Monthly Financial Report and Financial Dashboard

Introduction

1 The Financial Year (FY) in Singapore’s public sector starts from 1 Apr and ends on 31 Mar the next year (henceforth denoted by FY20Y1 and FY20Y2 respectively for the first year and second year). During the first 4 months of the FY, agencies need to prepare and submit their revised budget for FY20Y1 (FY20Y1 RE), budget for FY20Y2 (FY20Y2 BU) and estimates for the subsequent 4 FYs i.e. FY20Y3 to FY20Y6 (Par Years).

2 The Ministry of Finance (MOF) sets out 2 benchmarks to track the budget utilization and performance of agencies. They are:

* Tier 1 Budget Utilization: Actual spending in FY20Y1 (FY20Y1 Act) is at least 95% of the original budget for FY20Y1 (FY20Y1 BU) which was submitted in the FY20Y0 budget exercise
* Tier 2 Budget Utilization: FY20Y1 Act is within ± 5% of FY20Y1 RE

Failure to meet these benchmarks may result in the agency not being able to obtain their requested budget in subsequent FYs.

3 In order to get a sense of the month-to-month budget utilization, a monthly financial report (MFR) is submitted. The report contains a to-date breakdown of the month-to-month spending for each line item, year-to-date cumulative spending, the variance between FY20Y1 Act and FY20Y1 RE (or FY20Y1 BU depending on whether FY20Y1 RE has been approved) as well as the reasons for the variance.

4 While the MFR provides an update on the expenditure to date, it does not provide a forecast on whether the 2 benchmarks will be met. Thus, around the mid-point of the FY, there is an additional report on the probable actual spending at the end of the FY to be prepared and submitted monthly. This provides an overview on the likely financial status at the end of the FY and provides the lead time needed for corrective action if required.

5 Although the activities for the FY have been around for years, my predecessor did not take a systematic approach and there were always finger pointing near the end of the FY on the party responsible for not meeting the benchmarks. With the change in senior management, there was a request for monthly presentation of budget utilization to ensure the benchmarks are met. This monthly presentation was assigned to me and I reviewed the existing documents to study how I could get the data in order. A few months after, impressed by what I had done, the budget portfolio was assigned to me.

Explanation of Financial Dashboard File

6 Using mock data, I have recreated the MFR and dashboard used in my previous role with some modifications. The data set for 1 FY found in the sheet “Base Data” has been transformed and reshaped to form the visualizations seen in the “Dashboard” sheet and the MFR (worksheet “MFR”). More details about both are in the following paragraphs.

7 The MFR uses a Pivot Table formed from the base data with DAX to calculate and display the total actual, total revised budget and the numerical as well as percentage variance between the two figures. Conditional formatting is also applied on the cells to visualize the magnitude of the figures with data bars and percentages exceeding a certain threshold to draw the reader’s attention.

8 As the FY calendar is different from the standard calendar year, the Date table for the data model has calculated columns to derive the period in the FY each month falls in i.e. Apr is the period 1 in the FY while Mar is period 12, which is then used to sort the months. This is then used as a slicer for the MFR for the user to select the months that they want to see. Selecting multiple months will provide the sum of those selected months.

9 The other tabs in the worksheet that were not mentioned in para 6 are the data preparation worksheets for the staging of visualizations used in the dashboard. This is in accordance with the practice of separating the final layer from the preparation layer.

10 To recap, the 2 key performance indicators are the 2 benchmarks by MOF explained in para 2. Hence, after providing a quick summary of the actual spending, the total number of projects that make up this data set and the man-months of 3rd party supervisors for the works (Resident Technical Officers (RTOs) and Site Project Managers), there are 2 visualizations for showing 1 benchmark each. These visualizations allow the reader to see whether the benchmarks are met based on the current selection of the slicers on the right. The slicers allow the user to select by months, type of work and type of fee to interact with the dashboard.

11 The next 2 graphs then provide the user an overview of the trend for cumulative spending between actual and revised as well as the actual spending sorted in descending order by type of works.

12 Using a dashboard for the presentation of numbers overcomes the limitations of Power Point slides where everything is static and one is unable to tweak the numbers to view a different scenario. Visualization of numbers using column and line charts also reduces the cognitive load of the audience and brings the ideas about numbers across more easily.

13 As shared, the mock data in this file is only for 1 FY. Depending on the use case, FYs are often viewed standalone FY by FY. However, if more data from different FYs are added to the “Base Data” sheet, it will allow the building up of a data warehouse and look at more trends across time to gain more insight and also assist in the finetuning of future budgeting and expenditure.