

**Mandatory professional -
Module**

Business Analysis

Time allowed : 15 minutes for reading and planning

3 hours for writing

December 18 – 2025

Section (A) The Question Compulsory .

Section (B) Answer Only Tow Question .

Do not open this paper until instructed by the supervisor.

P3

Paper

**The Accountancy & Audit Profession
Org. Council - Sudan**

AAPOC

Business Analysis P3

Section (A)

This Question must be attempted

The EcoCar company was formed six years ago to commercially exploit the pioneering work of Professor Jacques of Midshire University, a university in the country of Erehwon. Over a number of years he had patented processes that allowed him to use Lithium-ion batteries to power an electric car, which could travel up to 160 kilometres before it needed recharging. Together with two colleagues from the university, he set up EcoCar to put the car into commercial production.

Coincidentally, an area in the south of Midshire was suffering from major industrial decline. This area was centred on the former Lags Lane factory of Leopard Cars, which had recently been shut down by its parent company, bringing to an end 60 years of continuous vehicle manufacture on that site. Many skilled car production workers had been made redundant in an area that already suffered significant unemployment. Grants from the regional council and interest-free loans from the government allowed EcoCar to purchase and re-furbish part of the Lags Lane site and take on 100 of the skilled workers made redundant by Leopard Cars.

The company now manufactures three car models: the original Eco, the EcoPlus, and the EcoLite. The EcoPlus is a luxury version of the Eco and shares 95% of the same components. The EcoLite is a cheaper town car and uses only 70% of the components used in the Eco. The rest of the components are unique to the EcoLite. A comparison of an Eco with a similar petrol-fuelled car (Kyutia 215) is given in Figure 1. This table also gives a comparison with a hybrid car (Xdos-Hybrid C) where the petrol engine is supplemented by power from an electric motor. Hybrids are a popular way of reducing emissions and fuel consumption. Petrol currently costs \$5 per litre in Erehwon. There are also experimental cars, not yet in production, which are fuelled by other low-emission alternatives to petrol such as hydrogen.

Model	Eco	Kyutia 215	Xdos-Hybrid C
Power source	Lithium-ion batteries, electric motor	Petrol	Petrol with assistance from an electric motor
Price	\$9,999	\$7,999	\$9,500
Emissions (CO ₂)	Zero	180 gram/kilometer	95 gram/kilometer
Economy	Approximately \$1 per 20 kilometers (electricity charge)	8 liters/100km	5 liters/100km
Performance	0–100 kph: 18 seconds Max speed: 120 kph	0–100 kph: 10 seconds Max speed: 180 kph	0–100 kph: 12 seconds Max speed: 170 kph
Range	160 kilometers until the battery needs recharging	550 kilometers on a tank full of petrol	1,200 kilometers on a tank full of petrol

Figure 1: Comparison of the Eco with comparable conventional and hybrid cars

The Eco model range can be re-charged from a domestic electricity supply. However, to supplement this, the government has recently funded the development of 130 charging stations for electric cars spread throughout the country. It has also given business tax incentives to switch to electric cars and is heavily taxing cars with high CO₂ emissions because of the detrimental effect of excess CO₂ on the environment. It has also enacted a number of laws on car safety which EcoCar has to comply with. Erewhon itself remains a prosperous, developed country with a well-educated population. The government is committed to tackling social and economic problems in areas such as South Midshire. EcoCar still receives significant government grants to help keep the company financially viable.

The EcoCar model range is largely bought by 'green' consumers in Erewhon, who are prepared to pay a price premium for such a car. They are also popular in the Midshire region, where the residents are proud of their car making tradition and grateful to Professor Jacques and the government for ensuring its survival, albeit at a reduced level. Only 5% of EcoCar's production is exported.

Universal Motors

One year ago, EcoCar was bought by Universal Motors, the second largest car manufacturer in the world. Professor Jacques and his two colleagues remain as senior managers and board members of the company. Car production of electric cars is still very low (see Figure 2), but Universal Motors believes that demand for electric cars will be very significant in the future and purchased EcoCar as a way of entering this market. They believe that Lithium-ion batteries (the power source for the EcoCar range) will eventually become lighter, cheaper and give better performance and range.

Since purchasing the company Universal Motors have undertaken an external and internal analysis of EcoCar and invested further capital into the business.

Their analysis identified four main areas of weakness. These are given below:

(1) High cost of labour, skills shortage and production capacity problems

Although EcoCar was established in an area where there already existed a pool of skilled car workers, the subsequent retirement of many of these workers has left a skills gap. Although unemployment remains high in the area, applicants for jobs appear to lack the skills and motivation of the older workers. EcoCar is finding it difficult to recruit skilled labour and this shortage is being reflected in increased wages and staff costs at the Lags Lane site. The urban location of the Lags Lane site also causes a problem. Inbound logistics are made expensive by the relative inaccessibility of the site and the general

congestion on Midshire's main roads. Finally, there is insufficient production capacity at the Lags Lane site to meet the current demand for EcoCar's products. EcoCar attempts to produce the most profitable combination of its products within this constraint. However, it is unable to completely satisfy market demand.

(2) Lack of control and co-ordination

The individual departments and functions of the company are poorly integrated. Although budgets are agreed annually, they are not properly co-ordinated or monitored. Recently, car production was halted by the shortage of an important sub-assembly. Components for this sub-assembly had to be purchased quickly at a cost 10% above the normal purchase price. Overtime also had to be paid to employees to minimise the delay in restarting car production. A similar lack of co-ordination appears to exist within bought-in inventory items. A recent purchase order for superior quality car seats was agreed by senior management, despite the fact that few customers had ever specified this option on the EcoPlus model. The seats were delivered and stored, but the finance department was unable to pay for them within the supplier's agreed payment terms. This failure was leaked to a newspaper and a very public row took place between EcoCar and the supplier. Eventually short-term financing (at a premium interest rate) was agreed with one of the banks and the seat manufacturer was paid.

(3) Research and Development – succession and learning

In the initial growth of EcoCar, the technical capabilities of the three founding senior managers were very significant. However, these three managers are now aged 50 or over. There is concern that their technical expertise and thirst for innovation is diminishing. To some extent the senior managers recognised this themselves two years ago and instigated a graduate training scheme with the aim of 'bringing new thinking into the company and ensuring its future'. Four graduates were taken on and a graduate training scheme agreed. However, it was cut within a year because 'training costs got out of control' and all four graduates have subsequently left the firm. A resignation letter from one of the graduates criticised the 'poor management skills of senior managers'. Universal Motors is concerned that the research and management culture is inappropriate and outdated. As a result, the graduates were not properly managed or motivated and there is evidence that their contribution was not welcomed or recognised.

(4) The understanding of risk

Universal Motors is concerned that decisions are taken by the senior managers of EcoCar without a proper analysis of the associated risks. Although the three senior managers are individually quite risk averse, as a team they make quite risky decisions. At a recent meeting to discuss entering a car in an economy car rally (accompanied by a mobile charging system) various risks were discussed at length but not documented or analysed. After two hours of exhaustive discussion the three senior managers decided to vote on the decision. They all voted in favour. No further discussion was held about the risks they had just discussed. Furthermore, the risk of an employee leaving to join a competitor and taking valuable information with them is discussed at every board meeting. However, no action is taken to address the risk. There just seems to be a general expectation that it will not occur.

Outsourcing

To address the first internal weakness, Universal Motors is considering outsourcing the manufacture of the EcoLite model to an overseas company. Information relevant to this decision is presented in Figure 2. The potential manufacturer has quoted a production price to Universal Motors of \$3,500 per car. The manufacturing plant is approximately 300 miles from Erewhon, which includes crossing the 40 mile wide Gulf of Berang.

There are 112 production hours available in total per week at the Lags Lane site (seven days per week, two eight hour shifts) which can be used for a combination of the three product lines.

The weekly overhead costs are \$35,000 per week at Lags Lane. If the production of the EcoLite model is outsourced, it is forecast that overhead costs will fall by \$1,250 per week. The transportation cost is estimated at \$250 for each outsourced EcoLite produced

	<i>Eco</i>	<i>EcoPlus</i>	<i>EcoLite</i>
Selling price per car (\$)	9,999	12,999	6,999
Variable cost per car (\$)	7,000	10,000	4,500
Weekly demand (cars)	6	5	6
Production time per car (hrs)	9	10	8

Figure 2: Information relevant to the outsourcing decision

Required

(a) Universal Motors have explicitly recognised the need for analysing the external macro-environment and marketplace (industry) environment of EcoCar.

Analyse the external macro-environment and marketplace (industry) environment of EcoCar.

(16 marks)

Professional marks will be awarded in part (a) for the inclusion of appropriate model(s) and the overall

structure and clarity of the analysis. (4 marks)

(b) Universal motors is considering outsourcing the EcoLite model to an overseas manufacturer, whilst retaining in-house production of the Eco and EcoPlus models.

Evaluate the financial and non-financial case for and against the outsourcing option. (15 marks)

(c) Three weaknesses identified by Universal Motors are (1) lack of control and co-ordination, (2) research & development – succession and learning and (3) the understanding of risk.

Analyse how each of these three weaknesses might be addressed at EcoCar. (15 marks)

(Total = 50 marks)

Section (B)

Answer Only Two Questions

Questions One :

This scenario summarises the development of a company called Rock Bottom through three phases, from its founding in 1965 to 2008 when it ceased trading.

Phase 1 (1965–1988)

In 1965 customers usually purchased branded electrical goods, largely produced by well-established domestic companies, from general stores that stocked a wide range of household products. However, in that year, a recent university graduate, Rick Hein, established his first shop specialising solely in the sale of electrical goods. In contrast to the general stores, Rick Hein's shop predominantly sold imported Japanese products which were smaller, more reliable and more sophisticated than the products of domestic competitors. Rick Hein quickly established a chain of shops, staffed by young people who understood the capabilities of the products they were selling. He backed this up with national advertising in the press, an innovation at the time for such a specialist shop. He branded his shops as 'Rock Bottom', a name which specifically referred to his cheap prices, but also alluded to the growing importance of rock music and its influence on product sales. In 1969, 80% of sales were of music centres, turntables, amplifiers and speakers, bought by the newly affluent young. Rock Bottom began increasingly to specialise in selling audio equipment.

Hein also developed a high public profile. He dressed unconventionally and performed a number of outrageous stunts that publicised his company. He also encouraged the managers of his stores to be equally outrageous. He rewarded their individuality with high salaries, generous bonus schemes and autonomy. Many of the shops were extremely successful, making their managers (and some of their staff) relatively wealthy people.

However, by 1980 the profitability of the Rock Bottom shops began to decline significantly. Direct competitors using a similar approach had emerged, including specialist sections in the large general stores that had initially failed to react to the challenge of Rock Bottom. The buying public now expected its electrical products to be cheap and reliable. Hein himself became less flamboyant and toned down his appearance and actions to satisfy the banks who were becoming an increasingly important source of the finance required to expand and support his chain of shops.

Phase 2 (1989–2002)

In 1988 Hein considered changing the Rock Bottom shops into a franchise, inviting managers to buy their own shops (which at this time were still profitable) and pursuing expansion through opening new shops with franchisees from outside the company. However, instead, he floated the company on the country's stock exchange. He used some of the capital raised to expand the business. However, he also sold shares to help him throw the 'party of a lifetime' and to purchase expensive goods and gifts for his family. Hein became Chairman and Chief Executive Officer (CEO) of the newly quoted company, but over the next 13 years his relationship with his board and shareholders became increasingly difficult. Gradually new financial controls and reporting systems were put in place. Most of the established managers left as controls became more centralised and formal. The company's performance was solid but unspectacular. Hein complained that 'business was not fun any more'. The company was legally required to publish directors' salaries in its annual report and the generous salary package enjoyed by the Chairman and CEO increasingly became an issue and it dominated the 2002 Annual General Meeting (AGM). Hein was embarrassed by its publication and the discussion it led to in the national media. He felt that it was an infringement of his privacy and civil liberties.

Phase 3 (2003–2008)

In 2003 Hein found the substantial private equity investment necessary to take Rock Bottom private again. He also used all of his personal fortune to help re-acquire the company from the shareholders. He celebrated 'freeing Rock Bottom from its shackles' by throwing a large celebration party. Celebrities were flown in from all over the world to attend. However, most of the new generation of store managers found Hein's style to be too loose and unfocused. He became rude and angry about their lack of entrepreneurial spirit. Furthermore, changes in products and how they were purchased meant that fewer people bought conventional audio products from specialist shops. The reliability of these products now meant that they were replaced relatively infrequently. Hein, belatedly, started to consider selling via an internet site. Turnover and profitability plummeted. In 2007 Hein again considered franchising the company, but he realised that this was unlikely to be successful. In early 2008 the company ceased trading and Hein himself, now increasingly vilified and attacked by the press, filed for personal bankruptcy.

Required

(a) **Analyse the reasons for Rock Bottom's success or failure in each of the three phases identified in the scenario. Evaluate how Rick Hein's leadership style contributed to the success or failure of each phase.** (18 marks)

(b) **Rick Hein considered franchising the Rock Bottom brand at two points in its history – 1988 and 2007.**

Explain the key factors that would have made franchising Rock Bottom feasible in 1988, but would have made it 'unlikely to be successful' in 2007. (7 marks)

(Total = 25 marks)

Questions Two :

The Institute of Administrative Accountants (IAA) has a professional scheme of examinations leading to certification. The scheme consists of six examinations (three foundation and three advanced) all of which are currently assessed using conventional paper-based, written examinations. The majority of the candidates are at the foundation level and they currently account for 70% of the IAA's venue and invigilation costs.

There are two examination sittings per year and these sittings are held in 320 centres all over the world. Each centre is administered by a paid invigilation team who give out the examination paper, monitor the conduct of the examination and take in completed scripts at the end. Invigilators are also responsible for validating the identity of candidates who must bring along appropriate identification documents. At over half of the centres there are usually less than ten candidates taking the foundation level examination and no candidates at all at the advanced level. However, the IAA strives to be a worldwide examination body and so continues to run examinations at these centres, even though they make a financial loss at these centres by doing so.

Recent increases in invigilation costs have made the situation even worse. However, the principles of equality and access are important to the IAA and the IAA would like to increase the availability of their examinations, not reduce it. Furthermore, the IAA is under increased financial pressure. The twice-yearly examination schedule creates peaks and troughs in cash flow which the Institute finds increasingly hard to manage. The Institute uses its \$5m loan and overdraft facility for at least four months every year and incurred bank charges of \$350,000 in the last financial year.

Examinations

All examinations are set in English by contracted examiners who are paid for each examination they write. All examinations are three-hour, closed-book examinations marked by contracted markers at \$10 per script. Invigilators send completed scripts directly to markers by courier. Once scripts have been marked they are sent (again by courier) to a centralised IAA checking team who check the arithmetic accuracy of the marking. Any marking errors are resolved by the examiner. Once all marks have been verified, the examination results are released. This usually takes place 16 weeks after the examination date and candidates are critical of this long delay. The arithmetic checking of scripts and the production of examination results places significant demands on IAA fulltime administrative staff, with many being asked to work unpaid overtime. The IAA also employs a significant number of temporary staff during the results processing period.

E-assessment

The new head of education at the IAA has suggested e-assessment initiatives at both the foundation and advanced levels.

He has suggested that all foundation level examinations should be assessed by multiple-choice examinations delivered over the Internet. They can be sat anytime, anyday, anywhere. 'Candidates can sit these examinations at home or at college. Anywhere where there is a personal computer and a reliable broadband connection.'

Advanced-level examinations will continue to be held twice-yearly at designated examination centres. However, candidates will be provided with personal computers which they will use to type in their answers. These answers will then be electronically sent to markers who will use online marking software to mark these answers on the screen. The software also has arithmetic checking facilities that mean that marks are automatically totalled for each question. 'One hundred per cent arithmetic accuracy of marking is guaranteed.'

He has also suggested that there is no need to make a formal business case for the adoption of the new technology. 'Its justification is so self-evident that defining a business case, managing benefits and undertaking benefits realisation would just be a pointless exercise. It would slow us down at a time when we need to speed up.'

Required

- (a) Evaluate the perceived benefits and costs of adopting e-assessment at the IAA. (15 marks)**
- (b) Explain why establishing a business case, managing benefits and undertaking benefits realisation are essential requirements despite the claimed 'self-evident' justification of adopting e-assessment at the IAA.**

(10 marks)

(Total = 25 marks)

Questions three :

IL (Independent Living) is a charity that provides living aids to help elderly and disabled people live independently in their own home. These aids include walkers, wheelchairs, walking frames, crutches, mobility scooters, bath lifts and bathroom and bedroom accessories.

IL aims to employ people who would find it difficult or impossible to work in a conventional office or factory. IL's charitable aim is to provide the opportunity for severely disabled people to 'work with dignity and achieve financial independence'. IL currently employs 200 severely disabled people and 25 able bodied people at its premises on an old disused airfield site. The former aircraft hangars have been turned into either production or storage facilities, all of which have been adapted for severely disabled people.

Smaller items (such as walking frames and crutches) are manufactured here. These are relatively unsophisticated products, manufactured from scrap metal bought from local scrap metal dealers and stored on-site. These products require no testing or training to use and they are packaged and stored after manufacture. IL uses its own lorry to make collections of scrap metal but the lorry is old, unreliable and will soon need replacing.

Larger and more complex items (such as mobility scooters and bath lifts) are bought in bulk from suppliers and stored in the hangars. Delivery of these items to IL is organised by their manufacturers. These products are stored until they are ordered. When an order is received for such products, the product is unpacked and tested. An IL transfer logo is then applied and the product is re-packaged in the original packing material with an IL label attached. It is then dispatched to the customer. Some inventory is never ordered and last year IL had to write-off a significant amount of obsolete inventory.

All goods are sold at cost plus a margin to cover wages and administrative costs. Prices charged are the same whether goods are ordered over the web or by telephone. Customers can also make a further voluntary donation to help support IL if they wish to. About 30% of customers do make such a donation.

Ordering and marketing

IL markets its products by placing single-sided promotional leaflets in hospitals, doctors' surgeries and local social welfare departments. This leaflet provides information about IL and gives a direct phone number and a web address. Customers may purchase products by ringing IL directly or by ordering over their website. The website provides product information and photos of the products which are supplied by IL. It also has a secure payment facility. However, customers who ring IL directly have to discuss product requirements and potential purchases with sales staff over the phone. Each sales

discussion takes, on average, ten minutes and only one in two contacts results in a sale. Twenty per cent of sales are through their website (up from 15% last year), but many of their customers are unfamiliar with the Internet and do not have access to it.

Goods are delivered to customers by a national courier service. Service and support for the bought-in products (mobility scooters, bath lifts) are supplied by the original manufacturer.

Commercial competitors

IL is finding it increasingly difficult to compete with commercial firms offering independent living aids. Last year, the charity made a deficit of \$160,000, and it had to sell some of its airfield land to cover this. Many of the commercial firms it is competing with have sophisticated sales and marketing operations and then arrange delivery to customers directly from manufacturers based in low labour cost countries.

Required

IL fears for its future and has decided to review its value chain to see how it can achieve competitive advantage.

- (a) Analyse the primary activities of the value chain for the product range at IL. (10 marks)
- (b) Evaluate what changes IL might consider to the primary activities in the value chain to improve their competitiveness, whilst continuing to meet their charitable objectives. (15 marks)