

**MANAGEMENT CASE STUDY FEBRUARY 2018 EXAM**  
**ANSWERS**

**Variant 2**

**The February 2018 exam can be viewed at**

<https://connect.cimaglobal.com/resources/february-2018-management-case-study-exam-variant-number-2>

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## Section 1

### Legacy systems

Abdhul's email indicates that we have a problem, but the difficulty is that Abdhul appears to be aware of the difficulties and seems to be addressing them effectively. That does not mean that the problem has been resolved, but the Payroll Section's actions are displacing it so that its effects are less visible. For example, it may be that time spent addressing problems may mean that other work is being delayed or overlooked.

The issues may not have particularly quantifiable results. If they create stress for Payroll Section staff then the cost to Nortan may arise from accelerated staff turnover, but that will be difficult to quantify. If Payroll is forced to carry additional staff in order to ensure that these delays and queries are dealt with then it could be difficult to identify the number of additional staff because Abdhul will be reluctant to see staff levels reduced.

One way to overcome the problems would be to identify the operating units that are responsible for problems, with a view to rectifying their systems. If discrepancies are randomly distributed throughout the Group then the problem may be due to operator error rather than software anomalies. In that case, the problems may be resolved by introducing more effective checks and balances

or by improving compliance with existing procedures so that operating units are forwarding fewer incorrect lists.

Another possibility would be to remit the problem of correcting any anomalies back to the operating units. If any differences or discrepancies are sent back to the operating units for correction then the operating units will have a greater incentive to identify the specific causes of difficulties and to address them. Ideally, that would enable minor modifications to systems to prevent a recurrence.

### **Transfer personnel files**

The first question is whether taking responsibility for managing personnel files would be consistent with FOSSC's mission of adding value for the rest of the Nortan Group. In principle, a centralised database could offer additional facilities that could have value in HR management, such as benchmarking staff numbers by grade in similar operating units. The creation of a Personnel Record Section would mean that a single system would have to be created for FOSSC, which may be more cost-effective than updating different versions of the systems across Nortan. That may lead to greater accuracy and efficiency for the Group as a whole.

There could be practical concerns about the consistency of different personnel file structures. Employment law in different countries could mean that different operating units have to maintain their personnel files differently. There may also be different attitudes towards the implications of maintaining personnel files overseas, with associated concerns about privacy and access to that data. The needs of each operating unit would have to be collated and a solution found for any differences in terms of local requirements.

Timing could also be an issue if Nortan is planning to restructure staff grades. It would make more sense to establish the new section to coincide with the introduction of the new staff grades so that there was no need to restructure the files and/or update all staff records to reflect the new grading system. Having a unified grading structure across the Group would strengthen the case for centralising record keeping at FOSSC. It may be that the establishment of the new Section could be linked to the development of the grading so that any potential for duplicating effort is minimised.

## Section 2

### Consolidation

The consolidated financial statements require all intra-group transactions to be cancelled. Nortan is an integrated oil business that is involved in every stage of making money from oil, from extraction to retailing the final product. It is reasonable to believe that there is a vast number of transactions and that a discrepancy of 2% of this total will make a material difference to the figures as a whole. Some group members could trade almost exclusively with other subsidiaries, so the difference is almost certainly material.

Any errors in cancelling sales could lead to the misstatement of Nortan Group profits. There could also be errors in the valuation of inventory if the realised profit element of the closing figure is incorrect and the wrong amount is cancelled. The discrepancies on intra-group receivables and payables could lead to an invalid entry being made in the statement of financial position. There could be some offset in terms of under and overstatements of both revenues and costs, but it is highly unlikely that the net effect on profit will be zero.

These errors could be difficult to identify fully because inter-company transactions will often disagree because of timing differences and so there is always a need for a reconciliation. Group members may be reluctant to accept adjustments or corrections that are against them and so finalising the differences may prove complicated. Differences may have been transferred to other accounts by the subsidiaries that have benefitted so that they can maintain the status quo. The overall effect may be to overstate Group profits when these erroneous figures are consolidated.

### Risks and ethical implications

The principal risk is that the adjustments will affect the truth and fairness (or fair presentation) of the financial statements. That could undermine shareholder confidence in the figures if Nortan's external auditors refuse to accept these adjustments as satisfactory and report their concerns. That might undermine confidence in Nortan's Board and could lead to a fall in the share price.

There could be tax problems if some of the adjustments move profits between countries. The country that is being overpaid will undoubtedly accept that overpayment without complaint. The country that is being underpaid may levy penalties that will involve both a financial burden and a great deal of adverse publicity for Nortan.

The ethical implication could be attributed to a lack of integrity because the Chairman is not being straightforward and honest. The bookkeeping records contain errors and the Chairman has suggested a correction that amounts to a careless and potentially inaccurate adjustment that could leave the financial statements misstated. The Board has a formal duty to prepare accurate financial statements and the proposed correction leaves the Board in breach of that duty.

The suggestion also leaves the Board in breach of the principle of professional competence and due care because the adjustment is not being based on a satisfactory investigation and correction. Ideally, the Board should investigate the software issues that created the problem and identify the operating units that have used the damaged software. That would then enable Norton to, at least, identify those Group members whose figures are likely to be correct and that would simplify the process of making an accurate correction.

## Section 3

### Interpretation and WACC

This investment will increase intangible assets. That will require an immediate increase in capital employed because the cost of the investment will have to be funded by raising either debt or equity. In the short term, that will reduce return on capital employed because capital employed will increase. There will be a further loss if the existing software has to be written off as a loss because it is unlikely that Nortan will be able to sell or otherwise recover those costs.

As time passes, the software will be amortised, thereby reducing operating profit, which will further reduce ROCE. In the longer term, the effects on ratios will depend on the extent to which Amber's expectations are justified. If the new software delivers the expected benefits then it is to be hoped that revenues will increase and/or operating expenses decrease to offset the amortisation on the new software. The overall impact on ratios will depend of whether the net gain in efficiencies is sufficient to offset the proportionate increase in capital employed.

The impact on WACC depends on the shareholders' understanding of the investment on the cost of equity. If operating profit declines then future dividend payments could be reduced and the evaluation of the cost of equity using, say, the dividend growth model will be affected. If the shareholders apply a dividend-based or earnings based model to Nortan's equity then this investment could see the cost of equity increase, thereby increasing WACC.

If the shareholders take the time and effort to evaluate the business logic behind this investment then they may take a longer term view of future dividends and growth. If they anticipate a less risky and more profitable future then they may disregard the short-term damage to ROCE and the cost of equity and so WACC could fall. That impact could be further affected by the manner in which the funding is raised. If Nortan borrows then the proportion of debt in long-term finance will increase and WACC should decrease slightly.

### Payback and future development

Payback has a number of limitations, the most significant of which is the fact that it ignores the time value of money. Apart from anything else, that means that payback ignores the relationship between the investment and the impact on shareholder wealth, which undermines payback from a theoretical perspective. Payback also ignores the cash flows that occur after the initial investment has been recovered.

Arguably, these limitations are of little relevance to this project. Firstly, if Amber has evaluated the future cash flows in a formal manner and can see that there is a short payback then the time value of money has less relevance. If there is a short payback with a strong positive cash flow ongoing into the future then it is reasonable to take it for granted that this is a positive NPV project. Ignoring the cash flows after the payback is also less of an issue here because we are not comparing projects on the basis of their payback. Nortan will either upgrade

its systems or it won't. If there is sufficient information in the payback criterion to justify the investment then any further inflows are a bonus.

In terms of implementing strategy, the most crucial issue is that Nortan is a vertically integrated group of companies. Ideally, the Group's strategy should aim to maximise the synergy between operating units, which implies that it would be desirable for their systems to be standardised and capable of sharing data. The fact that Nortan has reached its present position suggests that improved systems are not strictly necessary, but they could only enhance collaboration and cooperation.

Improving standardisation could offer opportunities for FOSSC to enhance its services in order to further integrate operating units. For example, having a single standard for the analysis of geological data could permit FOSSC to manage the data processing aspect, thereby creating a more coherent overview of Nortan's reserves. It could also make it easier for operating units to share expertise if all professionals are able to count on the same standardised systems.

## Section 4

### Internal benchmarking

Benchmarking would be complicated in this case because of the different decision criteria that are apparent in comparing the performance of different operating units. For example, we would have to establish whether the units that aim to have the latest and best software actually deliver greater value than those who do not. Constantly upgrading software involves both a financial cost and the need to adapt procedures and learn to use the new capabilities. As part of the benchmarking exercise, we would have to establish which approach appears to be the more cost-effective, otherwise we cannot tell which unit should set the benchmark for the rest.

We need to make a further decision with regard to the likelihood that we can and should set benchmarks. We could conclude that some operating units have overspent on unnecessary upgrades because of a desire to have the latest technology or in order to use up budget slack. In that case, benchmarking would have limited relevance because it would be an unnecessary expense to buy the latest and best software for the operating units that have chosen not to invest. Such benchmarking could leave similar operating units with incompatible software systems, at least until such time as it became cost-effective for all to upgrade.

It appears that initial findings have revealed patterns that would make benchmarking helpful with regard to spending patterns. For example, the operating units that appear to economise on basics such as accounting or other administrative systems may be unable to afford necessary specialist software otherwise. There may be false economies causing inefficiencies and other problems and so it may be beneficial for Norton to have separate budgets for each category of software. Equally, there may be dysfunctional behaviour in terms of the manner in which software budgets are being allocated, suggesting that there ought to be greater control from the parent.

### Project management

FOSSC is well placed to manage this project because it already has a strong relationship with every operating unit and so, hopefully, understands its business and its information needs. FOSSC has expertise in IT management and also in project management and so should be able to manage the project effectively. The disruption for individual operating units will be minimised if FOSSC takes over the responsibility for managing any upgrades.

Centralising the project management may offer economies of scale, such as buying blocks of licences for new software and, hopefully, obtaining discounts in the process. FOSSC will also be able to develop an understanding of the difficulties associated with upgrading each of the common software packages and should be able to offer effective solutions. FOSSC will also be better equipped to integrate the new systems at the operating units with those in use at FOSSC.

There could be a concern that FOSSC is overstretching itself. The Projects Section is staffed to manage individual projects as they arise, but this could effectively require 230 systems to be upgraded and each may require a separate project team. Also, FOSSC may not have sufficient IT experts to manage the systems aspects of each upgrade while staying abreast of the ongoing commitments associated with routine operations.

There may be a lack of trust if operating unit managers are concerned that FOSSC is attempting to make a case for it taking over more of the Group's infrastructure. That may not necessarily be a bad thing from the Group's perspective, but it will leave the operating unit managers with less autonomy and smaller budgets. That concern could be addressed by making a formal announcement to the effect that FOSSC's role has been restricted to the implementation and that no further duties will be taken over. It would also help if focus from FOSSC was on the project management side, collaborating with IT professionals at the operating units.