Module Name: Telecommunications Business Environment

Module Acronym: TBE

Module Manager: Dr Clive Poole

Course Summary:
The objectives of the TBE module are for students to gain an appreciation of the external environment within which a telecommunications business operates and how a company can successfully conduct business in this environment. Two perspectives are therefore taken: scene setting descriptions of the macro-economic and regulatory environment of today (focusing on the UK, but with a global view also); coupled with an introduction to the management of a telecommunications business.

Learning Outcomes:
At the end of the course, students should be able to understand:

- Value Chain analysis, the detailed ICT Value Chain and the position of telecommunications operators within it;
- The Macro-economic environment including regulation, global trends and changing customer needs/expectations;
- How to develop winning strategies in this environment
- The Key elements of successful trading, including strategy development, customer service, technology developments and exploitation and portfolio and product development
- The key elements of successful product and portfolio management and how to apply them in a changing world
- How to use systems and technological developments to meet customer needs and improve customer service
- Risk evaluation and mitigating strategies

Intended Learning Outcomes

On completion of this course, students should be able to:

- apply a knowledge of the commercial, financial, regulatory issues surrounding modern telecommunications network deployment and operations, to the specific commercial challenges facing a global telecommunications company.
• build a portfolio of telecommunications services to achieve a particular business objective.
• prepare a basic business case for deployment of a typical fixed or mobile telecommunications network.
• identify and understand the regulatory issues surrounding the roll-out of new services and be able to calculate the impact of regulatory constraints on overall business strategy.
• prepare a marketing plan for a hypothetical new telecommunications service based on a comprehensive understanding of the basic principles of marketing as applied to the telecommunications industry.
• prepare a set of basic financial statements (Balance sheet, income statement and cash flow statement) for a hypothetical telecommunications company from a given set of raw data.
• calculate and interpret a set of financial ratios for a hypothetical telecommunications company from a given set of raw data.
• calculate the NPV, IRR and break even point for a typical telecommunications infrastructure project from a given set of raw data.
• analyse the capital structure of a typical telecommunications company and understand the implications of different funding models (debt versus equity) for overall business strategy. Be able to calculate the Weighted Average Cost of Capital (WACC) for a given firm from a set of data, and be able to comment on it’s appropriateness to the firm in question.

Module Content

1) Introduction to Telecommunications & ICT Business

Scene setting for today’s business: covering the types of network operator and the range of competitors. The concept of ICT is defined, together with the convergence issues. This set of lectures will position the interaction of all the factors affecting an operator: macro-economic, the market place, government policy, regulation, competition, legacy aspects and technology changes, customer expectation and globalisation. The dotcom bubble burst will be examined for lessons for today’s business environment.

2) Business Strategic Drivers.

The concept of strategy is introduced and applied to a network operator (fixed, mobile, voice & data). The various strategy analysis tools (PEST, PUV, Porters 5 Forces, and SWOT) are introduced and example strategies are discussed.

3) The Regulatory and Legal Scene
The UK, and European legal and regulatory framework is presented, showing the constraints and opportunities offered to incumbent and other operators and service providers. Apart from interconnect issues, the Telecommunications Strategic Review is described, as is the role of OFCOM in regulating in a converged world.

4) Review of the Industry

This section presents a quantified view of the industry from a World-wide perspective. The major cost, revenue, demand, service and technology trends are analysed.

5) Infrastructure Economics

Description of the cost dynamics of a telecommunications infrastructure, covering access and core – fundamental to all networks (including railways, airlines, electricity supply, etc), fixed and variable cost, effect of volume on unit cost, cost and revenue apportionment, and long-run costs.

6) Product Management & Marketing

An overview of the principles of marketing and product management is presented, together with recent practical examples. The scope includes: market segmentation, pricing, promotion, sales strategies, customer-relationship management, billing issues and product/service development. In particular, the product life cycle is used as a structure to consider all aspects of product/service management. Although these principles are generic, the examples given will relate specifically to the telecommunications industry.

7) Business Cases

The key aspects of a business case are introduced, covering its role in corporate governance, the essential content, the financial case and supporting evidence.

8) Financial Management

The role of financial management in any business is described, with detailed application to the telecommunications network operators’ functions. Students will gain an understanding of financial statements and how to read them, as well as the principles of amortisation and
depreciation, *ebitda*, profit, cash flow, cost of capital, share price dynamics and dividend policy.

**Assessment:**
At the end of the module students will be set an examined assignment designed to assess their understanding of the drivers and forces affecting a network operator and how it can successfully compete in today’s market place.

**Tutorials/Workshops:**
Two hour tutorial to address the main learning points of the module and to prepare the students for their assignment.

**Guest Speakers:**
Several guest speakers will be invited to give the students the benefit of their experience on the practical aspects of the telecommunications business.