

GUILDHALL COLLEGE



Assignment

Module:	Operations and Technology Management
Programme:	PGD IBM (Level 1 RMA/Resit)
Awarding body:	University of Gloucestershire
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Word Count:	1,500 – 2,000 words, excluding relevant appendices and diagrams

OPERATIONS and TECHNOLOGY MANAGEMENT – INDIVIDUAL ASSIGNMENT

Below is a case study 'Dresding Medical (DM)'. This case illustrates an operations strategy dilemma which occurs in most companies as it enters a related but different market.

The issue is how to think through the implications of expanding into consumer products as this affect the operations resources within the company.

TASK

Prepare a critical report which identifies five operational performance objectives and analyses how expanding into consumer products will affect the operational resources within the organisation.

Your analysis should involve:

- a. Understanding how the company satisfies its current markets.
- b. Understanding the requirements of the new markets and,
- c. Understanding the implications for the operations function of serving both markets.
- d. Draw a polar diagram illustrating the relative importance of the performance objectives for the current and new products.
- e. How do you make the changes to the operations which the new product will require?
- f. Finally evaluate how the strategic decision areas of the two different products are likely to be different and draw operations strategy matrix for the current product.

Your Report should also adopt the academic conventions expected at Masters Level which requires you to:

- (a) Read widely to incorporate theories and concepts.
- (b) Critically evaluate and Synthesise these theories and concepts to develop a coherent argument and demonstrate that all business decisions have a trade off.
- (c) Acknowledge your reading and arguments with citations and list these citations as References at the end of your Report using Harvard Author Date conventions.

Dresding Medical:

Since founding her company over ten years ago, Dr. Laura Dresding had never been either so anxious or so enthusiastic about the future of Dresding Medical (DM). The company had enjoyed considerable success, both financial and in terms of market share by designing, manufacturing and supplying a range of medical equipment to hospitals and clinics throughout the USA. Starting with cardiovascular devices, their range expanded to include neurological stimulators and monitoring diagnostic devices.

'Success has come largely from our research and development culture. Although around 50 percent of our total manufacturing is done in-house, our core competence is an ability to understand the needs of clinicians and translate those into our products. We were among the first to expand the range and functionality of this type of equipment and integrate it with sophisticated diagnostics software. Admittedly our products tend to be relatively highly priced and we are coming under some cost pressures, but because of our technical excellence and our willingness to modify equipment to individual customer needs, we avoid too much pressure on our prices'. DM's operations planning and control systems had been relatively informal. A team of specialist sales technicians discussed individual clinical needs with customers and wrote a 'product specification' for manufacturing to work to. Around 70 per cent of all orders involved some form of customisation from standard 'base models'.

Manufacturing would normally take around three months from receiving the specification to completing assembly. This was not usually a problem for most customers; they were more interested in equipment being delivered on time rather than immediate availability. The manufacturing department was largely concerned with assembling, integrating and (most importantly) testing the equipment. Most components were made by suppliers who had been doing business with DM for some years and were capable of accommodating their strict quality requirements and their need to customise components. Laura Dresding knew the strengths and weaknesses of her manufacturing operations.

'Manufacturing is really a large laboratory. It is important to maintain that laboratory-like culture because it helps us to maintain our superiority in leading-edge product technology and our ability to customise products. It also means that we can call upon our technicians to pull out all the stops in order to maintain delivery promises. However, I'm not sure how manufacturing, or indeed the rest of the company, will deal with the new markets and products which we are getting into'.

Dr. Dresding was referring to a new generation of 'small black box' products which the company had developed. These were significantly smaller and smarter devices which were sufficiently portable to be attached to patients or even implanted. For example, a cardiac defibrillator which, when necessary, can jolt the heart into maintaining a healthy rhythm and diagnose how and why the heart has gone wrong. Other products included drug delivery systems and neurological implants. All these new products had two things in common. First, they took advantage of sophisticated solid-state electronics and second, they could be promoted directly to consumers as well as to hospitals and clinics. Dr. Dresding was under no illusions about the significance of these changes.

'On the market side we have to persuade health care and insurance companies to encourage these new devices. They may be expensive in the short term but they can save money in the long term. We are hoping that customer pressure will act in our favour. What is more problematic is our ability to cope with these new products and the new market they are addressing. We are moving towards being a consumer company, making and delivering a higher volume of more standardised products where the underlying technology is changing fast.

We must become more agile in our product development. A new base model currently takes over three years to develop; we cannot afford to develop the new products in any more than 12 months. Also, for the first time, we need some kind of logistics capability. I'm not sure whether we should deliver products ourselves or subcontract this. Manufacturing faces a similar dilemma. On one hand it is important to maintain control over production to ensure high quality and reliability; on the other hand, investing in the process technology to make the products will be very expensive.

There are subcontractors who could manufacture the products for us, they have experience in this kind of manufacturing but not in maintaining the levels of quality we will require. We will also have to develop a 'demand fulfilment' capability which will be able to deliver products at short notice. It is unlikely that customers would be willing to wait the three months our current customers tolerate. Nor are we sure of how demand might grow. I'm confident that growth will be fast but we will have to have sufficient capacity in place not to disappoint our new customers. We must develop a clear understanding of the new capabilities which we will have to develop if we are to take advantage of this wonderful market opportunity. Who knows, it could become the first step in transforming the whole company. I see no reason why, eventually, we should not move into running health management clinics ourselves. We are already developing technologies that could monitor patients at a distance. We can even re-programme implanted devices, without surgical intervention, based on our diagnostic systems. I know all these actual and potential changes suggest that we need to develop separate types of operation to service the different markets, but I really am reluctant to destroy the culture of technical excellence we have built up with our current operation.'

Assessment Criteria

Marks to be allocated	Grade awarded	Criteria
20%		Focus: Does the report address the case in a meaningful manner meeting the objectives of identifying and evaluating a range of tenable options to guide the company's future strategic direction?
20%		Synthesis: Does the report bring relevant models, analytical frameworks and application of these tools to bear on the task in a significant manner?
20%		Soundness: Does the report demonstrate a comprehensive understanding of the theory and evidence used to support the conclusions and recommendations?
20%		Originality and creativity: Does the report indicate original and creative thinking in the understanding of the 'strategic situation' and generation of solutions to actual and potential strategic problems and issues?
20%		Mechanical soundness: Is the report well written, well presented, spell checked, grammatically sound and appropriately referenced?