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**COE502 Assignment**

**Concept of Business and Business Environment**

Concept Of Business: Business can simply be described as an economic system in which goods and services are exchanged for one another for money on the basis of perceived worth. All businesses are established for a purpose, if it is established for the purpose of making a profit, it is called a profit making business otherwise it is called a non-profit business. A business could be legal or illegal.

The concept environment literally means the surrounding internal, intermediate and external objects, influences or circumstances under which someone or something exists. An entrepreneur must constantly monitor he’s business environment because it determines the success or otherwise of the venture. They are various classifications/factors of the business environment such as: The Internal Environmental factors which are factors (Physical and social) which the entrepreneur has control over while the External Environmental factors are factors the entrepreneur has no control over but have tremendous impact on the survival of the business ie corona virus. SWOT analysis is the ability to identify the business strength, weakness, opportunity and threats, an organization has to carry out internal and external evaluation and also strength/weakness analysis and opportunity/threat analysis.

Forms Of Business Ownership and legal implications

There is no single best form of business ownership. Each form has its own set of advantages and disadvantages. The key to choosing the optimum form of ownership is to understand the characteristics of each business and how they affect an entrepreneur business and personal circumstances. They are some relevant issues an entrepreneur should consider while in the evaluation process which are; Tax consideration, liability exposure, start-up and future capital requirement, management ability, business goals, management succession plan, cost of formation.

Sole Proprietorship is a form of business ownership which is designed, managed and operated by one individual. It is the simplest and most popular form of ownership. A sole proprietor is the only owner and the ultimate decision maker for the business examples are plumbers, painters etc

Some Advantages of sole proprietorship are; Privacy, Ownership of all profits, Easy to discontinue etc.

Some disadvantages of sole proprietorship are; Limited access to capital for expansion, limited skills and abilities, unlimited personal liability etc.

Partnership is a legal form of business ownership between two or more owners. Partners legally share the business assets, liabilities and profits according to the according to the terms of a partnership agreement. A Partnership can be regarded as an improvement on sole proprietorship form of business organization, the minimum number of people that can form a business partnership is two while the maximum is twenty with the exception of partnership compromising professionals. There are four types of partnership on the basis of liability of partners, which are; General partnership, Limited partnership, Master limited partnership (MLP) and limited liability partnership. There are also several types of partnership on the basis of involvement in partnership, which are; General partner, Nominal Partner, Silent partner, Sleeping partner, limited partner, Secret partner. There are some advantages of partnership which are; Easy to establish, Secrecy, Flexibility etc. There are also some disadvantages of partnership which are; Unlimited liability, Division of profit, Disagreement among partners especially with regards to authority and control etc.

Each country has a body of laws that guide the registration and operation of companies. In Nigeria, Companies and Allied Matter Act(CAMA) of 1990 is the major law that guides formation and registration of companies.

A company is said to be limited by shares, if the liability of its members limited by the memorandum to the amount, if any unpaid on the shares respectively held by them. A company is said to be limited by guarantee if the memorandum to such amount as the members may respectively thereby undertake to contribute to the assets of the company in the event of its being wound up. A company is said to be unlimited when the members do not have any limit on the liability of its members.

Limited liability companies are companies incorporated or registered in Nigeria that is regarded as an artificial person, such company can sue and be sued. They can take the form of private or public companies. The private liability company can be formed by minimum of two persons and maximum of fifty persons excluding employees of the company both past and present while The public liability company is a company where the shareholders are members of the public. The shares are generally freely transferable. There are some advantages of limited liability, which are; Limited liability of shareholders, Ability to continue indefinitely, Ability to attract capital etc. There are some disadvantages of limited liability, which are; Double taxation, Difficulty of termination, Charter restrictions etc.

Co-operation is a form of business ownership which involves a collective ownership of a production, storage, transportation or marketing organization is what is referred to as a co-operative.

**Teamwork, Group Dynamic and Entrepreneurship**

A team is a unit of two or more people each of whom possesses particular aptitudes, knowledge and skills, who interact and coordinate their work to accomplish a specific goal.

Team building, as earlier noted, is the process of creating team features in a group in order to make them more effective. Team formation or process is made up of five stages namely: Forming, Stormy, Norming, Performing, Adjusting. For a team to be effective, it must possess certain characteristics. These characteristics, where absent or deficiently present, will naturally result in poor team performance. These characteristics are : Shared vision or goal, Strong team identity, Competent team member, Mutual trust, Effective communication etc.

A group is a collection of people who interact with one another regularly over a period of time and see themselves to be mutually dependent with respect to the attainment of one or more goals. They are some theories of group formation which are; Propinquity, George Hanmans theory of Activities, interactions and sentiments, Balance theory and Exchange theory. Practically, people form groups for economic, security and social reasons. Also they are various types of groups which are primary group, work group, formal group, informal group, psychological group and other types of groups. Some Advantages of groups to organization are; Accomplishment of task that cannot be done individually, Reservoirs of potential formal managers, Provide an efficient means for organizational control of employees, Bringing a number of talents to bear on complex and difficult task etc. Some advantages of group to individual; Aiding in learning about the organisation and its environments, Aiding in learning about oneself, Provide help in gaining new skills, Protection against perceived threats, An outlet of frustration etc. As they are advantages in a group they are also some minor factors that affect the group performance which are; Group size, Group Cohesiveness, Group Composition, Group Norms.

**The Roles of Vision, Mission and Objectives In Entrepreneurship Development**

Vision evokes pictures in the mind, It gives an imaginary picture of a preferred future which the leader must carefully guide the organization to reach. Components of Vision according to Collins & Porras, (1996) can be broadly classified into two, namely: Core Ideology and Envisioned Future.

The distinguishing function of a leader is to develop a clear and compelling picture of the future and to secure commitment to that ideal.

We have said that vision is a mental picture of a preferred future; it is essentially futuristic, and forward looking view of what an organization intends to become. Mission on the other hand is what an organization is and the reason for its existence. Kazim (2004) identified seven characteristics of effective mission statement as follows: It should be visible, It should be precise, It should be clear, It should be motivating, It should be distinctive, It should indicate major components of strategy, It should indicate how objectives are to be accomplished.

Organizational goals are defined goals as what an organization hopes to accomplish in a future period of time. They represent a future state or an outcome of the effort put in now. A broad category of financial and non-financial issues are addressed by the goals that an organization sets for itself while Organizational objectives, sees objective as the ends that state specifically how the goals shall be achieved. Objectives are concrete and specific in contrast to goals which are generalized; objectives make the goals operational.

**The Roles of Government and Business Regulatory Agencies In Nigeria**

Business regulatory/legal environment prescribes acceptable principles and guides in business relationship such that each party understands the requirement of the business relationship and that each party will conduct business activities in accordance with the laws of the land. There are three levels of regulations in Nigeria namely: The Federal Legislation acts, The State legislation laws, Local Government by laws. There are many aspects of regulatory and monitoring roles of government. In order to effectively carry out these roles, government has established different agencies/bodies with the appropriate legislative backings to ensure business operations are conducted in a friendly business environment. Some of the agencies and their functions include:-The Corporate Affairs Commission, National Agency for Food and Drug Administration and Control (NAFDAC), The Independent Corrupt Practices and Other Related Offences Commission (ICPC), The Economic and Financial Crimes Commission (EFCC).

In defining the role of government supporting entrepreneurship and SMEs, it is obvious that apart from designing a comprehensive entrepreneurship and SMEs strategy, the development of national SME support institutions and networks is one of the key conditions for success. The following are typical ways by which government promotes and supports entrepreneur; Tax Holiday, Financial incentive, Infrastructural development, Subsidies. They are also some objective of government regulations in the business sector; To raise the living standards of Nigerians, To promote general pattern of distribution, To make use of equal opportunity for cooperation, To regulate by-laws and taxation with a view to equating the private and social costs. SMEs in the private non-primary (i.e. non-farming) sector of the Community; the private sector and in particular SMEs form the backbone of a market economy and for the transition economies in the long-term might provide most of the employment (as is the case in the EU countries).

PROGRAMMABLE LOGIC DEVICE ARCHITECTURE

A Digital system family tree consist of some major categories which are standard logic, application-specific intergrated circuits and microprocessor/Digital signal processing devices. The first category of standard logic devices refers to the basic functional digital components (gates, flip-flops, decoders, multiplexers, registers, counters,etc.) that are available as SSI and MSI chips.These devices have been used for many years (some more than 30 years) to design complex digital systems. An obvious drawback is that the system may literally consist of hundreds of such chips. The microprocessor/digital signal processing (DSP)category is a much different approach to digital system design. These devices actually contain the various types of functional blocks that have been discussed throughout this text. With microcomputer/DSP systems, devices can be controlled electronically, and data can be manipulated by executing a program of instructions that has been written for the application. The third major digital system category is called application-specific integrated circuits (ASICs). This broad category represents the modern hardware design solution for digital systems. As the acronym implies, an integrated circuit is designed to implement a specific desired application. Four subcategories of ASIC devices are available to create digital systems: programmable logic devices, gate arrays, standard-cell, and full-custom. Programmable logic devices (PLDs), sometimes referred to as field programmable logic devices (FPLDs), can be custom-configured to create any desired digital circuit, from simple logic gates to complex digital systems. Standard-cellASICs use predefined logic function building blocks called cells to create the desired digital system. The IC layout of each cell has been designed previously, and a library of available cells is stored in a computer database. The needed cells are laid out for the desired application, and the interconnections between the cells are determined. Full-custom ASICs are considered the ultimate ASIC choice. As the name implies, all components (transistors, resistors, and capacitors) and the interconnections between them are custom-designed by the IC designer. Generally, PLDs can be described as being one of three different types: simple programmable logic devices (SPLDs), complex programmable logic devices (CPLDs), or field programmable gate arrays (FPGAs). The programming technologies used in FPGA devices include SRAM, flash, and antifuse, with SRAM being the most common. SRAM-based devices are volatile and therefore require the FPGA to be reconfigured (programmed) when it is powered-up. The programming information that defines how each logic block functions, which I/O blocks are inputs and outputs, and how the blocks are interconnected is stored in some type of external memory that is downloaded to the SRAM-based FPGA when power is applied. Antifuse devices are one-time programmable and are therefore nonvolatile. Antifuse memory technology is not currently used for memory devices but, as its name implies,it is the opposite of fuse technology. Instead of opening a fuse link to prevent a signal connection, an insulator layer between interconnects has an electrical short created to produce a signal connection. Antifuse devices are programmed in a device programmer either by the end-user or by the factory or distributor. Differences in architecture between CPLDs and FPGAs, among different HCPLD manufacturers, and among different families of devices from a single manufacturer can affect the efficiency of design implementation for a particular application. You may ask, “Does the architecture of this PLD family provide the best fit for my application?” It is very difficult, however, to predict which architecture may be the best choice to use for a complex digital system. Only a portion of the available gates can be utilized. There are several manufacturers with many different families of PLD devices, so there are many variations in architecture. The programming technologies for PLD devices are actually based on the various types of semiconductor memory. As new types of memory have been developed, the same technology has been applied to the creation of new types of PLD devices. Short for programmable logic device, a generic term for an [integrated circuit](https://www.webopedia.com/TERM/I/integrated_circuit_IC.html) that can be programmed in a laboratory to perform complex functions. A PLD consists of arrays of AND and OR gates. A system designer implements a logic design with a device programmer that blows fuses on the PLD to control gate operation. System designers can use development software that converts basic code into instructions a [device programmer](https://www.webopedia.com/TERM/P/programmer.html) needs to implement a design. The concept of PLDs has led to many different architectural designs of the inner circuitry of these devices.

PLD types can classified into the following groups

* [**PROMs (Programmable Read Only Memory)**](https://www.webopedia.com/TERM/P/PROM.html) - offer high speed and low cost for

relatively small designs

* **PLAs (Programmable Logic Array)** - offer flexible features for more complex designs
* **PAL/GALs (Programmable Array Logic/Generic Array Logic)** - offer good flexibility and are faster and less expensive than PLAs.

PROM: The architecture of the programmable circuits in the previous section involves programming the connections to the OR gate. The AND gates are used to decode all the possible combinations of the input variables. If you think of the input variables as address inputs and the intact/blown fuses as stored 1s and 0s, you should recognize the architecture of a PROM. The PROM architecture is well suited for those applications where every possible input combination is required to generate the output functions. Examples are code converters and data storage. When implementing SOP expressions, however, they do not make very efficient use of circuitry. Each combination of address inputs must be fully decoded, and each expanded product term has an associated fuse that is used to OR them together. The PAL has an AND and OR structure similar to a PROM but in the Programmable Logic Array (PAL), inputs to the AND gates are programmable, whereas the inputs to the OR gates are hard-wired. This means that every AND gate can be programmed to generate any desired product of the four input variables and their complements. Each OR gate is hard-wired to only four AND outputs. This limits each output function to four product terms. Field Programmable Logic Array (FPLA) used a programmable AND array as well as a programmable OR array. Although the FPLA is more flexible than the PAL architecture, it has not been as widely accepted by engineers. FPLAs are used mostly in state-machine design where a large number of product terms are needed in each SOP expression.

THE GAL 16V8 (GENERIC ARRAY LOGIC) The GAL 16V8, introduced by Lattice Semiconductor, has an architecture that is very similar to the PAL devices described in the previous section. Standard, low-density PALs are one-time programmable. The GAL chip, on the other hand,uses an EEPROM array to control the programmable connections to the AND matrix, allowing them to be erased and reprogrammed at least 100 times. In addition to the AND and OR gates used to produce the sum of product functions, the GAL 16V8 contains optional flip-flops for register and counter applications, tristate buffers for the outputs, and control multiplexers used to select the various modes of operation. Consequently, it can be used as a generic, pin-compatible replacement for most PAL devices. Specific locations in the memory array are designated to control the various programmable connections in the chip. Fortunately, it is not necessary to delve into the addresses of each bit location in the matrix. The programming software takes care of these details in a user-friendly manner. The major components of the GAL devices are the input term matrix; the AND gates, which generate the products of input terms; and the output logic macrocells (OLMCs). The flexibility of the GAL 16V8 lies in its programmable output logic macrocell. Eight different products (outputs of AND gates) are applied as inputs to each of the eight output logic macrocells. Actually, the GAL 16V8 has only three different modes of operaton : (1) simple mode, which is used to implement simple SOP combinational logic without tristate outputs; (2) complex mode, which implements SOP combinational logic with tristate outputs that are enabled by an AND product expression; and (3) registered mode, which allows individual OLMCs to operate in a combinational configuration with tristate outputs (similar to the complex mode) or in a synchronous mode with clocked D FFs synchronized to a common clock signal. The GAL 16V8 is an inexpensive and versatile PLD chip,but what if a design requires more hardware resources than is contained in the 16V8? It may be possible to split the design into smaller blocks that can be implemented in several 16V8 chips. Fortunately, there are other members of the GAL family to choose from. Another popular, general-purpose PLD is the GAL 22V10. This device has 10 output pins and 12 input pins in an architecture that is similar but not identical to the GAL 16V8.Groups of product terms are logically summed with an OR gate, which feeds an OLMC. Unlike the 16V8, however, each OR gate in the 22V10 does not combine the same number of product terms.The number of terms ranges from eight all the way up to 16.To take advantage of the extra terms,you must assign the larger Boolean expressions to the correct output pin.The D flip-flops contained in the OLMCs also have asynchronous reset and synchronous preset capabilities. A newer version of the 22V10—the ispGAL 22V10—is now available.This device is said to be insystem programmable (ISP).Instead of requiring a programmer,as is needed to program PALs and standard GAL chips, a cable from the PC is connected directly to a special set of pins on the ISP device to do the programming.

**THE ALTERA EPM7128S CPLD:** An EEPROM-based device in the Altera MAX7000S CPLD family. This device is found on several educational development boards, including the Altera UP2,DeVry eSOC, and RSR PLDT-2.The major structures in the MAX7000S are the logic array blocks (LABs) and the programmable interconnect array (PIA). A LAB contains a set of 16 macrocells and looks very similar to a single SPLD device. Each macrocell consists of a programmable AND/OR circuit and a programmable register (flip-flop). The macrocells in a single LAB can share logic resources such as common product terms or unused AND gates. The number of macrocells contained in one of the MAX7000S family devices depends on the part number. As shown in Table 13-2,the EPM7128S has 128 macrocells arranged in eight LABs. Logic signals are routed between LABs via the PIA. The PIA is a global bus that connects any signal source to any destination within the device. All inputs to the MAX7000S device and all macrocell outputs feed the PIA. Up to 36 signals can feed each LAB from the PIA. Only signals needed to produce the required functions for any LAB are fed into that LAB.