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Future-ready accountant: Upskilling and life-long learning in the age of digital transformation

Yuanto KUSNADI
Singapore Management University, yuantok@smu.edu.sg

Gary PAN
Singapore Management University, garypan@smu.edu.sg

Future-ready Accountant: Upskilling and Life-long Learning in the Age of Digital Transformation

KUSNADI, Yuanto; PAN, Gary

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Upskilling and life-long learning are two key phrases that Education Minister Lawrence Wong highlighted in his speech at the Straits Times Education Forum 2021.

The rapid emergence of digital technologies has disrupted many industries, including accountancy sector. While accounting jobs will continue to exist and grow, the way that accounting work is carried out is no longer the same. Accounting functions are increasingly relying on digital technologies to enable their work. For instance, data analytics is deployed in audit and forensics to detect irregular patterns in accounting transaction. Machine learning algorithms are used to sharpen forecasting models to predict sales trends. Such digital evolution in the accountancy sector has witnessed a growing call for 'digital accountant': Accountants that are equipped with relevant digital knowledge and skillsets that allow them to handle and manipulate large quantum of data in daily accounting tasks and develop deep analysis in supporting business decision-making.

SMU Accounting Online Data Camp

It is for this specific purpose of upskilling current accountants and preparing future accountants to embrace digital technologies that the School of Accountancy (SOA) of Singapore Management University (SMU) launched its inaugural online data camp on 'Digital Transformation & Financial Analytics' in late August 2020.The main objective of the camp was to provide participants with basic knowledge on accounting and data analytics, and programming skills in Python. At the same time, participants also get an opportunity to experience SMU interactive teaching pedagogy, a hallmark of SMU's undergraduate as well as postgraduate education.

A major challenge encountered in organizing the data camp was the Covid19 pandemic. With the prohibition of face-to-face lesson owing to safe distancing rules, the data camp was organized fully online. Nevertheless, there was still strong interest in the data camp as the school had received overwhelming number of applications from all around the world, with different groups of participants, ranging from university students and working professionals. Eventually, 60 participants were selected from 7 different countries (Singapore, Indonesia, Malaysia, Thailand, Vietnam, Taiwan, and China). Notably, a large percentage of the participants were accountants from the Big-4 accounting firms in Singapore, who were looking to upgrade themselves and learn new skills in digital technologies.

The curriculum design took into account the characteristics of online teaching that includes 12 hours of lectures and 3 hours of group project presentations; the content covered the latest trends in digitalization and business model construction, introduction to python programming, data analysis and visualization, and the application in accounting and financial analytics.

The data camp exposed the participants to current trends in the accounting industry and equipped them with new skill-sets through programming in Python. Hands-on exercises were conducted to train participants to be familiar with automating their jobs of retrieving and saving files through Python scripts. The ability to obtain publicly available information from Yahoo! Finance also proved useful for accountants as they may need to extract and visualize market trading data. Finally, descriptive statistics and regressions analysis were also taught as accountants need to infer from the data that they have obtained to make more informed decisions in their daily job.

Interactive and Engaging Online Group Presentation

Group project presentation, a hallmark of SMU teaching pedagogy, was a major feature of the online data camp. Participants were divided into project groups which require them to apply what they had learnt throughout the camp to perform analysis on a real company that they had selected and provide feasible suggestions on business model, digital transformation issues, and how accountants in that company could react in the "new normal" of post Covid-19 world. With face-to-face presentation rendered impossible, online interactive presentation had certainly made the data camp experience unique and more engaging.

Overall, the participants (both working professionals and students) had acquired hard technical skills and soft communication skills through novel online teaching as well as presentations; they had also expanded their network by getting to know new friends in the camp. Several participating in this course had described the online data camp an "unforgettable experience", something that they would recommend to fellow colleagues or friends.

The success of the first online data camp has encouraged SOA to continue to launch such camp (latest one being in February 2021) to provide regular training opportunities for accountant as well as to reinforce the importance of digital technology for existing accounting students. The dual-prong approach definitely supports the emphasis on upskilling and life-long learning.

Preparing a Future-ready Accountant

According to a Forbes article, "Why Artificial Intelligence is the Future of Accounting", many accounting tasks, which include tax, payroll, audits, and banking will be fully digitalized using AI-based technology. Therefore, digital skills are required to complement technical accounting knowledge. Future-ready accountant will be doing more interpretation and communication of results to their clients, instead of doing only the mundane jobs of identifying, verifying, measuring, recording, and classifying transactions. These low-level operational jobs are likely to be outsourced or automated, and accountants are required to perform more value adding tasks in analysis and interpretation.

In addition, accounting firms may be looking for data scientists who have the ability to understand and manipulate massive volumes of data; and combine operational, technical and financial data into rich data sets. Scenario planners will also be in high demand as these individuals have the ability to run several models simultaneously to determine the likelihood of certain scenarios happening.

To continue to thrive in the new roles in the digital age, universities will need to ensure that students possess both technical accounting knowledge and digital skills that prepare them for accounting jobs of the future. This means besides having a rigorous accounting-based education, universities should also teach skills that will allow students to navigate a future workplace where digital technologies are the norm. Employers must also continue to advocate and support their employees in upgrading their skills through regular training and education. This is especially important given that future developments in technology are likely to occur rapidly and require new skillsets to navigate.

About the writers:

Yuanto Kusnadi is Assistant Professor of Accounting (Education). Gary Pan is Professor of Accounting (Education) and Associate Dean for Undergraduate Admissions and Student Development. Both are from School of Accountancy, Singapore Management University.