

Roll No. _____

University of Pune
Department of Management Sciences (PUMBA)
Executive MBA

2nd Year External Exam May - 2013

404(D) STRATEGIC MANUFACTURING AND OPERATIONS MANAGEMENT

Time: 2.30 hrs

Marks: 50

Instructions to Students:

Note: Q1 is compulsory;

answer any 4 from Q2 - Q7:

Total 5 questions to be answered.

All Questions carry equal marks

Q1 Read the following situation and answer the questions which follow.

“Visualize This” (VT) is a small start-up company specializing in virtual reality and computer visualizations. VT, founded by Prof. P.Gupta, is located in a university town and staffed by brightest of his students employs cutting edge technology. Facilities include 14 high-end computer work-stations adjacent to a computer aided virtual environment (CAVE) and a small office. Conference room, reception and social areas are shared with other offices in the building.

VT started with partnering “Salvania” (a Swedish firm) to create virtual reality environments for medical & industrial design – VT would develop the software for each application; create a visual database supported with engineering/medical data and run design sessions for the clients in the CAVE. Salvania provided the capital, generated the clients/orders and handled 'business end' of the operations. In the first 2 years, VT completed four projects and with each project VT advanced its skills and capabilities, developing customized tools to help clients design intricate products. Though clients were pleased, there was little chance of repeat interactions/orders for several years.

Unfortunately, Slavania went bankrupt and dissolved the partnership. VT was able to keep its workstations (whose resale/salvage value was low), but gave up its rights to the CAVE and retrenched/ furloughed all except 3 employees. To stay alive, VT needed new clients and a steady stream of income. Prof.Gupta studied the market and came up with the options:

- 1. Designing computer-based training sessions for bank-tellers of an international finance corporation*
- 2. Conducting software certification for sales staff of large software vendors*
- 3. Designing virtual reality tours through history for a major museum*
- 4. Developing web-based virtual models for a women’s clothing retailer*
- 5. Creating virtual catalogues in which customers can enlarge, rotate and investigate or dissect a product online.*

VT team began analyzing the advantages and disadvantages of each opportunity.

Help VT team with this exercise:

- a) How can Prof. Gupta align his goals for the organization with the needs of the market place?
- b) Considering the mix of equipment, personnel, length, scope and potential for each option - which project(s) would you recommend to VT? Why?

Q2 Explain, with examples, the concept of 'mass customization' and its various forms. Do you think that mass customization is a necessity under current global situation – why or why not?

Q3 Explain, with examples, 'lean manufacturing'. What are the essential requirements for creating 'lean' operations?

Q4 What are the demands on a "Chief Operating Officer" (COO) and his/her key result area? What 'levers' and/or resources can the person use to deliver results?

Q5 Do you agree (Yes/No) with the statement: "*Central to the concept of Operations strategy is the concepts of Focus and attendant Trade-offs*"? Explain your stand.

Q6 Explain the terms 'Waste' and 'Value' as relevant for Operations. How can we influence these to improve Operations?

Q7 Write short explanatory notes on any two

- a) The 'loss function' (Taguchi)
- b) Impact of 'lot size' on capacity
- c) Benefits of JIT system
- d) Alternatives for a manufacturing set-up.