
Internal Audit report – Financial Modelling

Executive Summary

As part of the 2020-21 Internal Audit Plan as approved by the Committee, BDO LLP have undertaken a review of the HCPC's Risk Management. The report was originally due to be considered at Audit and Risk Assurance Committee's June meeting, but was delayed due to HCPC personnel changes.

The objective of the audit was to provide assurance that HCPC's financial models are sound and constructed using appropriate data, methods and assumptions. The review was focussed on the effectiveness and efficacy of the financial models, and how appropriate these are as tools to forecast HCPC's financial performance.

Previous consideration	None.
Decision	The Committee is invited to discuss the report.
Next steps	Recommended actions agreed with the Executive will be tracked for progress in the Committee's standing recommendation tracker report.
Strategic priority	All
Risk	<ul style="list-style-type: none">• Financial modelling spreadsheets are supported by detailed guidance notes on their operation.• Spreadsheets used for financial modelling are free from error and formulae are applied consistently.• HCPC's methods and approach to identifying and allocating costs within the Cost Model result in an accurate picture of HCPC's costs, and where the costs are incurred.• Income assumptions are reasonable or can be supported by detailed workings or independent approvals.• Inflationary assumptions are appropriate and represent a fair estimate of increases and decreases to key variables.• Financial modelling spreadsheets are promptly and accurately updated with actual performance information.• Models produce accurate forecasts as assumptions are updated following analysis of actual performance.

Financial and
resource
implications

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The cost of the audit is included in the Internal Audit annual fee.

Author BDO LLP
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HEALTH & CARE PROFESSIONS COUNCIL

INTERNAL AUDIT REPORT - FINAL REPORT

FINANCIAL MODELLING
SEPTEMBER 2021



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Document history			Distribution	
FINAL Report	[00296398]	09/09/2021	Health & Care Professions Council	[current version]

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Reviewed by: Bill Mitchell

1 Executive Summary

Introduction

- 1.1 As part of the Health & Care Professions Council (HCPC) internal audit plan for 2020/21, as approved by the Audit Risk & Assurance Committee, we have undertaken an audit of the Financial Modelling process.
- 1.2 HCPC has recently revised its financial models, which are used to forecast the organisation's future financial income and costs. There are separate income and cost models which have been prepared by third party contractors and are maintained in-house by HCPC's Head of Financial Planning and Analysis. The models having been built using Microsoft Excel spreadsheets.
- 1.3 The Income Model predicts income separately for 20 professions with a 24 month registration cycle and other assumptions specific to how each profession pays for registration (e.g. fee costs, discounts and removal or re-admission percentages), and also makes assumptions for the total number of registrants. The model can then generate a series of data outputs, including reports to account for the deferred income and for financial and management accounting purposes. A User Documentation guide has been prepared by the Head of Financial Planning and Analysis to detail how the Income Model operates. The Income Model produces forecasts for 11 years into the future.
- 1.4 The Budget Costs Model models costs for the current financial year and is constructed following the costs structures set out in HCPC's financial chart of accounts. Budget and forecast figures are entered into the model which then separates and allocates costs to different departments. Each quarter data is downloaded from HCPC's finance systems with actual costs uploaded into the model to forecast the remaining costs expected in the financial year. In this way the model operates as a monitoring and variance analysis tool, rather than a tool to forecast HCPC's costs in future years.

Review objectives and approach

- 1.5 The objective of the audit was to provide assurance that HCPC's financial models are sound and constructed using appropriate data, methods and assumptions. The review was focussed on the effectiveness and efficacy of the financial models, and how appropriate these are as tools to forecast HCPC's financial performance. The specific risk areas for this review were whether:
 - Financial modelling spreadsheets are supported by detailed guidance notes on their operation.
 - Spreadsheets used for financial modelling are free from error and formulae are applied consistently.
 - HCPC's methods and approach to identifying and allocating costs within the Cost Model result in an accurate picture of HCPC's costs, and where the costs are incurred.
 - Income assumptions are reasonable or can be supported by detailed workings or independent approvals.
 - Inflationary assumptions are appropriate and represent a fair estimate of increases and decreases to key variables.
 - Financial modelling spreadsheets are promptly and accurately updated with actual performance information.
 - Models produce accurate forecasts as assumptions are updated following analysis of actual performance.
- 1.6 The scope of this assignment was limited to a review of how the models have been created, the quality of guidance documents to support the models' operation, and an assessment of steps taken to determine the accuracy of the models by comparison to actual performance information. We conducted detailed testing over the income model spreadsheet to assess if the model behaved as expected, however this audit was not a technical validation of every element of the model or the models' outputs.

- 1.7 We conducted a high-level assessment of HCPC's overall approach to financial modelling and assess to what extent good practice modelling conventions have been followed, including whether or not seeking independent technical validation is appropriate.
- 1.8 We conducted detailed interviews with key staff involved in the creation and maintenance of the models, and sought to establish whether a reasonable approach has been adopted in setting out the financial modelling structure and that whether variables and inflationary figures have been identified with the input of relevant HCPC operational staff.

Key conclusions



Significant weaknesses have been identified in the control framework or non-compliance with controls which put achievement of system objectives at risk. Remedial action should be taken promptly.

- 1.9 Overall HCPC's approach to financial modelling requires improvement if financial models are to be used as a tool to effectively forecast the organisation's income and expenses.

Income

- 1.10 HCPC has an Income Model which is supported by a detailed guidance document. This model predicts future income by making assumptions about registrant numbers, registration behaviours and registration/renewal fees. As a result of our review of the model, although we found some discrepancies with how the model, as a tool is constructed, these discrepancies were unlikely to result in a material difference or error in calculations. However, there were a number of other areas associated with this tool which give rise to risks that HCPC's multi-year financial projections are unreliable.
- 1.11 Information used to justify some of the original inputs or assumptions within the model, including any inflationary assumptions to produce future-year figures, is not subject to an independent review or approval. This increases risks that key variables and assumptions within the model are not accurate or are not well-understood. Whenever source information is entered into models it is advised that this is independently reviewed and approved by EMT and Council, with a clear record of what information is being inputted and where that information originated from.
- 1.12 Following the move from Net Regulate (the previous registrations system) to Business Central and Dynamics CRM, issues have emerged with how live data is uploaded into the Income Model. This used to occur on a monthly basis but has not occurred since October 2020. The Income Model has been designed to receive data in a format exported from the old Net Regulate system. The new systems export data reports on registrants and fees in a different way, and these are expected to require some manual manipulation prior to being in a format that can be readily uploaded into the model. This creates additional risks that data inputs into the model contain errors. Producing data reports which minimise manual intervention to upload into the Income Model should be prioritised. In the interim a detailed work-around should be introduced so that accurate forecasting of HCPC's income can be resumed.
- 1.13 We conducted some testing over registrant numbers, projected from October 2020 to April 2021 in the Income Model against live figures of registrants as at April 2021. We found that current assumptions within the model on changes to registrant numbers appeared to be inaccurately forecasting total registrant numbers with an expected impact on projected income. The model was predicting 20,000 more UK registrants across all professions by April 2021 than real data indicated.
- 1.14 We discussed this with management and found that there is no standard annual practice to compare HCPC's models' projected outputs with actual performance information at the end of the year. This is a commonly conducted activity because it helps organisations validate how well the models perform in practice. In doing

so a variance analysis exercise can identify which variable assumptions have been accurate and which ones require refinement. In this way the models can be continuously adjusted to be as accurate as possible.

Expenditure

- 1.15 HCPC's Budget Costs Model primarily uses costs codes from the General Ledger. These break down costs by type and department. On a monthly basis the Head of Financial Planning and Analysis meets with budget holders to go through the YTD and forecast budgets to explore variances to identify whether these are due to the forecasts or costs spreadsheets.
- 1.16 From our review of budget setting spreadsheets and consolidated budgets spreadsheets we confirmed that the format of the Budget Costs Model spreadsheet is using account codes from HCPC's chart of accounts. In this way risks that costs are wrongly classified are controlled in the same way as the ordinary budget setting process.
- 1.17 Whilst HCPC has a Budget Costs Model, which is used to conduct monthly variance analysis over budgeting information exported from the finance system Sage, HCPC does not currently have costs forecasting models aimed at modelling and predicting future years' costs. Modelling an organisation's costs into the future is an essential element of financial planning and forecasting, as comparing anticipated income against anticipated costs gives an estimate of the organisation's long-term financial viability.
- 1.18 Each year a financial planning exercise should be undertaken where both the income and costs models are updated with their latest assumptions, with the outputs presented to Council for review. These should also be subjected to sensitivity analysis / stress testing so that HCPC can identify which variables have the greatest impact on the organisation's financial health.
- 1.19 From our audit work we have made four "Priority 1" recommendations and six "Priority 2" recommendations:

"Priority 1" recommendations

- HCPC should develop a costs forecasting model and introduce an annual costs forecasting process where costs and income are projected together.
- The assumptions that drive registrant numbers should be carefully reviewed with reference to April 2021 figures.
- The way in which data is exported from the new Business Central and Dynamics CRM systems should be assessed with a view to resuming regular updates to the Income Model using actual performance information.
- HCPC should conduct an annual exercise to compare the initial projections within models to assess how accurately the models make predictions during the year. Key variances should be understood with a view to iterative improvements made to models each year to improve accuracy.

"Priority 2" recommendations

- HCPC should prepare a detailed guidance document for the Budget Costs Model to support staff with its operation.
- HCPC should update and make corrections to the Income model as identified from our technical testing.
- Registration behaviours for different professions should be reviewed annually with reference to supporting evidence and future predictions and trends (eg known student pipeline numbers).
- Whenever source information is relied upon when updating the models, this should be retained to support any future analysis or modification of the model's assumptions.
- Key financial inputs and inflationary assumptions should be decided upon annual and subjected to a review and approval process by EMT.

- HCPC should model a modest fee increase within the Income Model in line with an agreed and appropriate inflationary amount.

Recommendations summary table

1.20 The following table summarises the recommendations made across the key risks audited, grouped by priority ratings:

Key risk area	Rating		Recommendation Priority rating		
	1	2	3	4	5
1 Financial modelling spreadsheets are supported by detailed guidance notes on their operation	Green	Amber	-	1	-
2 Spreadsheets used for financial modelling are free from error and formulae are applied consistently	Green	Amber	-	1	-
3 HCPC’s methods and approach to identifying and allocating costs within the Cost Model result in an accurate picture of HCPC’s costs, and where the costs are incurred	Red		1	-	-
4 Income assumptions are reasonable or can be supported by detailed workings or independent approvals	Amber		-	3	-
5 Inflationary assumptions are appropriate and represent a fair estimate of increases and decreases to key variables	Amber	Red	1	1	-
6 Financial modelling spreadsheets are promptly and accurately updated with actual performance information.	Amber	Red	1	-	-
7 Models produce inaccurate forecasts as assumptions are updated following analysis of actual performance	Red		1	-	-
Total recommendations made			4	6	-

1.21 The following tables in Section 2 Key Findings show the results of our analysis by each key risk area. Areas for improvement are highlighted with the key recommendations in the right-hand columns.

2 Key Findings

Key Risk Area 1: Financial modelling spreadsheets are supported by detailed guidance

Assessment:

Green Amber

Background

Financial modelling spreadsheets can often be highly technically complex and only able to be operated by individuals trained and experienced in their use. As financial models are often bespoke to the organisation each modelling spreadsheet should ideally be accompanied by detailed instructions on how the model operates and also how to obtain, prepare and download input data into the model itself.

Findings & implication

Positive findings

- An Income Model guidance document has been prepared which provides an overview of the operation of the Income Model. The documentation details, among other relevant areas, terminology, a description of income, operation of the model spreadsheet, performing the data outputs and a technical description of formulae. This document provides satisfactory background and instruction on how to use the model, and accurately reflects the operation of the spreadsheet.
- The budget costs model contains an "i.instructions" tab which contains detailed process maps and flow charts covering the end-to-end operation of the model.

Areas for improvement and implication

- Unlike the Income Model, the Budget Costs Model is not supported by a narrative document setting out how to use the model, but more crucially, how the model functions from a technical perspective. This creates a risk that should existing staff, who are familiar with its design and operation, leave the business, knowledge of how to prepare inputs, maintain the model, and produce outputs could be lost.

Recommendation

1. HCPC should prepare a detailed guidance / technical document for the Budget Costs Model, in the same way as prepared for the Income Model.

The preparation of this document should support the already existing flow charts within the model itself, and focus on how the model technically operates. This will support ensuring that the Business Central system performs the same functions (as these will be documented and so can be checked) and, in the event to delays to the implementation of Business Central's functions in this area, support the ongoing operation of the model if needed.

Priority 2



Management response

Accept -The instructions tab was part of the design of the budget costs model as it was intended as a short-term reporting fix until the variance analysis could be built-into the financial accounting systems. It was the intention that the budget reporting function within the Business Central system could be used as part of the consolidation of finance systems.

Findings & implication	Recommendation
	<p>If the financial accounting systems have not got the required functionality by the end of the 21-22 financial year, then we will need to assess the validity of using the model.</p> <p>Action: Recommendation to be reviewed in Q4 FY21/22 in light of progress on systems developments</p> <p>Action Owner: Head of Finance</p> <p>Completion date: Feb 2022</p>

Key Risk Area 2: Spreadsheets errors and formulae consistency

Assessment:

Green Amber

Background

The financial models used are highly technical spreadsheet models and reliance is placed upon their correct operation when using the outputs from the models for business purposes. Where spreadsheets contain technical errors these can sometimes cause issues with a model's operation resulting in inaccurate forecasts being produced.

Findings & implication

Positive findings

- We conducted some detailed technical testing of the Income Model and noted the following areas of testing where no issues were found:
 - a. The model contains monthly assumptions for new registrant volumes based on seasonalities during the year. The sum totals of the seasonalities per profession equalled 100% as expected, with the numbers correctly pulling through to the model calculations.
 - b. Spreadsheet formulae used to calculate registrant numbers appeared to be logical.
 - c. We spot checked other formulae from the assumptions tabs within the model and found no issues.
 - d. We traced back financial statements reports back to financial statements for individual professions and found no issues with this linking within the model.
 - e. We conducted sensitivity analysis by changing registrant numbers and assumptions and noted that changes to registrant income correlated with changes to variables as expected.
- We conducted a walkthrough of the Budget Costs Model and the operation of internal controls and testing tabs with the Financial Planning and Analysis Officer. As a result of this walkthrough we identified no issues with the logical structure of the Budget Costs Model.

Areas for improvement & implication

- There were some areas following technical review of the Income Model where discrepancies within the model itself could give rise to non-material differences in calculations. Specifically:
 - a. Readmission fees for arts therapists are recorded as "AT" within the 'Assumps_Financials' tab, while the code on the 'Assumps_Main' tab is "AS". As a result, readmission fees are not picked up on 'Engine_Reports' calculations

Recommendation

2. HCPC should update and make corrections to the Income Model as identified from our technical review.

Priority 2



Management response

Accept - The Income Model reviewed was a working prototype that had not completed testing. Development of the model was stopped as the development and testing resources were diverted to resolving operational issues. Initial testing of the WIP model indicated that it could produce forecasts with an acceptable degree of accuracy for budgeting.

Action: When appointed the Head of Finance will review the priorities for finance department improvements.

Action Owner: Head of Finance

Completion date Feb 2022

Findings & implication	Recommendation
<ul style="list-style-type: none">b. UK scrutiny fees for paramedics are not detected because the code on the 'Assumps_Financials' tab is recorded as "PA " (i.e. with a space at the end). As a result, scrutiny fees for paramedics are not picked up on 'Engine_Rports' calculations for active professionc. In respect on UK scrutiny fees, the first three occupations (CS, AS, CH) are listed in a different order to the other fee categories (readmission fees and international scrutiny fees). While we have no reason to believe there is any error here, but inconsistent ordering presents a low-level risk of error to the accuracy of the model• We also noted the following areas where minor enhancements could be made to the model:<ul style="list-style-type: none">a. Add a table of total registrant numbers to reconcile against totals from 'Assumps_RegNums' tab. This will help internally check that information has been carried through the model correctly.b. There is an inconsistent date format on the graphs at the bottom of the worksheet which could cause confusion.c. A check should be developed in the spreadsheet to automatically check that seasonality factors (where assumptions are made about when, during the calendar year, registrants are added) add up to 100%.	

Key Risk Area 3: Methods and approach to identifying and allocating costs within the Cost Model

Assessment:

Red

Background

Allocating costs in a way that is consistent with an organisation’s accounting systems is important with any costs model as it allows for meaningful comparisons with actual costs incurred. The same is true for identifying categories of costs when making projections. Ordinarily costs modelling reflects the budget setting process when setting and monitoring costs. Modelling an organisation’s costs into the future is an essential element of financial planning and forecasting, as by comparing anticipated income against anticipated costs gives an estimate of the organisation’s long-term financial viability.

Findings & implication

Positive findings

- The Budget Costs Model primarily uses costs codes from the General Ledger. These break down costs by type and department. On a monthly basis the Head of Financial Planning and Analysis meets with budget holders to go through the YTD and forecast budgets to explore variances to identify whether these are due to the forecasts or costs spreadsheets.
- From our review of budget setting spreadsheets and consolidated budgets spreadsheets we confirmed that the format of the Budget Costs Model spreadsheet is using account codes from HCPC's chart of accounts. In this way risks that costs are wrongly classified are controlled in the same way as the ordinary budget setting process.
- We selected a sample of 5 budget areas to review evidence of central scrutiny over submitted budgets, including whether costs have been correctly classified. We obtained evidence and confirmed that there is central scrutiny / assistance by finance in the budget figures, and also confirmed that the format of the budget setting exercise was consistent with the structure of the costs model spreadsheet.

Areas for improvement & implication

- While HCPC has a Budget Costs Model which is used to monitor performance against budget for the current financial year, HCPC does not currently have an operating costs model to forecast and inflate costs into future years. By only projecting its income forwards using inflationary and operational assumptions, HCPC does not have a complete picture of the organisation's financial health as if costs were estimated to increase at a higher rate than income, there would come a time where HCPC's income would not be sufficient to cover its operational costs.

Recommendation

3. HCPC should develop and introduce a costs forecasting model which estimates its costs into future years. This model should be designed to complement the Income Model and set out key assumptions and variables, each of which can be independently configured.
Each year a financial planning exercise should be undertaken where both the income and costs models are updated with their latest assumptions with the outputs presented to Council for review. These should also be subjected to sensitivity analysis / stress testing so that HCPC can identify which variables have the greatest impact on the organisation’s financial health.

Priority 1



Management response

Accept - The recommendations are outside the design scope of the budget cost model. The development of a robust cost model, particularly for FTP, is a priority given that FTP cases can take a few years to conclude.

Action: The Exec Director of Corporate Services, when appointed will need to review the complete budgeting process.

Action Owner: Exec Director of Corporate Services

Completion date Dec 2021

Key Risk Area 4: Income assumptions are reasonable and supported by detailed workings and independent approvals

Assessment:

Amber

Background

When designing financial models to project the financial health of an organisation it is important that key initial assumptions, particularly those which relate to income, are reasonable and can ideally be supported by either detailed workings or were obtained from an independent source. Small errors in starting assumptions, particularly those which are modelled to inflate in future years, can have large impacts on the accuracy of models in future periods. The Income Model has two key financial inputs; the number of registrants for each profession, and the fees charged for various stages of the registration process (eg initial registration, renewal and scrutiny fees).

Findings & implication

Positive findings

- Cost prices associated with registration (eg renewal and scrutiny fees) are fixed and are the same for each of HCPC's regulated professions. These fees are set out on HCPC's website. For a sample of these costs for a selection of 5 professions we successfully traced these back to HCPC's website to confirm they were entered into the model correctly.

Areas for improvement & implication

- There are other assumptions within the model and these are set out as percentages of changes in registrants, or those who either re-admit, miss their admissions windows and pay using Direct Debits. These assumed levels are stated as percentages of registrant numbers and are set at the same level for all professions. This indicates that they are unlikely to have been set based on analysis of actual behaviours observed from different professions.
- We were also unable to verify the sources of these assumptions as original records to support them have not been retained. We were also informed that these original assumptions had not been independently reviewed or authorised prior to upload into the model.

Recommendation

4. Registration behaviours for different professions should be reviewed annually with reference to supporting evidence and set for each specific profession rather than a generalised approach for all professions.
5. As part of each annual update to the Income Model, whenever source information is relied upon, this source information should be retained to support any future analysis or modification to the model's assumptions to produce more accurate outputs.
6. Key financial inputs and inflationary assumptions should be subjected to an annual review and approval process by HCPC's EMT in advance of the model being updated.

All Priority 2



Management response

Accept- A working group has been established to review the assumptions and processes for registrant number assumptions. This group would also have responsibility for the annual review of the planning assumptions so as to improve forecasting accuracy. The planning assumptions will be submitted to ELT for approval, with a particular focus on the 'leaf of faith' assumptions such as fee increase.

Action: Working Group has been established

Findings & implication	Recommendation
	Action Owner: Head of Governance Completion date

Key Risk Area 5: Inflationary assumptions are appropriate and represent a fair estimate of increases and decreases to key variables

Assessment:

Amber

Red

Background

As financial models aim to make predictions over a number of future periods, it is important that inflationary assumptions are appropriate and represent a fair estimate of any expected changes to variables. Without control over inflationary assumptions small errors in models can be compounded in future time periods resulting in material discrepancies emerging when making future projections.

Findings & implication

Areas for improvement & implication

- The Income Model projects registrant numbers into the future. We compared the October model's assumptions of the total number of UK registrants as at 1 April 2021 (the last time the model was updated with live information) to a report showing actual registrant numbers as at that date to compare figures as a way of assessing how well the model predicts changes. We found that, for a sample of five professions, the model's predictions ranged from -11% to +6.5% from actual numbers. When compared against total UK registrant numbers the model predicted a total of 276k registrants compared to an actual figure of 258k as at April 2021. This indicates that inflationary assumptions relating to registrant numbers are not set correctly within the model. The table below sets out our testing. Where the model inaccurately forecasts future registrant numbers there is a risk that income figures (which derive from registrant numbers) are overstated.

Profession	Total UK registrants within model as projected at 1 April 2021	Total UK registrants as at 1 April 2021	% difference
Clinical Scientists	6,235	5,862	-6.0%
Dietitian	9,662	8,907	-7.8%
Paramedics	29,027	30,914	+6.5%
Radiographers	34,737	30,851	-11.2%
Arts Therapists	4,511	4,637	+2.8%
Total registrants	275,766	258,468	-6.3%

Recommendation

- The assumptions which drive changes to registrant numbers should be carefully reviewed as the Income Model, after six months (October 2020 to April 2021) already shows material differences between projected and actual registrant numbers.
Priority 1
- HCPC should model a modest fee increase within the Income Model to aid the model more accurately predict income. This can either be estimated using an agreed inflationary assumption (accepting that HCPC's fee rules do not use this) or by modelling a flat increase after a certain period of time (for example every five years).
Priority 2



Management response

Accept - A working group has been established to review the assumptions and processes for registrant number assumptions.
Action: Working Group has been established

Findings & implication	Recommendation
<ul style="list-style-type: none">• While HCPC has taken a prudent approach to not inflating its fees within the Income Model, and while HCPC does not have direct control over all of its fees, this is nonetheless unlikely to accurately reflect HCPC's fees over the coming years. Indeed we understand that HCPC will be increasing its fees from 1 July 2021. If all other variables have been accurately modelled this could result in HCPC's income being understated within the Income Model.• Similar to main inputs for the Income Model (see Key Risk Area 4 above) Inflationary assumptions are not subject to an independent review / approval prior to being uploaded into the Income Model.	<p>Action Owner: Head of Governance Completion date</p> <p>Accept - The income model was designed to model specific fee scenarios being proposed. It is a priority for Council to have a Fee Strategy in place and this requirement is linked to delivering the understanding of the impact of Fee Increase Options.</p> <p>Action: Continue to develop and refine the Options Analysis function.</p> <p>Action Owner: Head of Finance Completion date: March 2022</p>

Key Risk Area 6: Financial model updates timely and accurate

Assessment:

Amber

Red

Background

When actual performance information can be obtained from finance and registrations systems updating financial models with the latest real figures is important to keep the models' projections as accurate as possible. The models should therefore be promptly updated, preferably using a data format which mirrors the outputs of key operational systems so that risks associated with the manual manipulation of data are reduced.

Findings & implication

Positive findings

- The Budget Costs Model is updated on a monthly basis by the Financial Planning and Analysis Officer by taking a data download from the Sage finance system's Trial Balance and uploading this into the model. We walked through this exercise being performed in line with the process flow charts contained within the model spreadsheet itself.

Areas for improvement & implication

- We were informed that an emerging issue with the move from Net Regulate to Business Central is that the Income Model has been designed to receive data in a format exported from the old Net Regulate system. The new systems export data reports on registrants and fees in a different way, and these are expected to require some manual manipulation prior to being in a format that can be readily uploaded into the model. This creates additional risks that data inputs into the model contain errors.
- As a result, the Income Model has not been updated with actual registrations or income data since the move away from Net Regulate in October 2020. The Income Model therefore does not give a currently accurate picture of registrant numbers, nor does it set out the anticipated fee increase from July 2021 onwards. Without an accurate picture of HCPC's future income there are risks and challenges associated with having a clear picture over the organisation's financial health.

Recommendation

- The way in which data is exported from the new Business Central system should be assessed in the context of obtaining information in a format capable of easy uploading into the Income Model to keep its information as up-to-date as possible.

Where a technical solution is being developed, an interim process should be introduced to facilitate keeping the Income Model updated with live performance data. A consistent approach should be decided upon, documented and then followed to resume the practice of updating the Income Model on a monthly basis.

Priority 1



Management response

Accept- the Income model was built prior to the new Registration System go-live and therefore was built to accept NetRegulate data. The development of the Registration System export / model input routines need to be completed.

Action: Aligned to completing the model development.

Action Owner: Head of Finance

Completion date Feb 2022

Key Risk Area 8: Model assumptions reflecting analysis of actual performance

Assessment:

Red

Background

One way in which organisations continually review and update their financial models is to conduct an annual exercise comparing how well the model made a projection at the start of the year with the end-of-year actual figures. In doing so a variance analysis exercise can be performed to seek to identify which variable assumptions have been accurate and which ones require refinement. In this way the models can be continuously adjusted to be as accurate as possible.

Findings & implication

Areas for improvement & implication

- As part of good practice processes relating to financial models, it is common to conduct an annual review comparing income or cost models' original projections for the year against the year's actual performance. By conducting a variance analysis exercise an organisation can determine whether the models' inputs or assumptions (or a combination of both) gave rise to the year-end difference. This can then help to target iterative improvements to models so that they produce more accurate forecasts going forward.
HCPC does not currently conduct an annual exercise comparing income projections at the start of the year with actual performance as a way of constantly improving the accuracy of the Income Model. As a result the assumptions in the income model are not tested on a regular basis so errors/inaccuracies in assumptions will be carried forward.

Recommendation

- HCPC should conduct an annual exercise to compare the initial projections of a Costs Model (once created) and the Income Model with final year actual performance.
A detailed variance analysis should be undertaken of each variable (e.g. registrant numbers or costs inflation) with a view to understanding whether the model's projections were within a reasonable tolerance for variance, or the variance was sufficiently large to indicate whether projections were inaccurate from the outset.

Priority 1



Management response

Accept - For the Income Model, a working group has been established to review the assumptions and processes for registrant number assumptions.
It would be expected that any cost model development should have the ability to iteratively improve its accuracy through lessons learned and variance analysis.
Action: Working Group has been established
Action Owner: Head of Governance
Completion date

A Audit objectives, Risks & Scope

Terms of reference	
Objectives	The objective of the audit is to provide assurance that the HCPC's financial models are sound and constructed using appropriate data, methods and assumptions.
Key risk areas	<ul style="list-style-type: none"> Financial modelling spreadsheets are supported by detailed guidance notes on their operation. Spreadsheets used for financial modelling are free from error and formulae are applied consistently. HCPC's methods and approach to identifying and allocating costs within the Cost Model result in an accurate picture of HCPC's costs, and where the costs are incurred. Income assumptions are reasonable or can be supported by detailed workings or independent approvals. Inflationary assumptions are appropriate and represent a fair estimate of increases and decreases to key variables. Financial modelling spreadsheets are promptly and accurately updated with actual performance information. Models produce inaccurate forecasts as assumptions are updated following analysis of actual performance.
Scope	<p>The scope of this assignment will be limited to a review of how the models have been created, the quality of guidance documents to support the models' operation, and an assessment of steps taken to determine the accuracy of the models by comparison to actual performance information. We will conduct testing over the model spreadsheets themselves to assess if the model behaves as expected. This work will include stress testing of the model will be conducted to test whether the model behaves as expected with a wide range of data values. , this review is not a technical validation of every element of the model or the models' outputs.</p> <p>We will conduct a high-level assessment of HCPC's overall approach to financial modelling and assess to what extent good practice modelling conventions have been followed, including whether or not seeking independent technical validation is appropriate.</p> <p>We will conduct detailed interviews with key staff involved in the creation and maintenance of the models, and seek to establish whether a reasonable approach has been adopted in setting out the financial modelling structure and that whether variables and inflationary figures have been identified with the input of relevant HCPC operational staff.</p>
Approach	We will interview key staff responsible for the processes above. This will be followed up with 'walking through' of the processes and targeted testing of the models' inputs, outputs and designs.

B Audit definitions

Opinion/conclusion	
 (Green)	Overall, there is a sound control framework in place to achieve system objectives and the controls to manage the risks audited are being consistently applied. There may be some weaknesses but these are relatively small or relate to attaining higher or best practice standards.
 (Green-Amber)	Generally a good control framework is in place. However, some minor weaknesses have been identified in the control framework or areas of non-compliance which may put achievement of system or business objectives at risk.
 (Amber)	Weaknesses have been identified in the control framework or non-compliance which put achievement of system objectives at risk. Some remedial action will be required.
 (Amber-Red)	Significant weaknesses have been identified in the control framework or non-compliance with controls which put achievement of system objectives at risk. Remedial action should be taken promptly.
 (Red)	Fundamental weaknesses have been identified in the control framework or non-compliance with controls leaving the systems open to error or abuse. Remedial action is required as a priority.

Any areas for improvement are highlighted with the key recommendations in the right-hand columns. The symbols summarise our conclusions and are shown in the far right column of the table:

Good or reasonable practice	
An issue needing improvement	
A key issue needing improvement	

Recommendation rating	
Priority ranking 1:	There is potential for financial loss, damage to the organisation's reputation or loss of information. This may have implications for the achievement of business objectives and the recommendation should be actioned immediately.
Priority ranking 2:	There is a need to strengthen internal control or enhance business efficiency.
Priority ranking 3:	Internal control should be strengthened, but there is little risk of material loss or recommendation is of a housekeeping nature.

C Staff consulted during review

Name	Job title
Margaret Osibowale	Head of Financial Planning and Analysis
Marche Thomas	Financial planning and analysis officer

We would like to thank these staff for the assistance provided during the completion of this review.

FOR MORE INFORMATION:

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