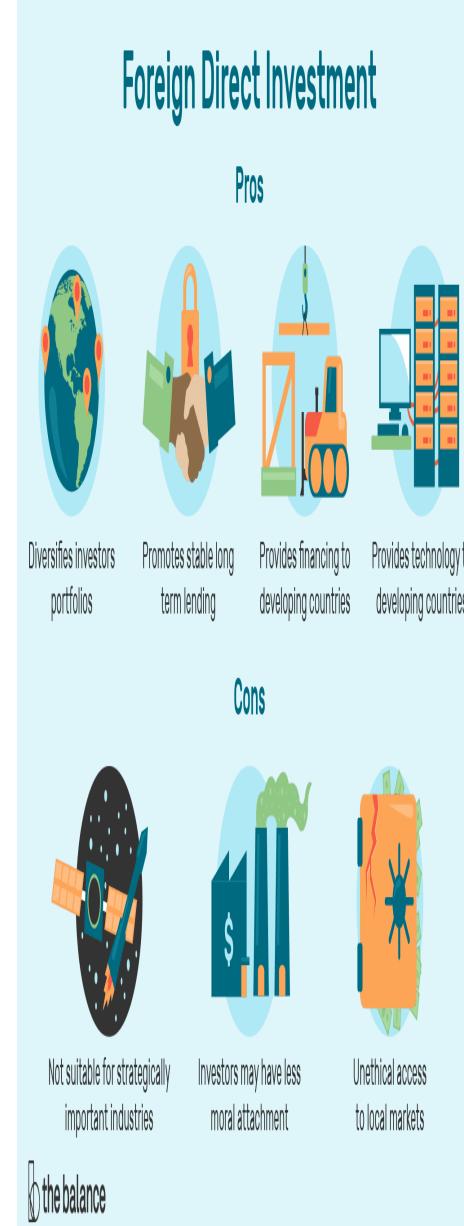
TECHNOLOGY TRANSFER METHODS –FOREIGN COMPANY ACQUISITION

- A company may **acquire/purchase** a **foreign startup** which is developing a new technology
- As a result, the company will not only get the **technology**, but also a **team capable to develop** it in the future
- The **acquisition of a foreign firm automatically** places the company on the **new international market**
- The main risks of buying an existing firm:
 - The possibility of **resignation** of key employees after the **acquisition**
 - The founders of the successful startup; sells the company only for a **price significantly higher** than the market Price
 - This increases the risk of the **profitability** in the future



TECHNOLOGY TRANSFER METHODS – DIRECT FOREIGN INVESTMENT

- Direct foreign investments is one of the main methods of technology transfer at the state level
- A foreign company invests in developing countries in order to create a new market, remove export barriers and get an access to cheap labor
- In this case, a developing country gets all the benefits:
 - Technology transfer, particularly the development of its own research environment
 - it is a way to create new jobs and raise taxes



TECHNOLOGY TRANSFER METHODS – BUY-BACK CONTRACT

- A buy-back contract is a form of agreement between developing countries and large foreign companies
- Under this agreement, a foreign company supplies industrial equipment in exchange for profits derived from the sale of raw materials or goods produced on this equipment
- This kind of technology transfer is often used in the construction of new plants in the developing countries
- For a developing country it helps to get a high-tech equipment without direct investment in it.
- The foreign company is responsible for the performance of supplied technologies



TECHNOLOGY TRANSFER METHODS – ORIGINAL EQUIPMENT MANUFACTURER (OEM)

- It is considered as form of subcontracting, where a local firm starts manufacturing according to the foreign company specifications
- A foreign company transfers a part of its technologies and equipment
- The foreign company sells produced goods through its own channels and under its own trademark
- OEM agreement enables local companies to absorb new technologies and to reorganize the production
- With new equipment and skills, the firms can produce new goods for the domestic market under its own brand



Wrap up....!

Innovation Mgt & Effectiveness

1. Micro Economics of Competitiveness
2. Technological Innovation
3. Innovation Strategy
4. Networks and Communities
5. Value delivery from Innovation
6. Email: josephine.mkunda@nm-aist.ac.tz
7. 0788774853