Would I get double my salary if I do Analytics courses?

I am often asked this question, whenever I visit any campus these days – be an academic Institute or a software factory. Mostly, it is from engineering students either in the college or those who have completed 4,5 years in IT industry. I get a smaller number of such queries from working professionals across the spectrum – accountants, lawyers, doctors and design professionals. My answer is simple – YES, provided you meet some requirements. Let me elaborate.

Analytics is today what computing was in 60's and 70's, when we all entered the job market. "Computer" was a newfound tool that attracted the attention of scientists and engineers across the spectrum. Everyday some new use was found for the machines whose basic capability was adding a long list of numbers incredibly fast, without error, many a times; later, an ability to store and retrieve a large set of numbers reliably and accurately was added; much later, an ability to transmit and receive a large set of numbers real fast (at the speed of light), reliably and at affordable cost, got added. This in turn, led to diverse applications

- Accurate and fast census, so that census data can be used for economic planning
- Precise weather prediction, so that disasters can be better managed
- Library automation, so that book procurement and books issue / return could be efficient
- Payroll to improve wage settlement accuracy and fast disbursal of payslip
- Inventory control to optimize storage / stock-out costs
- Scheduling to improve operational cost of aircraft / trains / buses
- Product mix to optimize the production / distribution / storage cost
- Media planning to maximize the reach for a given advertisement budget

An ability to creatively use the "newly discovered toy" to create unusual value was the newfound opportunity; it was quickly rewarded by unusual job / research opportunities across the spectrum. Analytics today is in a similar situation.

- The maturity of mathematical models that Google / Facebook / Twitter and Amazon / Flipkart use
- The opportunity provided by always on connectivity and near-infinite computing power provided by mobile network and cloud
- The near-universal access provided by smart devices (smartphones and tablets)

offer unusual possibilities

Coupled with

- The identification (who?) and precise location (where?) made possible by device identity and GPS, goods & services (what?) can be targeted to a precision unparalleled in human history.

That explains the huge interest in Analytics all over.

A larger issue that is often forgotten by students / young professionals is that salary from corporation X is just part of a fee that the corporation X realizes from end customer (another corporation, government or end user) for a value that Corporation

X created; nothing else. "Money does not grow on trees" as the old saying goes. Unless a professional working for a corporation (individually or collectively) creates such value there cannot be a question of getting a salary (let alone double the salary) in a sustained manner.

Value creation has three components

1. A mind-set to create value
2. Knowledge to create value
3. Skills to realize the value

To succeed in computing in an earlier era you needed a "computing mind set"; similarly, to succeed in analytics you need an "analytics mind set". Students and young professionals would be well advised to ponder over the trio

1. An ability to make sense out of a set of numbers that are seemingly unconnected, an eye for patterns, some time an ability to visualize numbers / patterns that use the phenomenal amount of information available today; in other words, an analytics mind set

2. Over the years a lot of "analytics knowledge" has evolved – statistical methods, optimization models, pattern recognition techniques, machine learning, artificial intelligence, for example. The student / professional wanting to enter Analytics would be well advised to master this knowledge base from Analytics courses that are getting to be available from a large number of Institutes / Universities / online platforms. In addition, for working professionals, the individual knowledge of his / her domain – manufacturing, sales, finance, service, agriculture, healthcare – would greatly help in articulating the "analytics value creation".

3. Finally a whole range of "tools" – SAS, SPSS, R Programming Language, Excel extensions - for example, and many more tools that will get created in the next decade (the way programming and database tools evolved in 60's & 70's)

If the students / working professionals who keeps asking me this question "would I get double my salary if I do Analytics course?" ask themselves whether they have the mind set and mastery of the knowledge & tools, they will get the answer to the question themselves.

Also, it is important not to forget that one is rewarded for the value one creates from the knowledge; simply possessing the knowledge does not help in creating the value. Getting the No 1 rank in Analytics course would not lead to success; internalizing the knowledge and applying the acquired knowledge alone would help

My best wishes for doubling or trebling your salary!

Professor Sowmyanarayanan SADAGOPAN is the Director of IIIT-Bangalore. These are his personal views. He can be reached at ss@iiitb.ac.in