Overview of some common topics

1. Artificial Intelligence (AI) and Machine Learning (ML)

Broadly it is the application of technology so that computers can perform tasks that resemble human cognitive function. Thus machines are enabled to imitate human behaviour. Applications of various programs enable computer to analyse lot of data and then make predictions based on the detected patterns. Underlying datasets must be large and updated Algorithms, the set of instructions to the machines, are necessary for continuous updated of input data.

Machine Learning is the capability of the machine to imitate human's intelligent behavior. This is a sub-field of Artificial Intelligence AI applications require large and current data bases for meaningful future predictions.

2. Augmented Reality (AR)

Augmented reality is defined as virtual enhancements integrated with real world objects. These enhancements could be in the form a text, filter, and audio or in a virtual mode. One example is how the customer's home would like when applied with a particular shade of paint given lighting and other objects in the room.

The primary benefit of AR is that it manages to blend digital and threedimensional (3D) components with an individual's perception of the real world. Immersive product presentation is another benefit.

3. Consumer Behavior

It is imperative to understand the consumer beliefs, feelings, perceptions, and above all experiences about the product, service and interactions with people in the enterprise. Such beliefs and experiences influence production, stocking, distribution and financing plans.

Market research is one tool for this purpose. This often involves finding out target audience for a particular product including the gender, age, and socioeconomic status of the typical buyer, and analysis of data about the consumer behaviors in the past for determining the likely outcome in future. This enables delivery of right products and services at right mode at the right place.

Several approaches are needed to influence customer/consumer behaviors. Marketing messages through branding coupled with principles of reciprocity and commitment are used for this purpose.

4. Crowd-funding

As the name suggests, crowds fund the business venture or a particular plan through small amounts. Easy to use processes and tools such as social media and dedicated website are used to raise the needed money. These could be in the form of capital, loans or even donations. Often individuals raise funds to meet specific needs such as medical emergencies or natural disasters.

5. Digital Transformation and Digital Strategies

This is the process of converting products and processes from physical to digital forms to enable faster processing consequent on better, more concise storage, movement of data and application of mathematical tools.

Digital transformation spans over business model and organisation besides processes.

Digital Strategies include Data Analytics, Internet of Things, Artificial Intelligence and Machine Learning.

6. Environment, Society and Governance (ESG)

ESG is defined as a collective term for a business's impact on the environment and society as well as how robust and transparent its governance is in terms of company leadership, executive pay, audits, internal controls, and shareholder rights.

Environment actions require working towards zero carbon emissions in fuel consumption, zero waste and recycling, among other actions, throughout its processes and supply chain.

Societal actions include orientation towards safety, health, training and welbeing in general of the society with policies which ensure inclusiveness and diversity in both corporate and non-corporate entities.

Governance in this context refers to the system of management and oversight which ensures ethical & transparent decision-making, reporting and logistics of running a business. GE's governance framework document is a good guide for oversight of the Board and management consistent with its obligations to stakeholders.

7. Fiscal Policy

Fiscal policy of a Government comprises of its revenue and expenditure plans for the current and immediate future periods. Income plans include taxation on product, services, enterprises, individuals and incentives for investment. Similarly, Expenditure plans include spending on infrastructure, medical and social services and special actions like Cost of Living help.

Fiscal policy measures affect the level and growth of aggregate demand, output and jobs. Fiscal policy is also used to change the pattern of spending on goods and services in an economy.

8. Inflation

Inflation refers to the general increase in price levels. In economic sense, the inflation is caused by increase in the supply of money and credit faster than the increases on supply side and productivity in the country. There are other factors also like wars and natural disasters which cause disruptions in the supply chain. Demand for the goods and services is also affected by the taxation policies of the government. Inflation is expressed in terms like core inflation and headline inflation.

Core inflation is the change in the costs of goods and services, but it does not include those from the food and energy sectors. This measure of inflation excludes these items because their prices are much more volatile. It is most often calculated using the consumer price index (CPI). Core inflation is considered an indicator of underlying long-term inflation.

Headline inflation is the change in the cost of goods and services of all items in the economy. It is often related to the shifts in the cost of living. It is not adjusted for seasonality or volatility of items which are removed in core inflation i.e. Consumer Price Index (CPI). It is also known as top line inflation. Comparisons are made on annualized basis.

Inflation is managed through a series of fiscal and monetary policies of the Government.

9. Internal Controls, Internal Audit and External Audit

Internal controls are designed to aid the companies install checks and balances in the system to avoid misuse of company assets and resources on the one hand and assist compliance with statutory rules and regulations.

Internal audit is designed to ensure accuracy, and law complied, financial statements which are then put to statutory auditors. On the other hand internal audit helps the company in achieving fraud free and ethical management.

External auditors provide an independent opinion about the state of affairs as to whether the financial statements provide a true and fair view of operations, are free from misstatements, are fraud free, and meet accounting standards and legal requirements.

10. Knowledge, Financial and Social Portfolios (KFSP)

Measuring and Monitoring KFSP can help balanced progression to higher standard of living.

Knowledge portfolio consists of skills and ability to apply and transfer the same. Its value increases with continuous upgradations.

Financial portfolio comprises of both short and long term investments. Its value increases with application of sound evaluating and opportunity sensing abilities.

Both Quantitative and Qualitative factors are to be considered. Examples of Quantitative factors include trends in past returns and projections for future considering competition & market share, growth rate & opportunities in the horizon, profitability, debt/equity ratios, industry structure and Govt's policies. Qualitative factors include brand value, strengths and weaknesses of operations and its management.

Social portfolio comprises of network of well-wishers, facilities and personal qualities that help one maintain quality of life including good health and peaceful living. This is a subjective factor but one can assign a number to monitor one's progress in life.

11. Management of Self

One needs to set clearly the key milestones in life and prioritise actions with self-analysis of strength and weaknesses. Improving emotional intelligence helps along with scaling up of ambitions for career growth, and be a better person.

Healthy dose of exercise including walking and cycling, Skills needed to be happy and relaxed include singing, music, dancing and playing some outdoor games, Computer and Communications Literacy is essential.

12. Monetary Policy

This is one of the policies to manage inflation in addition to investment and growth by controlling the money supply (cash and credits included) in the economy. The interest rates on loans and mortgages and savings accounts along with requirements of banks for maintaining cash reserves are used as tools. Generally low interest rates lead to higher disposable incomes with resultant growth and investments.

13. QCD₁IP for Performance Improvement

One of the key requirements in any career is <u>Personal and Organisational</u> <u>Excellence</u>. For this purpose, first thing is to <u>focus on QCD-IP</u>. Ask yourself,

- 1. Was the Quality up last week, how it can go up every week,
- 2. Did I contribute to bringing down the <u>Costs</u>? For example, by identifying and eliminating the waste and inefficiencies.
- 3. Could I improve the Delivery/Speed of my own work and that of the Organisation.
- 4. What <u>Intellectual capital</u> I can create in terms of Improvements, Inventions and Innovations.
- 5. How I can contribute to improving the level of <u>Pride</u> enjoyed by all the Stakeholders of the Organisation. How can I contribute to protecting the <u>Planet</u> from the harmful impact of some business activities? How can I give and get the best of potential in <u>People</u>?

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1. Quality and Quantity (Q)

Quality and Quantity, in this context, implies delivery of product or service to meet customer's perceived needs, and should be free from any defects. It should conform to specifications, specified or implied, and be fit for the purpose.

Improvement to world class quality requires a Mindset that pursues excellence, and does not compromise on passion for achieving world class standards. Training on use of various tools and techniques are imparted to all the members of the team. First time right and every time right is one of the key notions. Defect free operations to world class levels of physical assets and continuous upscaling of operating standards helps in achieving world class levels of quality and quantity.

2. Costs (C)

Enterprises incur costs in using inputs like men, material, machines, methods and services for the production, distribution and sale of goods. Key task is to identify and eliminate non value adding costs including waste at every stage. Standard costing based on value analysis is one of the tools used to control costs. Costs are often classified as Fixed and Variable costs in relation to production volumes. Continuous reduction in unit costs through substitution of cheaper inputs, automation and improving productivity during operations is one of the main objectives for any business.

3. Delivery (D) and Speed (S)

Deliveries from any work team must meet On-Time-In-Full (OTIF) requirement as stipulated by internal or external customers in any business. Supply chains and processing has to be organized accordingly. This also implies enhancing Speed in whatever people do by making full use of mental & physical abilities, equipment and technology. Continuous improvement in turnaround times is necessary.

4. Intellectual Capital and its Management (I)

Human mind is capable of forming intangible objects in mind that can be used in economies for gain to the owner. These primarily comprise of Inventions, Innovations and Improvements.

Management of Intellectual Capital requires a Culture that facilitates and promotes contribution from employees and non-employees alike. Learning from mistakes is allowed so also sharing profits from such capital. Collection of ideas, in-depth analysis and validation of selected ideas is part of the process for promoting and managing the Intellectual capital. Celebrating the success and rewards are essential ingredient of the process.

5. Planet, People Potential and Pride (P)

One of the key focus areas is Planet, how best it can be protected from harmful effects of a business. Limiting global warming to 1.5°C requires transition to net zero emissions. Air, water and noise pollution, disposal of hazardous substances, damage to forests are other areas needing business's attention, among other measures.

People are the most important assets in our planet, and businesses must attempt making full use of potential of every person in the supply chain.

Business will be more sustainable if at the end all the stakeholders including employees, suppliers and customers take Pride in being part of the business. This leads to unflinching commitment from all the stakeholders for the success of the business.

14. Sustainability and Inclusive Growth

Each business should work towards achieving net zero emissions. Decarbonisation is the key while keeping societal needs in mind. These needs include protecting the natural resources while pursuing profits and achieving growth. The routes will be different for each business for making it carbon neutral.

Above cannot be achieved without appropriate innovations in products, manufacturing and delivery processes, and supply chain.

Sustainability also requires honesty and ethical behaviour of the people in organisation and supply chain.

Inclusive growth means growth for all sections of society and regions. Equal opportunity for all without any distinction based on colour or sex, among other criteria.

At National level, inclusive growth involves creating macroeconomic stability, investing in human capital and physical infrastructure besides providing enabling environment for improving competitiveness and attracting investment.

15. Value Engineering

Value Engineering attempts to challenge current make up of costs for retaining only those functions that add value in the end product or process. In other words, a systematic analysis of all Inputs and Processes for determining their role in the value of the final product or service. Inputs include Men, Material, Machines and Methods. Evaluation of each end product's role in adding value to customer's business is often undertaken with recommendations for addition/ deletion/ modification to current portfolio of products and services.

16. Virtual Reality and Augmented Reality

Virtual Reality (VR) is a simulated 3D environment to enable the user to explore and interact with virtual surrounding. It generally approximates the real environment. There are three main types of VR viz non-immersive, immersive and fully immersive. Non immersive is generally computer based and in a fully immersive type, the use of 3D technology enables the user to be fully involved. The user experiences the 3D world.

Augmented reality enhances real world experience with superimposed computer generated information.

Both use specially designed headsets.