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INTEGRATED GROUP PROJECT MANAGEMENT MEETING GROUP REPORT (Programming for Business)

<<Cash Cows>>
<<TC05>>
<<Common Business Programme>>

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Introduction

In this report, we will examine how the accounting industry will be affected when the relevant stakeholders are equipped with coding knowledge. The ability to code plays a vital role especially in the VUCA world, where quick solutions are needed with accuracy and efficiency. In the accounting industry, coding is important such that stakeholders can perform repetitive tasks and analyse large datasets. They can improve their overall performance and optimise processes with the use of coding. This report will cover three examples of how the stakeholders can be more efficient in their work when equipped with coding skills.

Accountants

We will first explore the 3 different stakeholders, and what they can bring to the table when equipped with coding knowledge. Accountants are responsible for maintaining the financial data for a company or an individual. Their primary role is to help individuals or organisations manage their finances by preparing financial documents such as recording financial transactions, preparing financial statements and analysing financial records for analysis.[1]

There are still plenty of opportunities for accountants to adapt and thrive even with concerns about technology and AI replacing their jobs. Coding allows accountants to automate repetitive tasks such as data entry and data analysis, improving efficiency as accountants spend less time on the mundane tasks. For example, python is a widely used programming language, and it can write programmes that automate data entry or data analysis using for loops and defining functions. Coding eliminates tedious tasks such as data entry, reconciliation and report generation which saves a significant amount of time and they are able to focus on higher level work such as analysing trends and giving strategic insights to businesses.[2] Coding is not only a technical skill, but also develops the problem solving, critical thinking, creativity and teamwork of the employees. The work of an accountant would be less repetitive, and they are able to perform deeper data analysis into financial statements.[3] Furthermore, accountants can shorten the processes and consolidate the spreadsheets by creating personal tools and custom scripts which allows them to save up to 10 hours a week.[4]

Auditors

We will explore the ways in which the job of an auditor can be improved with the use of coding. Auditors examine, analyse and interpret accounting records to prepare financial statements, audit and evaluate the statements prepared by others. They are responsible to ensure that the financial statements prepared are free from misstatement, whether due to fraud or error[5].

With the help of programming automation, the workload of auditors can be reduced and can improve efficiency while producing more accurate data sets in a fraction of

the time. Auditors are involved in carrying out tedious and meticulous tasks which may require high level of concentration for auditors. With coding automation, these data entry and analysis can be replaced with just the click of a button.[6] They can process thousands of transactions to identify trends, anomalies or unusual activities such as duplicate payments when auditing the financial statements. It saves time and laborious work, while ensuring accuracy and lesser errors as compared to if auditors audit manually. Coding allows for consistency, resulting in a more reliable result. Automated auditing repeats the same processes and procedures of auditing and ensures that they are conducted the same way each time, producing clear audit reports. Any errors in the reports that are being audited are easily detected and addressed in a standardized system. Since coding also identifies irregularities or any fraud faster than manual audits, the risks are identified quicker and can be solved before it becomes a problem[6], reducing financial risks for organisations.

Tax professionals

Thirdly, we will explore how tax professionals in the accounting industry can benefit from the use of programming in their daily lives. Tax professionals are responsible for assisting in preparing and submitting tax returns for individuals or organisations. They can use coding to help them automate tax filing and reporting, reducing time spent on these manual tasks. They are the ones who provide guidance and advice to help taxpayers minimize their tax bills through any possible deductions and credits while ensuring the tax obligations are still met.[7] Coding allows for customer-specific dashboards which display important tax information or deadlines which can remind clients directly about important tax filing deadlines. This reduces the reliance on tax professionals while also creating a more personalized experience, improving their customer service[8].

Tax professionals can also create custom tax calculations with the use of coding, with different calculation models to tailor to different tax regulations. This reduces the time needed to manually calculate the tax amounts to different clients which saves time and provides more accurate and faster results. This allows them to set aside more time to cater to their clients such as giving them advice. By coding, they can also use codes to identify outliers in tax data which helps them to detect any errors or fraud in tax filings. It was surveyed that nearly 60% of workers could save almost a full workday if their jobs were automated[9]. Hence if tax professionals were to use coding such as a python script, it would save plenty of time.

Name of the Data Set: Inventory Cost Data

How the automation works

The inventory cost data set automates the tracking of the costs related to maintaining and managing the inventory such as the cost of goods, storage costs and stock turnover rate. One key function of this automation is that it can help us to monitor real-time inventory levels and help us to calculate the cost of maintaining stock in our inventory, ensuring that the data is constantly updated as the goods are being sold. The automation can also provide alerts when the inventory reaches a reorder point which prevents any stockouts or overstock situation, helping us to better manage our space utilisation. Furthermore, this automation can also calculate the cost of goods sold whenever a sale is made by using the purchase cost of the sold product directly from the inventory which ensures accurate profit margins. The inventory turnover rate can also be calculated with the automation, which helps to forecast the amount of goods sold based on the demand and identifies the products which are moving slower or faster and the products that were in the inventory for too long will automatically have a price reduction, to quickly clear the old stocks.

Why is this automation useful

The Inventory cost automation would help us to control our cost, ensuring that we have full visibility of our purchasing costs and stock levels. This allows us to identify the unnecessary inventory purchases where we can control and reduce overstocking and allows us to take action to resolve these issues. In the game, there were some items that we ordered to much or too little for, causing a strain in the cashflow as we had too many stocks. Conversely, there were also some items that were selling fast, and we had to keep ordering based on our predictions which caused an increase in shipping expense. But with this system, these inefficiencies can be reduced. In the game, we had a space utilization of 1.52/5 which negatively affected our profitability as we did not properly forecast the demand. This automation helps us forecast the exact demand based on the stock turnover rate especially during periods of holiday or financial crisis in the game, helping us to better manage our inventory level and shipping expenses as we know the amount we should order. With this automation where the inventory cost is clearly shown, it allows us to make more informed decisions about pricing and sales strategy. This automation of the inventory cost data allows no need for us to check the inventory levels, stock value or track the turnover rate manually, which can be tedious and prone to errors due to the large amount of data during the game. This frees up more time for us to focus on other activities such as planning a strategy midgame with the information gathered. By automatically tracking the turnover rate, we can quickly take action to clear the slow-moving stocks to prevent any unnecessary capital tied up in the inventory. We can

buy more high-turnover products and increase the prices to earn more revenue, instead of wasting money and inventory space on low turnover products. Overall, this inventory cost automation will allow us to maintain a cost-effective and efficient inventory management system, allowing us to profit more and increase our revenue.

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