Activity 18.2 (page 347): Cross elasticity

1 Calculate the cross elasticity of demand for both Blu-ray films and Philips DVD players following the change in price of Sony Blu-ray players. [3]

\[ \text{CPED} = \frac{\text{Percentage change in demand for product A}}{\text{Percentage change in price of Product B}} \]

Philips DVD:

\[ \text{CPED} = \frac{-10}{-10} = 1 \]

Blu-ray films:

\[ \text{CPED} = \frac{20}{-10} = -2 \]

2 Comment on your results. [4]

Philips DVD:
- The value for cross price elasticity of demand is positive. This indicates that the two products are substitutes for each other. Thus, as the price of Blu-ray DVD players reduces, the demand for Philips DVD players also falls.
- In this case, the change in demand is proportional to the change in price. CPED has unit elasticity.

Blu-ray Films
- The value for cross price elasticity is negative. This indicates that the two products are complements.
- In this case the change in demand is more than proportionate to the change in price. The demand for Blu-ray films is elastic with respect to the price of Blu-ray players.

Activity 18.3 (page 350): T and T Clothing – does the strategy fit the objectives?

1 Why had mail order been an effective means of distributing T and T clothing in previous years? [4]
Mail order was an effective means of distributing T and T Clothing as it helped offer competitive and low prices. As mail order sells direct to the consumer, it avoids the use of intermediaries; consequently, the clothes can be offered at a low price.

2 Evaluate whether the marketing strategy proposed by Joe for the new range of clothing lacks focus on his objective for the business. [8]

Answers may include comment on the following:

Definition of a marketing strategy: an integrated marketing mix compatible with the marketing objectives and marketing budget set by the firm.

Joe wishes the company to be ‘one of the biggest and most fashionable clothing businesses in the country’. His marketing strategy for achieving this does not appear to be consistent with the objective:

- Maintaining a low price point in the market – fashionable clothes are more likely to be marketed at a much higher price point to project an image of exclusivity.
- Limited promotional activity – Joe sees the mail-order catalogue as the central tactic of a promotional strategy. To support the position of the clothes in the market, it may be necessary to use persuasive promotional techniques in e.g. glossy fashion magazines.
- Selling direct to the consumer via mail order / the internet – if customers are purchasing expensive clothing, they may expect to be able to try it on in the surroundings of a leading retailer.

Evaluation may consider:
Evaluation is likely to observe that the new range of clothing is not well supported by the marketing strategy that Joe wishes to use.

3 Discuss a marketing strategy that you consider to be appropriate for the sale of the new clothing ranges in your own country. Justify the strategy chosen. [16]

Any reasonable answer.

The marketing strategy should present a coherent application of marketing tactics that bring together the 4Ps in a way that meets stated marketing objectives within a defined marketing budget. The strategy should make reference to the conditions present in the student’s country.

A strategy for the UK market might involve:

Marketing objective – establish the clothing brand in the market with an aim to achieving sales growth of 20% per annum during the first two years.
Product – create fashionable high-quality clothing aimed at the 30-something female market. The product would need to be branded under a new name to avoid being associated with T and T Clothing’s cheaper products.
Price – a mid-price range competing with established brands such as Zara, H&M and Gap.

Place – distribute through upmarket independent retail outlets.

Promotion –
• a dedicated website for the brand
• above-the-line advertising in women's/fashion magazines, appealing to the target market, such as Elle
• fashion shows to generate publicity
• personal selling in order to encourage retailers to adopt the brand.

Evaluation may consider:
The precise nature of the marketing strategy suggested will depend on factors such as:
• the income of the country
• competition in different segments of the market
• cultural differences that may determine how fashion clothing is promoted.

Activity 18.4 (page 353): Nestlé drops smoothie drinks after four months

1 Explain why, despite considerable research spending and promotional spending, the Boosted Smoothie product was not a success. [8]

A number of reasons are identified in the text:
• Economic problems undermined demand within this segment of the drinks market. Consumers will have traded down from the more expensive smoothies to regular juice drinks.
• It is a very competitive market with well-established brands, such as Innocent. It was therefore difficult for Nestlé's new product to build sufficient sales.
• Nestlé is a large corporation and this might make its researchers more distant from the market. Innocent is a much smaller organisation and, therefore, closer to its customers and consumers.
• Packaging was not appropriate. The lack of trial-sized bottles could have deterred consumers from trying the drink.

2 Recommend a suitable and detailed marketing strategy for this product in your own country. You should consider carefully Nestlé's objectives and the wider environment within which it will operate in your country. [12]

Any reasonable answer.

A marketing strategy should bring together an integrated marketing mix with a suitable marketing budget in order to meet clear marketing objectives. Answers should reflect the particular conditions within the country.

Answers may comment on:
• Marketing objective – is the objective to rapidly build market share?
• Price – should a penetration-pricing strategy or market skimming be used? If there is limited competition, then market skimming may be appropriate. If there are already established brands, such as Innocent, then penetration pricing may be more appropriate. Price will also be affected by the extent to which Boosted Smoothies have a unique selling point, the marketing objective that Nestlé has set and income levels within the country.

• Product – consumer attitudes toward health and farming methods will influence the content of the product. For example, market growth in organic sales might suggest that the Boosted Smoothie should use organic produce; however, this will add to production costs.

• Promotion – should Nestlé focus on below-the-line or above-the-line promotion? If Nestlé wishes to appeal to a mass market, then expensive television commercials to push the brand may be required. Free samples in supermarkets would support a mass-market approach. Advertising in health magazines would target the likely market segment for the smoothie. Below-the-line promotions, such as competitions and coupons, could encourage initial take-up of the product.

• Place – securing distribution outlets will be important if Nestlé aims to build significant market share. Retailers may need to be offered discounts to encourage stocking. If the objective is to focus on a niche-marketing strategy, then Nestlé may focus on independent retailers, e.g. health-food shops.

• Marketing budget – this will need to be sufficient to meet the marketing objectives. A mass-marketing approach using above-the-line media will require substantial financial backing. A niche-marketing strategy will require a smaller budget.

3 Would you advise Nestlé, and other global food businesses, to continue to spend money on new product developments? Explain your answer. [12]

Yes:
• New product development can lead to gaining a competitive advantage. There are many examples of successful and profitable developments, e.g. instant coffee.
• It may differentiate products from those of competitors and, therefore, gain greater control over pricing.
• New ideas can add value, e.g. teabags.
• Global food businesses, such as Nestlé, have the resources to undertake product development.
• Food preferences change over time. Firms need to develop new products to satisfy consumer desire for trying new foods.

No:
• New product development can be expensive.
• It is risky – there is no guarantee that new products will be successful, e.g. Boosted Smoothie.
• Could resources be more effectively spent on marketing existing products?
4 Analyse why small teams of researchers are more likely to develop successful innovative products than when part of a much larger organisation. [8]

- Nestlé is a very large business organisation and if its research and development (R&D) is highly centralised, it will be remote from the consumers that Nestlé serves. Consequently, it may be out of touch with consumer needs.
- Currently the 5,000 scientists worldwide may be more focused on investigating what they can achieve with Nestlé’s vast resources than on anticipating and meeting consumer needs.
- Smaller innovation units which are independent of the larger organisation will hopefully deliver a number of benefits:
  - They will be closer to the market. Units could be established in different countries and thus are more likely to be aware of local/national developments in the market.
  - They will have greater freedom to ‘think entrepreneurially about new products’. Many commentators believe that small businesses are more responsive to the needs of the market and are more innovative.
  - Small research units may be more dynamic.
- It is the autonomy that the research units are given which will be crucial to their success. They must be free to make mistakes!

Activity 18.5 (page 355): Aircraft maker invests $200 million in new wings

1 Explain two ways in which the government has assisted this R&D project. [4]
- The government has directly contributed $15 million toward the $200 million cost of the R&D. This is 7.5% of the total cost. It is a subsidy and significantly reduces the cost of the research to Airbus.
- The government has provided legal security to Airbus for the development as the business should be able to patent the innovation. This will protect Airbus’s investment as it will prevent other firms copying the design.

2 Why has the government decided to offer financial support for this R&D project? [6]

A number of reasons are likely, including:
- To protect engineering and scientific jobs in Wales (an area of relative deprivation in the UK) – without the subsidy, Airbus may not undertake as much research. Protecting engineering and scientific jobs will ensure that the UK remains at the forefront of technological change.
- To improve the competitiveness of Airbus in the airline market – the R&D will help win contracts to supply aircraft to airlines around the world. This will generate export earnings for the UK and help protect the jobs of production workers at Airbus factories in the UK.
- The benefit to other industries of the development of new materials – although new materials will be patented, other firms will be able to pay royalties to Airbus for their use.
- Strategic industry – the aircraft industry may be viewed as a strategic industry within the UK and of national importance.
Is this research guaranteed to produce profitable innovative new products? Explain your answer. [10]

Successful R&D will create innovative products that give the business a competitive edge. For example, lighter wings developed by Airbus will make aircraft more fuel-efficient and, therefore, more attractive to airlines.

However, although research can produce innovative and profitable new products, it is not guaranteed to do so. There are a number of reasons why research may fail to generate the hoped-for benefits:

- The improvements made to a product may not be sufficient to give it a decisive competitive edge.
- The cost of the development may be too large and, therefore, the product is not able to recoup the cost.
- R&D often takes years. In dynamic consumer markets, consumer tastes may change and, therefore, the product is redundant.
- There may be no market for the product developed. For example, Concorde was a successful product development, but a marketing failure as airlines were not interested in purchasing a supersonic jet. If there is poor market research before undertaking research, the end product is less likely to succeed.
- There is no guarantee that R&D will even lead to the development of a working product. For example, expenditure on developing pharmaceuticals is particularly risky, as scientists may not be able to discover the cure for the disease they are investigating.
- Other firms are undertaking R&D at the same time and may find solutions first.
- A change in the economic climate may mean that there is no market for the new aircraft developed by Airbus.

Activity 18.6 – research activity.

Activity 18.7 (page 361): Sodhi’s sales forecast

1 Why has the shop owner used a five-period moving total? Is he right to do so? [4]

He has used a five-period moving total because there are daily variations in the demand at his convenience store. As his convenience store is only open Tuesday to Saturday, this was, therefore, the right thing to do.
2 Copy out the table above and complete the columns for the moving total, moving average and daily variation. [8]

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Tues</th>
<th>32</th>
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<tbody>
<tr>
<td>Weds</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thurs</td>
<td>40</td>
<td>43</td>
<td>−3</td>
<td>−3.35</td>
<td></td>
</tr>
<tr>
<td>Fri</td>
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<td>6</td>
<td>6.47</td>
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<tr>
<td>Sat</td>
<td>55</td>
<td>215</td>
<td>44.4</td>
<td>10.6</td>
<td>11.47</td>
</tr>
<tr>
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<td>220</td>
<td>44.8</td>
<td>−7.8</td>
</tr>
<tr>
<td>Weds</td>
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<td>222</td>
<td>45.4</td>
<td>−5.4</td>
<td>−6.33</td>
</tr>
<tr>
<td>Thurs</td>
<td>42</td>
<td>224</td>
<td>45.4</td>
<td>−3.4</td>
<td>−3.35</td>
</tr>
<tr>
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<td>53</td>
<td>227</td>
<td>46</td>
<td>7</td>
<td>6.47</td>
</tr>
<tr>
<td>Sat</td>
<td>55</td>
<td>227</td>
<td>46.8</td>
<td>8.2</td>
<td>11.47</td>
</tr>
<tr>
<td>Week 3</td>
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<td>230</td>
<td>48.4</td>
<td>−8.4</td>
</tr>
<tr>
<td>Weds</td>
<td>44</td>
<td>234</td>
<td>49.8</td>
<td>−5.8</td>
<td>−6.33</td>
</tr>
<tr>
<td>Thurs</td>
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<td>242</td>
<td>52.8</td>
<td>−2.8</td>
<td>−3.35</td>
</tr>
<tr>
<td>Fri</td>
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<td>249</td>
<td>53.6</td>
<td>6.4</td>
<td>6.47</td>
</tr>
<tr>
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<td>54.4</td>
<td>15.6</td>
<td>11.47</td>
</tr>
<tr>
<td>Week 4</td>
<td>Tues</td>
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<td>268</td>
<td>54.8</td>
<td>−10.8</td>
</tr>
<tr>
<td>Weds</td>
<td>48</td>
<td>272</td>
<td>55.8</td>
<td>−7.8</td>
<td>−6.33</td>
</tr>
<tr>
<td>Thurs</td>
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<td>274</td>
<td>56.2</td>
<td>−4.2</td>
<td>−3.35</td>
</tr>
<tr>
<td>Fri</td>
<td>65</td>
<td>279</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sat</td>
<td>72</td>
<td>281</td>
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</tbody>
</table>

3 Plot the moving-average (trend) line on a graph and extrapolate this to the fifth week. [6]
4 For each day that the shop is open, calculate the average daily variation in sales. [2]

Average daily variation for Tuesday = sum of variations for Tuesday + number of daily variations for Tuesday.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Thurs</td>
<td>−3.35</td>
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<tr>
<td>Fri</td>
<td>6.47</td>
</tr>
<tr>
<td>Sat</td>
<td>11.47</td>
</tr>
<tr>
<td>Tues</td>
<td>−9.00</td>
</tr>
<tr>
<td>Weds</td>
<td>−6.33</td>
</tr>
</tbody>
</table>

5 Use your graph, the extrapolation of the trend and the average daily variation in sales to forecast sales for each day of the fifth week. [2]

Forecast sales = trend sales + average daily variation

Tuesday = 58 − 9.00 = 49
Wednesday = 60 − 6.33 = 53.67
Thursday = 61 − 3.35 = 57.65
Friday = 62 + 6.47 = 68.47
Saturday = 63 + 11.47 = 74.47

6 Evaluate the usefulness of this method for forecasting the store's sales in ten months’ time. [8]

• It would not be possible to make a prediction about sales in ten months’ time based on the four weeks of data collected. There may be significant seasonal variations in demand that would need to be accounted for. Thus data would need to have been recorded over a much longer period of time in order to identify relevant trends.
• With sufficient data, predictions can be made for extended future time periods. This could help Sodhi plan for future cash-flow and stock requirements. However, the further into the future a prediction is made, the lower the probability of it proving accurate.
• Time-series analysis relies on past data and on the trends identified, continuing into the future. It is based on a process of extrapolation – making predictions using past data. Sales patterns, therefore, need to be stable for the technique to be useful. However, there are many factors that will change demand, that the analysis cannot account for. For example, the impact of a new competitor, a change in the economic climate, a change in consumer tastes.
• Time-series analysis needs to be used alongside other more qualitative methods to reduce the risk of inaccurate forecasts.

Revision case study 1 (page 362): How Unilever developed Culinesse

1 Unilever already had a wide range of cooking oils, butters and margarines. Explain why you think it was considered necessary to develop Culinesse. [6]
These are mature markets and, therefore, to boost Unilever's sales, it was necessary to develop a product with unique features to differentiate itself from the competition. Culinesse has the unique feature of not spitting at high cooking temperatures.

- As Unilever was developing a product highly differentiated from other products in the market, it might be possible to use a price-skimming strategy and make a high return on investment.
- Research may have identified a gap in the market.

2 Explain the importance of using a 'multi-disciplinary project team' for developing this new product. [6]

- A multi-disciplinary team will increase the chance of success. Research and development are expensive and risky, therefore it makes sense to ensure that the scientists communicate closely with marketing and other departments. This will increase the chances of developing a product that consumers want, as the marketing department will research consumer needs. Involving accountants would help ensure that the product could be produced at a suitable price to attract consumers. Operations managers would help ensure that the product can be produced with existing facilities.
- The approach would help reduce the development time for the product. There would be simultaneous execution of the different roles of the functional areas. Further, the functional areas are working together with a common goal rather than in competition with each other. The team would enable decisions to be made more quickly, as there would be less likelihood of the various departments rejecting the decisions of the team.

3 Assess the importance of market planning to the success of new products such as Culinesse. [8]

Answers may consider some of the following issues:

A definition of market planning: this is a detailed report on marketing objectives and the marketing strategy used to achieve them. It includes identifying: marketing objectives; marketing strategy; marketing-mix tactics; and setting a marketing budget.
- It is an essential part of an overall business plan. A marketing plan is necessary to convince Unilever to back Culinesse.
- Planning helps reduce risk as it requires marketing to consider the situation of the firm and strategies needed to make the product a success. Planning is a proactive rather than reactive approach to business.
- Planning provides direction for Unilever by setting clear marketing goals for Culinesse. If the plan is drawn up in collaboration with other departments, such as finance and operations, then there is more chance of having a suitable budget to meet marketing objectives and being able to produce the output to meet sales targets.
- Planning is important because many forms of promotion have a long lead time, e.g. television commercials need to be planned in advance as the adverts need to be produced. Advertising space needs to be secured in relevant magazines in advance. Distribution outlets need to be secured for Culinesse.
Do you believe that the product development manager is right to be so confident about the future success of Culinesse? Explain your answer. [12]

<table>
<thead>
<tr>
<th>Confidence justified</th>
<th>Confidence not justified</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The product was developed following extensive market research into consumer needs. The research should mean that the product 'connects with customers'.</td>
<td></td>
</tr>
<tr>
<td>• Market research continued throughout the product's development, using consumer panels that would provide qualitative feedback on packaging etc.</td>
<td></td>
</tr>
<tr>
<td>• The product has a unique selling point (USP) as it does not spit at high temperatures – this may be a feature that appeals to consumers.</td>
<td></td>
</tr>
<tr>
<td>• Culinesse has a 'squeeze-assisted' bottle. This is an innovative development in packaging.</td>
<td></td>
</tr>
<tr>
<td>• It is a highly competitive market with many well-established brands.</td>
<td></td>
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<tr>
<td>• The product is intended to be sold globally. Will it appeal to different cultures?</td>
<td></td>
</tr>
<tr>
<td>• Positive feedback during market research does not guarantee that consumers will adopt Culinesse.</td>
<td></td>
</tr>
<tr>
<td>• Unilever will have to persuade supermarkets and other retailers to stock the product. In a crowded product market that is not guaranteed.</td>
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</tbody>
</table>

Evaluation may consider:
Evaluation may consider that new product development is never guaranteed to be successful as so many factors beyond a firm’s control can change. However, it appears that Unilever has taken action through its multi-disciplinary approach and constant market research to minimise the risk of Culinesse failing.

Revision case study 2 (page 363): Mauritius Hotel Company

1. Calculate the promotional elasticities of demand from the data above – for hotels and for restaurants. [6]

Promotional elasticity of demand = %ΔQ_d ÷ %Δ Promotion

[1 mark if no accurate calculations.]

For hotels the percentage change in demand was:

\[
\frac{60 - 50}{50} \times 100 = 20\%
\]

The percentage change in promotional expenditure was:

\[
\frac{3.0 - 1.5}{1.5} \times 100 = 100\%
\]

Therefore, the promotional elasticity of demand was:

\[
\frac{20}{100} = 0.2
\]

For restaurants the percentage change in demand was:

\[
\frac{15 - 10}{10} \times 100 = 50\%
\]

The percentage change in promotional expenditure was:

\[
\frac{1.0 - 0.8}{0.8} \times 100 = 25\%
\]
Therefore, the promotional elasticity of demand was:

\[
\frac{50}{25} = 2
\]

2 On the basis of these results, do you think the company should change how it spends its promotional budget next year? Explain your answer. [8]

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The promotional elasticity of demand for the hotels is only 0.2. Demand has not been responsive to the increased promotion. Promotion has doubled but revenue has only increased by 20%.</td>
<td></td>
</tr>
<tr>
<td>• The Mauritius Hotel Company may benefit even more from a different form of promotion, i.e. promotional elasticity of demand could be higher.</td>
<td></td>
</tr>
<tr>
<td>• The increase in revenue may not necessarily be the result of the promotion.</td>
<td></td>
</tr>
<tr>
<td>• The promotion for the hotels has been successful in increasing revenue by $10m. This is a substantial increase in revenue and far exceeds the increased promotional cost of $1.5m.</td>
<td></td>
</tr>
<tr>
<td>• The promotion may have increased profit generated by the hotel. This will depend on the additional costs of providing the service to the increased number of customers.</td>
<td></td>
</tr>
<tr>
<td>• Repeating the promotional activity for the hotels may have an increased effect in 2010.</td>
<td></td>
</tr>
</tbody>
</table>

Evaluation may consider:
Evaluation may comment on the difficulty of identifying cause and effect with regard to promotional activity and revenue. The increase in revenue from the restaurants may be a result of other factors, e.g. increasing levels of income. It may also be argued that the company should conduct further research to try and determine the impact of the promotion; revenue figures alone are insufficient evidence.

3 Examine two factors that might explain why the promotional elasticities are so different. [8]

• Competitor spending on promotion—competitor hotels in Mauritius and other tourist destinations may be spending heavily on promotion in the same countries as the Mauritius Hotel Company. Restaurants in Mauritius may not have increased their promotional activity, thus increasing the effectiveness of the promotion undertaken by the Mauritius Hotel Company.

• External factors may have influenced the eventual revenue outcomes. For example, an increase in incomes in Mauritius would help increase custom to the restaurants. An appreciation of the Mauritian rupee would make it more expensive for foreign tourists to travel to and stay in Mauritius; this would counteract the positive impact of the promotion. Low economic growth in the countries in which the hotel promotes itself would also impact negatively on demand.

• Other changes in the marketing mix may affect the change in revenue.
Evaluate the usefulness of this elasticity technique in taking promotional-campaign decisions. [8]

Answers may comment on the following issues:

- If over time the Mauritius Hotel Company collects data on the effect of promotion and the same elasticity result is consistently produced, then this will provide useful data on which to base future promotional spending decisions.
- Estimating the promotional elasticity of demand for future promotional activity is difficult as a firm cannot be certain how consumers will react to promotion.
- Changes in the external environment will also have a significant impact on the outcome of promotion.
- A firm must also take into account the absolute impact of promotional activity on sales, not just the relative impact. For the Mauritius Hotel Company, additional promotional expenditure of $1.5 million contributed to an increase in revenue of $10 million.
- There may be long-term benefits to promotional expenditure not reflected in short-term increases in demand.
- Just because last year's radio campaign for the restaurant side of the business was successful does not mean that it will be as successful next year.

**Evaluation may consider:**

Evaluation may well recognise that calculation of price elasticity of demand is useful for businesses to consider in making marketing decisions, but it would be unwise to base major marketing decision on elasticity results alone.

If promotional advertising elasticity of demand is inelastic, this does not mean that promotion is ineffective and/or not worthwhile. You must also consider the absolute changes in expenditure and sales. For example, if a firm increased its promotional expenditure from $1m to $2m, and as a consequence sales rose from $100m to $130m, although promotional elasticity of demand is only 0.3, the $1m increase in expenditure has generated a $30m increase in revenue.

**Revision case study 3 (page 364): GlaxoSmithKline (GSK) – one of the world’s big researchers**

1. Evaluate the importance of increased R&D spending for a company such as GSK. [16]

- Inventions generate new product possibilities. The potential to make huge profits from blockbuster drugs is considerable. Premium prices and high profit margins can be enjoyed if effective new medicines are developed.
- For GSK 65% of sales come from just ten medicines. As GSK’s sales are over $50 billion that represents average sales of over $3.25 billion per medicine. This indicates the impact of successful drug development on company sales.
- The scale of the profits that can be made selling pharmaceuticals is shown by the $10 billion made by GSK. These profits and sales depend on developing new drugs.
GSK is under pressure to increase R&D from two key sources:
- It needs to find new drugs to replace drugs that are coming to the end of their patent. Without patent protection, drugs will be copied and the cheaper generic drugs will decimate the revenues of GSK. In 2007, sales of Coreg, a heart medication, fell by 97% when cheaper generic drugs became available.
- GSK suffers from competition from competitors, such as Pfizer. If Pfizer develops more effective drugs, this will damage GSK sales.
- The case of Avandia highlights the risk involved in research and development. GSK cannot be certain of the outcome of research and with the announcement of Avandia’s side effects, sales could fall significantly as health services switch to alternative treatments.
- Three of the top ten companies ranked by R&D expenditure are pharmaceutical firms. All three pharmaceutical firms spend significantly more, as a proportion of sales, than the other global companies in the top ten, with the exception of Microsoft.
- However, more R&D does not guarantee success. How a GSK spends its money is also crucial. Thus, GSK is hoping to increase the effectiveness of research spending by splitting researchers into groups of 80 in seven centres. Rather than the traditional model of chasing blockbuster drugs that achieve huge annual sales, GSK hopes that its new approach will lead to more drugs being developed by the company that earn a modest amount, reducing the risk of relying on a few big sellers.
- Ford and General Motors spend significant sums on R&D; however, both businesses have well-documented problems. Ford spends more than Toyota in absolute and relative terms, but it is Toyota that is more profitable. Clearly R&D does not guarantee success; it is only one of a number of elements that contribute to success.

Evaluation may consider:
Evaluation may consider the external constraints that pressure GSK to spend more and more on research and development. If GSK is to remain a leading player in the pharmaceutical industry, it would appear to be essential that it undertakes significant research. However, this will not guarantee success.

2 Assess the potential benefits and problems for a company such as GSK of attempting to make accurate sales forecasts. [12]

Answers may include:

Definition of sales forecasting: predicting future sales and sales trends.

Comment on different forecasting techniques such as:
- sales-force composite
- Delphi method
- time-series analysis
- correlation – may be important to a drugs company. There may be causal relationships between external events and demand, e.g. high mosquito infestation and the need for anti-malaria tablets.
Benefits include:

- GSK would be able to manage operations more effectively if it is able to predict sales accurately. Would facilitate just-in-time production techniques and reduce stockholding costs. The ingredients for the medicines could be ordered just in time for the production process, and stocks of finished goods would be reduced toward zero. Any reduction in costs increases GSK’s competitiveness.
- Some medicines may need special storage, or have a short shelf life, hence predicting demand is important to prevent increased costs and waste.
- Customers would be satisfied as GSK would be able to match supply to demand. It is important that GSK meets customer demand. A shortage of medicines would be damaging to its reputation.
- More efficient management of materials will delay cash outflows. Finance can plan the cash flows with greater accuracy.
- Human resource workforce plans would be more accurate. This would allow appropriate levels of staffing to be arranged. Suitable contractual arrangements can be made with staff to enable GSK to meet its needs and reduce costs. Staffing may be an important issue, as GSK may need skilled employees.
- Important element of GSK’s decisions about research and development is the need to be able to predict demand for different medicines in order to assess where to direct resources.

Problems include:

- It is difficult to make accurate forecasts. There are so many external factors that can change. For example, the impact of competitors such as Pfizer. Competitors are constantly developing new medicines which will affect the sales of GSK’s products. It may be difficult to predict these changes in the market, although it is likely that GSK is aware of medicines going through clinical trials prior to being launched.
- There are limitations in the techniques available. For example, time-series analysis is based on past data and depends on past trends continuing into the future. Although the technique can be useful for short-term prediction, forecasts into the long-term future cannot be trusted due to the unknown changes that may occur in the market.
- Changes in the economic environment need to be considered. These are difficult to predict but have a significant impact on demand.

‘Prediction is very difficult, especially about the future.’

(Niels Bohr, Nobel Prize-winning physicist)

Evaluation may consider:

Evaluation may acknowledge the difficulty of making accurate predictions about sales. However, an attempt to forecast sales is still essential in order to try and reduce risk.
**Essay**

**2a Explain the benefits and limitations of the moving-average sales forecasting method to an airline business. [10]**

**Definition of moving-average sales forecasting**: it is a quantitative forecasting technique based on extrapolating future demand from past sales. It depends on past trends continuing into the future.

Benefits include:
- It is a simple technique based on known and readily available data.
- The airline would be able to manage operations more effectively if it was able to predict sales. It would facilitate just-in-time production techniques and reduce stockholding costs. Raw materials, such as aviation fuel, could be ordered to match demand.
- Predicting demand is important as capital expenditure needs to be planned well in advance. For example, aircraft will need to be leased or purchased if demand is rising.
- Human resource workforce plans would be more accurate. This would allow appropriate levels of staffing to be arranged. This would be very important as key staff, such as pilots, need to be recruited and trained. Training will take a long time and be expensive, so it is important that forecasts are accurate.
- Customers would be satisfied as the airline would be able to match supply to demand. It is important that the airline meets customer demand. Failure to provide sufficient flights will lose sales to competitors.
- More efficient management of resources will delay cash outflows. Finance can plan the cash flows with greater accuracy.
- The technique allows seasonal variations to be taken account of when making predictions.

Limitations include:
Past sales trends are not necessarily a good predictor of future trends. There are many changes within the business environment that can alter previous trends. These include:
- Economic change – a downturn in the economy will have a significant impact on demand. The world economic recession of 2008/09 is decreasing the demand for air travel as tourism and business travel decline. Sales trends prior to 2008 would have suggested that demand would continue to grow through 2008 and 2009.
- Competition – competitors may enter and leave the market. For example, the explosion in low-priced air travel from operators such as Ryanair would not have been predicted by moving averages of the existing airlines in the market.

Other qualitative techniques should also be used.

**Evaluation may consider:**
The role of moving averages may be recognised in helping to forecast demand as a significant aid to planning but it is important to highlight the weaknesses of the technique in terms of its reliance on past sales data. Therefore, moving averages should not be used in isolation as a basis for decision making within an airline business.
Evaluate the importance of marketing planning to a food-producing business that is aiming to enter the soft drinks market for the first time. [15]

Answers may consider some of the following:

A definition of marketing planning: this is a detailed report on marketing objectives and the marketing strategy used to achieve them. It includes identifying: marketing objectives, e.g. targets relating to market share over time; marketing strategy; marketing-mix tactics; and setting a marketing budget.

- Planning helps reduce risk as it requires marketing to consider the situation of the firm and strategies needed to make the product a success. Planning is a proactive rather than reactive approach to business. The situational analysis would identify key competitors in the soft drinks market, such as Coca-Cola and PepsiCo, consider the strengths and weakness of their marketing mix and identify segments of the market in which success is more likely.

- Planning provides direction for the food business by setting clear marketing goals for their soft drink. If the plan is drawn up in collaboration with other departments, such as finance and operations, then there is more chance of having a suitable budget to meet marketing objectives and being able to produce the output to meet sales targets.

- Planning is important because many forms of promotion have a long lead time, e.g. television commercials need to be planned in advance as the adverts need to be produced. Advertising space needs to be secured in relevant magazines in advance. Distribution outlets need to be secured for the soft drink.

- As the business is entering the soft drinks market for the first time, it may be argued that careful planning is particularly important – it is a market in which the business has limited knowledge. The marketing plan will help reduce the risk of failure.