AQA
Questions matter

Accounting

Answers and commentaries

A-level (7127)

Paper 2: Accounting for analysis and decision-making

Marked answers from students for questions from the June 2022 exams. Supporting commentary is provided to help you understand how marks are awarded and how students can improve performance.

Version 1.0
June 2024

Contents

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Answers and commentaries

This resource is to be used alongside the A-level Accounting June 2022 Question Paper 2 Accounting for analysis and decision-making and inserts.

3 mark question

Question 11

Explain **one** limitation of using ratios to analyse business performance.

[3 marks]

Mark scheme

AO1 – 3 marks

Level	Marks	Description
3	**3**	A clear and thorough explanation showing understanding of a limitation.
2	**2**	A partial explanation showing understanding of a limitation but lacking detail and/or minor inaccuracies.
1	**1**	Fragmented points made.
0	**0**	Nothing worthy of credit.

Answers may include:

- Ratios may be based on out of date data which may not reflect the current position eg trade receivables days calculated on data at the date of the statement of financial position.
- Different accounting policies make it difficult to compare either between businesses or between years if not comparing like with like eg a business using the reducing balance method for depreciation would have a higher depreciation charge in early years compared to a business using the straight line method which would mean a lower profit in relation to revenue ratio in the early years.
- Window dressing eg creating provisions for irrecoverable debts to reduce profit for the year.
- Ratios only considers financial factors – do not consider non-financial factors, eg customer satisfaction, product quality.
- Ratios do not consider external factors that could impact business performance eg a recession.
- Ratios do not show the cause, therefore further work is needed to accurately assess business performance eg a low gross profit margin could be caused by deliberately reducing the price to increase sales volume.

- Ratios need to be compared with either past performance/other businesses/industry averages in order to make an assessment eg a low acid test ratio may not be low when compared with the industry average.

Marker note:
Award marks for one limitation only.

The indicative content is not exhaustive; other creditworthy material should be rewarded.

Student responses

Response A

They work on historical data meaning the results are not reliable or accurate. This doesnt show a true view of the company.

This is a Level 1 response

The response starts with a correctly stated limitation of ratio analysis, but the remainder of the response is incorrect.

1 mark

Response B

One limitation of ratios is that they do not take into account qualitative or non-financial data. This means that a potential investor, for example, cannot get a true picture of the long term sustainability of the business. For example, they do not know the level of training of the employees or the ethical practices of the business.

This is a Level 3 response

This response clearly explains a limitation of ratio analysis. Firstly, a limitation is stated which is then explained further. Finally, an example is provided demonstrating a good understanding.

3 marks

6 mark question

Question 14.3

The Finance Director is mainly responsible for the setting of all budgets using standards that have remained unchanged for several years. The Finance Director feels that the current budgets are fair and realistic.

The Sales Director is unhappy with the budgets that have been set as they feel that they are demotivating the sales staff.

Assess whether the budgeted figures produced by the current standard costing system are motivational.

[6 marks]

Mark scheme

AO2 – 2 marks, AO3 – 4 marks

Level	Marks	Description
3	**5–6**	Judgements are fully supported by a wide range of evidence. A clear and balanced analysis of data/information/issues is provided, showing a logical chain of reasoning.
2	**3–4**	Judgements are partially supported by evidence. A reasoned, but unbalanced analysis of data/information/issues is provided; starts to develop a chain of reasoning. Comprehensive and relevant knowledge and understanding of principles/concepts/techniques has been applied in context.
1	**1–2**	Judgements may be asserted but are unsupported by evidence. An analysis of discrete points of data/information/issues provided; no chain of reasoning is attempted. Limited but relevant knowledge and understanding of principles/concepts/techniques has been applied to the context.
0	**0**	Nothing written worthy of credit.

Answers may include:

- Sales variances – are significant.
  Product A: the volume variance is £20 000 (OF) favourable which could mean that the targeted volume of 2850 units is unrealistic and too easily attainable; or the variance is caused by the reduced selling price.
- Product B: the sales volume variance of £27 500 adverse could mean that the targeted sales volume of 6 000 units is unrealistic or this could have been due to increases in the sales price causing a £16 500 favourable price variance.
- To motivate employees to achieve the targets set, the standards set should be attainable, based on achievable but not perfect operating conditions. However, Ebau Ltd does not regularly update the standards meaning they may be too easy, or too difficult, to attain so will not motivate the managers. As they are not being regularly updated then the managers will not be encouraged to look at how existing operating conditions could be improved on to make efficiency savings.
- Variances should be split between controllable and non-controllable and managers should only be held accountable for those costs that they can control. Being held accountable for non-controllable costs would be demotivating.
- The variances may have been caused by factors outside the control of the business, eg external factors which would be demotivating. In the case of sales variances the selling price may be beyond the control of the sales department and thus any resulting volume variance may be demotivating.
- The information provided to the managers needs to be more detailed. It would seem that currently the standards are set by the Finance Director with little input from the managers who are responsible for them, which would be demotivating. However, involvement of the managers could be time consuming and hence costly and could result in them trying to make the standards easier to achieve.
- Variances should be split into their component parts. The £3 025 adverse total material variance could be caused by a larger adverse price variance being offset by a favourable usage variance.

Marker note:
Not all indicative content needs to be covered to gain full marks.

The indicative content is not exhaustive; other creditworthy material should be rewarded.

Student responses

Response A

I believe that the current standard costing system using the unchanged budgeting figures are not motivational. This is because as a result of the incorrect data, staff will be set targets based off of that data and not current data. This means that the staff could be have been given unobtainable objectives that were possible but no longer are or they could be given targets that are under using their skills, making them feel less appreciated by the business and in both cases cause a fall in motivation and productivity. Therefore, unless the current system is updated with newer standards based off of more relevant data, productivity will continue to fall until staff begin to leave the business.

This is a Level 2 response

This response provides a judgement supporting the argument that budgets are not motivational. The response is detailed and there is a good chain of reasoning. However, the response is not balanced (ie an argument stating that budgets are motivational is not given). There is also no reference to the variances calculated in Question 14.1 or the reconciliation statement produced in Question 14.2, so this response lacks the evidence needed in the mark scheme for a Level 3.

3 marks

Response B

Budget figures may be motivational because it gives a target for staff to aim for. This may lead to staff acting to reach the target. Therefore, the budgeted figures may be motivational as ~~the~~ sales staff know their aim. For example, staff sold 250 more units than budgeted in May ~~March~~ 2023 of product A.

Budgeted figures may be demotivational if ~~it~~ they are set too high or too low. This is because if they are too high staff may not feel they can reach targets so may not try to. If they are too low, staff may not work as hard to get as many sales. This could mean ~~sales~~ budgeted figures may be demotivating as staff may not try to achieve their sales targets. For example, in May 2023 500 units less than budgeted were sold which could mean staff aren't motivated to sell 6000 units of product B.

The budgeted figures produced by standard costing may be demotivational as overall, ~~over~~ ~~both products~~, staff are selling less than was budgeted for. This could indicate they don't meet their targets as they could be too high.

This is a Level 3 response

This response provides arguments both for and against the use of budgets to motivate staff and is therefore balanced. The arguments provide a good chain of reasoning. Each judgement then refers to data from Question 14.2 which supports the argument. Finally, an overall judgement is given that relates to the case study. This response has a good structure that is easy to follow.

6 marks

6 mark question

Rebecca currently produces and sells 16 000 event tents per annum.

The standard cost of producing one tent is as follows.

Direct materials	– 54 metres at £2.50 per metre
Direct labour	– 2 hours in the cutting department
	– 4 hours in the assembly department
Employees are paid	– cutting department £12 per hour
	– assembly department £16.50 per hour

Tents are sold at marginal cost plus 10%. This enables Rebecca to cover her annual fixed production overheads of £268 000 and achieve her target profit.

Question 15.3

Rebecca has always used marginal costing to set her selling price. She was recently approached by a festival organiser to supply tents for one large event during 2024.

Assess whether Rebecca should continue to use marginal costing to set her selling price for this potential order.

[6 marks]

Mark scheme

AO2 – 2 marks, AO3 – 4 marks

Level	**Marks**	**Description**
3	**5–6**	Judgements are fully supported by a wide range of evidence. A clear and balanced analysis of data/information/issues is provided, showing a logical chain of reasoning.
2	**3–4**	Judgements are partially supported by evidence. A reasoned, but unbalanced analysis of data/information/issues is provided; starts to develop a chain of reasoning. Comprehensive and relevant knowledge and understanding of principles/concepts/techniques has been applied in context.
1	**1–2**	Judgements may be asserted but are unsupported by evidence. An analysis of discrete points of data/information/issues provided; no chain of reasoning is attempted. Limited but relevant knowledge and understanding of principles/concepts/techniques has been applied to the context.
0	**0**	Nothing written worthy of credit.

Answers may include:

Arguments for using marginal costing:
- Marginal costing is useful for making decisions such as one-off orders as it will ensure that Rebecca covers the variable costs incurred with the potential order.
- If fixed costs do not change she should make a profit on the order.
- Rebecca has experience of using marginal costing, so should be confident in setting prices that will cover fixed costs and make a profit.

Argument against using marginal costing:
- Fixed costs may increase and she may not make a profit on the order, for example if she has to stay in the current factory and fixed costs are not reduced.
- A change of costing methods could result in increased costs for example for accountants or training.
- It may not be appropriate to continue with marginal costing as she used this method previously and her sales and production were falling.
- The costing method she uses may be irrelevant if selling prices are determined by the market eg in a competitive market.

Marker note:
Not all indicative content needs to be covered to gain full marks.

The indicative content is not exhaustive; other creditworthy material should be rewarded.

Student responses

Response A

Marginal costing means that Rebecca can calculate the contribution per tent for this order. However, marginal costing doesn't include any fixed costs which means that setting a selling price using this costing method does not ensure she is covering all her costs per unit.

~~for~~ As an alternative, Rebecca should consider using absorption or activity-based costing, which both factor in fixed overhead costs meaning that the selling price will be more appropriate and will cover all the costs per unit. This will be beneficial as this is a large order, so she needs to ensure she is making a good amount of profit per tent – and this is more likely to happen if she uses an alternative costing method to marginal costing. Therefore, I think that ~~Rebecca~~ Rebecca should choose a different costing method such as absorption or activity-based costing, to set her selling price for this potential order.

This is a Level 2 response

This response focusses on the disadvantages of marginal costing and is therefore unbalanced. The opening paragraph correctly identifies one disadvantage of the method. The remainder of the response suggests using an alternative method and, by explaining why this method would be better, the student explains the disadvantage of marginal costing. A judgement is provided which is partially supported.

3 marks

Response B

Rebecca can carry on using marginal costing to set her selling price for this potential order as marginal costing is quick and easy to calculate which means Rebecca doesn't have to potentially hire an accountant to help with calculating costs and selling prices.

However, Absorption costing may be a better option as it takes into account fixed costs per unit when calculating the selling price which would make calculating the selling price ~~much~~ easier to reach a certain level of target profit and marginal costing doesn't take into account fixed costs until after contribution has been calculated.

As Rebecca may be taking on this potential large event order, absorption costing would be beneficial as this may mean buying new machinery and/or land and buildings. So calculating selling price to achieve a target profit would be easier.

This is a Level 2 response

This response starts with a clear advantage of marginal costing that is fully explained. In the second paragraph there is a suggestion of an alternative method which implies a disadvantage of marginal costing. Therefore, the response is balanced. The response ends with a judgement but there is no reference to the calculations made in the earlier sections of Question 15 that would provide evidence to fully support the judgement.

4 marks

25 mark question

Read the information for question 16 on page 6-7 of the insert.

D2 plc produces two products, Basic and Premier. The selling price of each product is based on a 50% mark-up on variable costs.

	Basic	**Premier**
Units produced each week	1 500	120
Variable cost (per unit)	£60	£100
Contribution (per unit)	£30	£50

There is no opening or closing inventory of either product.

After fixed overheads of £32 772 per week D2 plc makes a profit of £18 228.

A director is concerned about falling profitability, which he thinks is due to making less profit per unit on sales of the Basic. He has suggested that the company changes to activity-based costing and setting the selling price of each product on a 12.5% mark-up on total cost. He has provided the following calculation of total cost per unit.

	Basic	**Premier**
Units produced each week	1 500	120
Batches produced each week	1	1
Variable cost (per unit)	£60	£100
Fixed overheads (per unit) Machine set-ups Quality control	 £8.30 £4.20	 £103.75 £13.10
Total cost (per unit)	£72.50	£216.85

Each new batch requires the machinery to be reset.

The company trades in a competitive market. It has a loyal customer base, a mix of wholesalers and retailers. Fe3 Ltd purchases over 80% of all Premiers produced.

For many years D2 plc has rented a large factory and warehouse.

Question 16

Evaluate the director's proposal to change to activity-based costing to improve profitability.

[25 marks]

Mark scheme

AO2 – 5 marks, AO3 – 20 marks

Level	Marks	Description
5	**21–25**	A clear and balanced response that presents a coherent and logically reasoned judgement and conclusion/solution that is supported by an astute consideration of a wide range of evidence including other factors relevant to the wider context. There is an insightful assessment of the significance and limitations of the evidence used to support the judgement.
4	**16–20**	A reasoned, but in places unbalanced, judgement and conclusion/solution is presented that is supported by an evaluation of a wide range of evidence, including a narrow consideration of other factors relevant to the wider context. There is a partial assessment of the significance and limitations of the evidence used to support the judgement.
3	**11–15**	An underdeveloped judgement and conclusion/solution is presented that is supported by an evaluation of a range of evidence provided in the question; however there may be inconsistencies and the reasoning may contain inaccuracies. A comprehensive and relevant selection of information is analysed, showing a developed logical chain of reasoning. The results of any appropriate calculation/s are integrated into the analysis and evaluations offered on most. Comprehensive and relevant knowledge and understanding of principles/concepts/techniques is drawn together and applied successfully to the context. Where appropriate, a thorough selection of relevant calculations is attempted; these may include minor errors.

2	**6–10**	A basic judgement and conclusion/solution is presented, it is supported by a limited evaluation of evidence provided in the question, containing significant inaccuracies. A limited but relevant selection of information is analysed, starting to develop a logical chain of reasoning. The results of the calculation/s are integrated into the analysis but with weak evaluations. Limited but relevant knowledge and understanding of principles/concepts/techniques is drawn together and applied successfully to the context. Where appropriate, a limited selection of relevant calculations is attempted; these may include minor errors.
1	**1–5**	A judgement and conclusion/solution may be asserted, but it is unsupported by any evidence. Responses present a limited selection of information that is not wholly relevant with an attempt at analysis. A chain of reasoning ranges from being barely present to undeveloped. Fragmented items of knowledge and understanding of principles/concepts/techniques relevant to the contexts are present. These are likely to be descriptive, with limited application to the context. Where appropriate, some calculations are attempted; these are likely to contain errors and may not be relevant to the context. Results of the calculations are stated with little or no evaluation.
0	**0**	Nothing written worthy of credit.

Answers may include:

AO2 Application:
The selling price of each unit would be:

	Basic	Premier
Marginal costing	£90	£150
ABC	£81.56	£243.96

Profit per unit

	Basic	Premier
Profit per unit	£8.44	£27.10

Profitability would not be improved by changing the method of setting selling prices. The current profit for the week would fall from £18 228 to £16 847 (if calculations are rounded then profit is approximately £16 843).

Profit falls by £1 381 **OF** per week if new method adopted.

AO3 Analysis and Evaluation:
The selling price of a basic would be £8.44 less using ABC, whilst the price of a premier would rise significantly by £93.96 (63 %).

Would the company be able to increase the selling price of the Premiers? Although Fe3 Ltd are a loyal customer, the company operates in a competitive market so they may look to move their business elsewhere. If Fe3 Ltd and other Premier customers stop buying Premiers, what happens to the fixed overheads? Is it possible to reduce them?

No information on whether Fe3 Ltd also purchase Basics. Sales of Premiers could be a loss leader. Any interdependency between products?

If the current selling price was applied to the total cost per unit of each product then the profit/loss of each unit would be:

	Basic	Premier
Profit / loss (per unit)	£17.50	(£66.85)

Taking into consideration the overhead cost of each unit, it is not the Basic that the director should be concerned about but the Premier, as it is currently making a loss of £66.85 per unit. ABC increases the cost of making a Premier as they are made in small batches, with each batch incurring a set up cost, as there are smaller units in each batch of premiers compared to the larger batches of basics then the cost is spread over a smaller number of units in the batch. The company is currently doing 52 production runs a year for each product which may not be required. If there are fewer production runs of Premiers, so that each production run is a larger batch would this reduce the fixed overhead cost in total? Scheduling of production runs should be investigated as machine set up costs are a significant part of the total cost.

Benefits of using ABC
ABC may be seen as more accurate when setting selling prices.
Loss making product – Premier has been identified, allowing corrective action to be taken – eg either discontinue producing Premier or look at reducing the cost of production eg less production runs, but higher number produced in each batch, only at certain times of the year.

In periods of increasing inventory levels the profit will be higher than if using marginal costing – which could mean shareholders demanding higher dividends/share pricing rising. However, over the longer- term profits will be the same.

Drawbacks of using ABC
There would be a cost incurred in setting up ABC, and as the result of the change would result in profits remaining largely unchanged, is the change in methods worthwhile?

Limitations:
Are the figures reliable? – Does the Director have the skills needed to calculate the fixed overhead cost? – There are only 2 cost drivers – is there any inaccuracy combining overheads into just 2 cost pools?

ABC requires more time and effort, does the company have the skills if not then may need staff training – additional cost.

How will customers react to the change in prices? Unless changes are made to production then overall profit would remain the same.

Is D2 plc able to change production to meet any changes in demand, for example an increase in demand for Basic product?

Other factors:
Have other actions been investigated to improve profitability?

Is the large factory and warehouse still needed?

Will the market for Premiers accept a price rise? – Competition/will customers pay more just because they have changed their method of overhead costing?

Would traditional absorption costing be relevant?

Evaluation:
A change to activity-based costing would not improve the profitability of D2 plc. However, what the exercise has highlighted is the inefficiency in how Premiers are produced and the company should look at reducing the number of the production runs and increasing the number made in each run.

Marker note:
The indicative content is not exhaustive: other creditworthy material should be awarded marks as appropriate.

Student responses

Response A

Activity-based costing involves dividing down the overheads and proportioning them equally in relation to how much they are used for a certain product. In this case it is divided into machine set ups and quality control.

One advantage of moving to ABC is that it will enable them to ensure they are making profit on both products, because at the moment they are making a loss of £66.85 on the premier product when using ABC. Therefore by raising the price to £243.96 as the director suggested they will ensure that they are making a profit on both products resulting in a better business.

There is however a risk that the increase in prices, as a result of ABC, will ~~[illegible]~~ cause Fe3 to stop buying ~~[illegible]~~ their premier product and as they are by far their biggest customer for this product this would result in a big drop in sales and therefore profit.

Another advantage of price changes that would result ~~b~~ if they started using ABC costing is the price of the basic product and as this is a very competitive market it is likely that there will be an increase in sales which should make up for the initial loss in profit that the price drop will cause.

The idea to change to costing method to ABC is a good one as it means that both products will make a profit once ~~[illegible]~~ costs not accounted for under variable costs have been included which should help to increase the overall profit ~~[illegible]~~ in time. However to start with if sales stay the same profit will fall to £16 846.50 so if sales volume does not increase then the profit will ~~[illegible]~~ not be as good.

This is a Level 3 response

The response starts with a clear definition of activity-based costing (ABC). Then there is a correct calculation of the new selling price based on ABC which demonstrates application of the data from the case study. There is also a correct calculation of the change in profit. The next section refers to the treatment of fixed overheads in ABC compared to marginal costing which shows a lack of understanding of how the methods work. The reference to ABC being able to identify areas for improvement of efficiency is correct and demonstrates some knowledge of the method.

There is reference to different reasons that can cause low profits (factory rental) showing an awareness of factors outside of the given case study (wider context). This is clearly explained with a logical chain of reasoning.

A judgement is provided in the final paragraph that is partially supported. There is also a brief reference to the limitations of the data.

Overall, this response has an underdeveloped judgement and contains some inaccuracies.

13 marks

Response B

There are different benifits and draw backs to both marginal costing which is the type he is using curretly and activity ~~pa~~ based costing. However to make a decition we must look at the circumstances.

One benifit of activity based costing is that it encompases all costs. This will make it much easier for D2 to accuratly cost. As clear from the case study D2 has fixed overheads of £32772. In his current method of costing these overheads are not being taken into account. For this reason activity based costing would improve his proficability as it would allow him to see the accurate unit cost on each indervidual product and allow him to raise his prices accordingly. This would alSo allow D2 to analyse ~~a~~ their costs against the industry average. Although we are not told the inventory averages we can suggest that these could help identify and inefficiencies in his fixed overheads which would help him to lower unit cost and become more competative and therefor more profitable.

Activitie based costing will also allow D2 to raise profitability with in the production. Batch sizes are taken into account through the Activity based costing Method. This means that In order to rais profitability he may be able to look at amending batch sizes. The premier product is very costly in terms of Machine set ups at £103.75 per product. However, If he changed his production methods to increase his batch sizes this cost would drop ~~drop~~ the unit cost. demonstrating this the units per week is 120 if they chose to do one batch per month increasing units produced in one batch to 480 the total cost of machine setups of 103.75 x 120 = ~~15690~~ 12450 ~~wold~~ would be spread over the 480 over the month making the new cost of set ups per product as ~~15690~~ 12450 / 480 = £25.94 lowering the unit cost by £77.81.

However, on the other hand marginal costing allows for a greater contribution per unit. The Basic product currently is a total cost of 72.50 and D2 are looking to ~~raise~~ lower the mark up to 12.5% from 50% on variable cost. Where as contribution per unit was £30 excluding overheads through activity based costing it has gone down to £9.10. This a lot lower than the mark up achived through Marginal costing however, this did not include the fixed overheads so is less accurate way to

Extra space Cost

Another disadvantage for D2 in activity based costing is the significant price raises there will be in the premier product. priviously the selling price was £150 however in the activity based costing the price will raise to £243.95, if they are unable to achive efficiencies through batch sizes. This is a worry as 80% of this product are purchased by one company and is clearly a main stream of income. Prices raised by £93.95 are likly to force Fe3 to find a new supplier. this means although it would improve the profitability on each product sales may drop leaving D2 less profitable overall.

Overall, D2 should change to activity based costing this is because of the much greater detail D2 will get from the production process. This will allow them to analyse the data given and make improvments to the production system to improve profitability.

This is a Level 5 response

This response clearly applies the data from the scenario by calculating the revenue gained by each of the products. Then the revenue from the proposed change to activity-based costing (ABC) is calculated. The response correctly identifies that the proposed change will not increase profitability for the business and that, in this instance, the change to ABC would not be beneficial. Each argument shows a logical chain of reasoning.
Limitations of the data are clearly identified, eg the assumption that all stock would be sold. The response also considers a range of evidence from the wider context, eg the market is competitive and one set of customers may not tolerate a large increase in price whereas the reduction in price of the other product may drive up demand.
A fully supported judgement is provided with a reference to the requirements of shareholders, demonstrating further evidence from the wider context.
Overall, this response presents a clear and logically reasoned judgement that is supported by a wide range of evidence and limitations of the data are considered.

22 marks

25 mark question

Read the information for question 17 on pages 8-9 of the insert.

Tuor plc is a property development company that specialises in the renovation of luxury houses in London. Eight years ago it purchased 95 acres of farmland on the outskirts of a small city in South West England. The land cost £15 million and a further £0.5 million was spent on site clearance before submitting a planning application for 1 600 houses. There were many objections to the planning application from the local community. Many of the locals were either not in work or in minimum wage jobs and feared that the development would result in people moving in from out of the area or that the houses would be bought by landlords. It was argued the local hospital and schools would not cope with such a large increase in the population.

Due to the objections the planning application for the housing development was rejected. However, the council has stated it will approve **one** of the following alternative developments.

Development A
To build a county stadium, to be used as the home ground for the city's non-league football club, the county's rugby team and the local college. It will also be used as a conference and music venue. Tuor plc will operate the stadium and hope to employ up to 160 part-time staff.

Development B
To build a large out-of-town shopping complex, along with a smaller development of 150 houses. The houses will be large executive family houses starting at £900 000. The shopping complex will be the largest enclosed shopping area in South West England. The city centre, which can be reached by a park and ride scheme, has a mix of small independent shops and traditional high street shops.

The Finance Director of Tuor plc, who is also a non-executive director of the city's football club, has provided the following information.

	Development A	**Development B**
Cost (excluding land)	£16 million	£60 million
Net present value	£824 000	£3.6 million
Life of project	35 years	20 years
Payback period	20 years	12 years

The cost has been based on similar developments in London.

The net present value was calculated using a discount rate of 12% which is used for current operations.

Question 17

Evaluate the two developments and advise the directors which one should be selected.

Consider **both** financial and non-financial factors.

[25 marks]

Mark scheme

AO2 – 5 marks, AO3 – 20 marks

Level	Marks	Description
5	**21–25**	A clear and balanced response that presents a coherent and logically reasoned judgement and conclusion/solution that is supported by an astute consideration of a wide range of evidence including other factors relevant to the wider context. There is an insightful assessment of the significance and limitations of the evidence used to support the judgement.
4	**16–20**	A reasoned, but in places unbalanced, judgement and conclusion/solution is presented that is supported by an evaluation of a wide range of evidence, including a narrow consideration of other factors relevant to the wider context. There is a partial assessment of the significance and limitations of the evidence used to support the judgement.
3	**11–15**	An underdeveloped judgement and conclusion/solution is presented that is supported by an evaluation of a range of evidence provided in the question; however there may be inconsistencies and the reasoning may contain inaccuracies. A comprehensive and relevant selection of information is analysed, showing a developed logical chain of reasoning. The results of any appropriate calculation/s are integrated into the analysis and evaluations offered on most. Comprehensive and relevant knowledge and understanding of principles/concepts/techniques is drawn together and applied successfully to the context. Where appropriate, a thorough selection of relevant calculations is attempted; these may include minor errors.

2	**6–10**	A basic judgement and conclusion/solution is presented, it is supported by a limited evaluation of evidence provided in the question, containing significant inaccuracies. A limited but relevant selection of information is analysed, starting to develop a logical chain of reasoning. The results of the calculation/s are integrated into the analysis but with weak evaluations. Limited but relevant knowledge and understanding of principles/concepts/techniques is drawn together and applied successfully to the context. Where appropriate, a limited selection of relevant calculations is attempted; these may include minor errors.
1	**1–5**	A judgement and conclusion/solution may be asserted, but it is unsupported by any evidence. Responses present a limited selection of information that is not wholly relevant with an attempt at analysis. A chain of reasoning ranges from being barely present to undeveloped. Fragmented items of knowledge and understanding of principles/concepts/techniques relevant to the contexts are present. These are likely to be descriptive, with limited application to the context. Where appropriate, some calculations are attempted; these are likely to contain errors and may not be relevant to the context. Results of the calculations are stated with little or no evaluation.
0	**0**	Nothing written worthy of credit.

AO2 Application:
Development B pays back significantly quicker – 8 years earlier, and has a higher net present value (NPV) – £2.776 million more. The life of the development is shorter, however project A has 15 years after payback to produce additional cashflow. Development B however is a significantly bigger project than Development A requiring additional finance of £44 million.

AO3 Analysis and Evaluation:
Availability of funds
Development size – will the company be able to raise the funds? Development B being almost 4 times more than the amount required for Development A. Would it be possible to split B into stages, maybe building houses first which will enable cash to be released for stage 2 the retail park? Would it be possible to get grants etc for Development A as being used for the good of the local community?

What are the plans at the end of the project, have cash inflows been considered? Maybe undertake sensitivity analysis if discount factor (DF) was to change.

Cost of land/site clearing etc – not relevant in decision making as sunk costs.

Reliability of cash flows
How reliable are the cashflows over the longer term – 35 years is a long time. What if eg the football team were promoted and were able to build their own stadium, alternative uses, are they dependent on one/all of the suggested users? Is there demand for retail parks – recently more people are shopping online.

Discount factor
Is the discount factor of 12% that is used for the current operations relevant for these developments? The proposed developments are different to what the company currently does both in the nature of the work and the geographical location. What effect will have a higher/lower discount factor have on the results calculated?

Other factors:

Non-financial:
The company currently operates out of London, whereas the proposed developments are geographically many miles away, will this cause issues as the projects are long term, especially if they are going to manage them? Will they manage the shopping complex themselves or will this be sold/leased?

Figures have been provided by the financial director (FD) – is there any conflict of interest? The FD is also a non-executive of the city's football club. Professional ethics – objectivity.

Development A may be seen as positive for the local community – improve the company standing in the community.

Development B – The company has experience of house building as this is what the company currently does. The out-of-town development could attract customers from the local independents in the city centre, which may cause the city centre shops to close. Would the local infrastructure be able to cope – is the out of town development on the park and ride route?

There were concerns about the initial planning application affecting the local hospitals/schools. The suggested 150 houses would likely be bought by people out of the area as they would not be affordable to locals on minimum wages. This would mean an increase in the population which would put additional strain on hospitals/schools.

Development A would increase employment in the city, which would help to reduce the unemployment levels. However, the proposed work is only part-time jobs, what the city needs is more full-time non-minimum wage jobs.
Are there any other uses of the site?
Could it be resold as it is now the planning been granted for development?

Limitations:
How reliable are the figures provided?
Basing the figures on developments in London might not be realistic for rural developments where wage rates are significantly lower.
The FD has an interest in the football club so the data provided for this development could be biased.

How will funds be raised? Possible impact on gearing or shareholders.

What is the cost of financing the developments? Has this been considered?

Does the company have the skills/experience to complete Development A – do they have the skills to run the venue, if not will they be able to recruit locally?

What are the plans for Development B, who would run this? Will this result in more full time jobs?

What is Tuor plc attitude to risk? This may have a significant impact on the final decision.

Overall evaluation:
Decision made as to which development (if any) to accept. Summary justification given to support decision.

Considered both financial and non-financial factors to reach decision.

Marker note:
The indicative content is not exhaustive: other creditworthy material should be awarded marks as appropriate.

Student responses

Response A

As we can see from the information given, the directors will need to take into account both financial and non financial factors when choosing ~~which of~~ the development. For example, from the data, we can see development B will have a much higher start up cost of £60 million in comparison ~~to~~ to development A's £16 million. There is a difference of £44 million between the start up costs which automatically makes development b the more risky option as there is more money to lose. However, it should taken into account, that Development B has a shorter payback period than development A. The payback period tells management and investors how long it will take for the costs of investment to be covered. In this case, development b will take 12 years whereas ~~A~~ A will take 20 years. This is a difference of 8 years which is a very long time despite being much more costly. This would suggest that development B is likely to be much more profitable than A. ~~Investors~~ However, it should be considered that payback periods does not take into account the time value of money and doesn't take into account discount factors ~~such~~ as whereas the ~~n~~ net present value does. The net present value also takes into account the timing of cash flows ~~and changes in~~ which may make the results more accurate as the value of money is always changing and rarely ever constant. As we can see from the data given, development B has a higher net present Value than A with a Value of £3.6 million compared to £824,000. This Should also make development B the more attractive option. However a limitation to ~~this method~~ the use of this information is that if the discount factors are ~~wrong~~, it inaccurate, it will lead to very inaccurate figures for the present values and net present Values. Also, the net present Value is a lot More difficult to understand in comparison to using pay back figures.

However, non financial factors should be taken into account when deciding which of the options to choose. These may include the effect on the stakeholders of the business. For example, it is likely that development A will have a more positive impact on the

Extra space local Community. This is due to the fact ~~there can be no~~ there is likely to be a lower level of pollution due to the Construction of one thing which in this case is the Stadium. Whereas high levels of pollution is likely ~~to~~ to occur during the production a large out of ~~town~~ town Shopping centre plus and additional 150 houses. Also, development A provides a college and Jobs for local residents who may have Struggles getting to work or college. This is likely to lead to an improved brand image for ~~T~~ Tvar plc boosting their reputation.

Overall, even though Development B is a higher risk, it seems as though it is the more profitable option in the shorter run. However the profitability is at the expense of brand image. However it may be considered that development A may be the better option since the life of this ~~p~~ project is likely to be longer so in the longer run, it could prove to be more profitable than B. Which development the directors choose overall depends on their objectives whether or not they are more focused on financial or non financial objectives.

This is a Level 2 response

This response considers both financial and non-financial factors in turn. The definitions of net present value (NPV) and payback are correct and the response also states some of the benefits and drawbacks of the methods. However, the arguments are under-developed and there is no attempt to use the data in the scenario for further calculations. There is one example of a wider context being considered when the response refers to potential pollution for each project.
A judgement is provided but there is reference to profitability which demonstrates a lack of understanding of investment appraisal as a technique. There is no consideration of the limitations of the data provided in the scenario.
Overall, a basic judgement is presented that is supported by a limited range of evidence.

9 marks

Response B

Development A and Development B can be firstly compared on the basis of initial investment. Development A's cost is £16 million and development B's cost ~~is~~ a significantly more, £60 million (£44 million more). without considering any other factors the cost of 60million is a huge investment and therefore makes development B more risky. It may cause initial cash flow problems. ~~because~~ we do not know the access that Tuor Plc have to financial funding - whether they could take out a long term loan of this magnitude or whether they would have to issue shares. In contrast, ~~dev~~ development (A) involves a lot less initial investment, with £16million required, this is less risky because less money is at stake and will also be easier to finance. Going with development A would, ~~benefited~~ if using a loan, keep gearing at ~~an~~ more optimal level, and if using share issue to finance, would ensure that Tuor owners kept control of the business.

Another aspect of comparison is the net present value of the project as a proportion of the initial investment. Development A is (824,000 ÷ 16,000,000 × 100) 5.15% and development B is (3.69 ÷ 60 × 100) 6%. ~~in the face of that~~ On this aspect then, development B has more value for Tuor over its lifetime, although the difference is relatively small. This difference must be taken into account with the length of the life of the project however, with development A lasting 35years and development B lasting 20 years. Because development B has more value and is over a shorter period of time this makes it attractive to ~~in~~ the directors of Tuor because they may ~~would a have seen~~ be looking at quick sources of revenue and would be looking to move on to other investments to grow the business. Tuor on the other hand may be looking for a more long term ~~term~~ source ~~of~~ of income to create a long term ~~cash~~ healthy cash flow. This is where development A is advantageous as it lasts for 35years and would be a regular inflow of ~~no~~ cash for the ~~bus~~ Tuor to rely on. Additionally, ~~the~~ although the pay back is longer on development A, (20 years) ~~a~~ in proportion to the amount of years the project lasts for it is actually making money for the business for a longer proportion of the project.

Development A = (35 - 20) ÷ 35 x 100 = 43%

Development B = (20 - 12) ÷ 20 x 100 = 40%

This means that, again, if Tuor want a more long term inflow, Development A is the better option.

Moving on to non-financial factors, Tuor has obviously come into conflict with the public and the council about their previous development plans. It would be good to know the public feeling towards Tuor to make a more informed decision, however perception suggests that the objections raised in the first application may have put Tuor in a bad light in the local community. Development A will provide jobs for 160 people in the local area which will be especially beneficiale ~~for them~~ because a lot of the locals are out of work or on minimum paid jobs. It will also benefit the local ~~co~~ community by promoting culture and togetherness through the ~~of~~ venues adaptability to as a stadium, ~~concert~~ music venue and conference hall. ~~The~~ Another benefit is the longer time it will

Extra space be operating for - 35 years - making it a reliable source of jobs for the forseeable future. Development B is also ~~likely~~ likely to provide jobs as there will be a large need for workers to operate the shopping complex. The large houses which are relatively expensive (900,000 on average) would be very expensive for the locals, especially as they are on minimum wages or are out of jobs. This unfortunately might cause resentment from the locals and may reignite the fear they had that people will move in from out of the area and take the jobs provided. Although it could be argued this would bring wealth into the area, ~~b~~ due to wealthy people buying the houses, the resentment caused by Tuor would not improve their reputation or public relations in the local community. Additionally to this the shopping complex may force the local high street shops out of business by competing at low prices and this would have a detrimental effect on the financial state of the town centre, maybe increasing unemployment.

Therefore, when taking all factors into consideration, although Development B has a high NPV and a shorter payback period providing financial benefits for Tyor, Development A is overwhelmingly a more suitable option as it has a long term cash flow benefit, has a less risky initial investment, and a significantly more ethical attitude towards the community. Although it would be good to know the cash flow and gearing situation of Tyor, as well as the directors attitude towards helping the local community, I can recommend, based on the information I have, that development A should be selected.

This is a Level 5 response

This response has a clear structure that considers each of the factors in turn ie the amount of investment, net present value (NPV), payback and then, non-financial factors.
There is a logical chain of reasoning provided for each argument that demonstrates a good understanding of the financial methods used. This is supported by use of the data from the scenario and additional calculations eg NPV as a percentage of the initial investment.
Limitations of the data and evidence from a wider context have been tackled alongside each factor eg the source of funding for the project.
A fully supported judgement is provided that includes reference to financial and non-financial factors and identifies further information that would be useful for this decision.
Overall, the response is balanced and uses a wide range of evidence, some relevant to the wider context. There is an insightful assessment of the limitations of the data.

23 marks

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