



## **BAHRIA UNIVERSITY (KARACHI CAMPUS)**

### **Engineering Management (MGT- 423)**

Assignment 02

Spring 2024

Class: BSE 4A

Course Instructor: Asim Iqbal

Assignment Date: 27 Apr 2024

Student Name: ABDULLAH

Shift: Morning

Due Date: 04 May 2024

Marks: 05 Points

Registration #: 81962

**Question:** Answer the following questions. You may make use of any case study discussed in class or that you have studied with reference:

a) **Why is it so important for an engineer today to have knowledge of Research and Development?**

**Answer:**

It allows them to discover new knowledge, it allows engineers to improve upon existing technologies. Through research, engineers can learn about new theories, principles, and ideas that can inform the development of new technologies and solutions. By studying and analyzing current systems, engineers can identify areas where improvements can be made. For example, a civil engineer may conduct research on new materials that can be used in bridge construction. This research can lead to the development of stronger, more durable bridges that can withstand extreme weather conditions and heavy traffic.

b) **How do you manage the R&D process to align with strategic business goals?**

**Answer:**

We can align R&D with strategic goals by defining clear objectives, fostering cross-functional collaboration, prioritizing projects based on impact and feasibility, allocating resources wisely, monitoring progress with KPIs, staying adaptable, and maintaining open communication for feedback. This ensures R&D efforts contribute effectively to business success and innovation.

c) **What does it mean to be Corporate Research?**

**Answer:**

Corporate research typically refers to the research activities conducted within a company or organization to support its strategic goals, enhance competitiveness, and drive innovation. It involves systematic investigation, analysis, and experimentation aimed at developing new products, improving existing processes, exploring market opportunities, understanding consumer needs, and addressing industry challenges. Corporate research is often conducted by dedicated R&D teams or departments within

the organization and is closely aligned with the company's overall business objectives and long-term vision.

**d) Why do companies have Corporate Research Functions?**

**Answer:**

Companies establish corporate research functions to drive innovation, understand markets, reduce risks, gain competitive advantages, ensure regulatory compliance, facilitate long-term planning, and foster continuous improvement. Research activities support product development, market analysis, risk assessment, and strategic decision-making. They lead to new technologies, processes, and knowledge that enhance competitiveness and customer value. Corporate research enables companies to adapt, grow, and thrive in dynamic business environments by leveraging data-driven insights and staying ahead of industry trends.

**e) Difference between Technical Personnel and Business Personnel?**

**Answer:**

Technical personnel specialize in technical tasks like product development and data analysis, leveraging STEM skills. Business personnel focus on strategic management, sales, marketing, finance, and operations, utilizing leadership and decision-making abilities. Technical roles involve creating and maintaining products, while business roles encompass revenue generation, resource management, and strategic planning. Collaboration between technical and business teams is vital for organizational success and innovation.