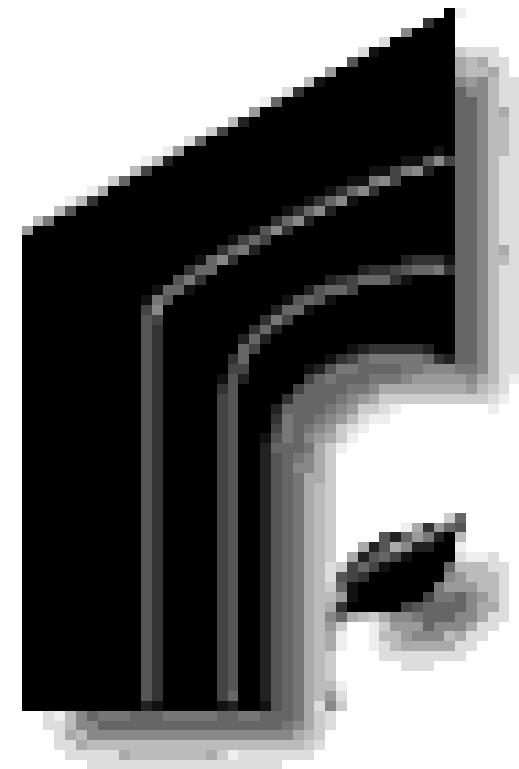


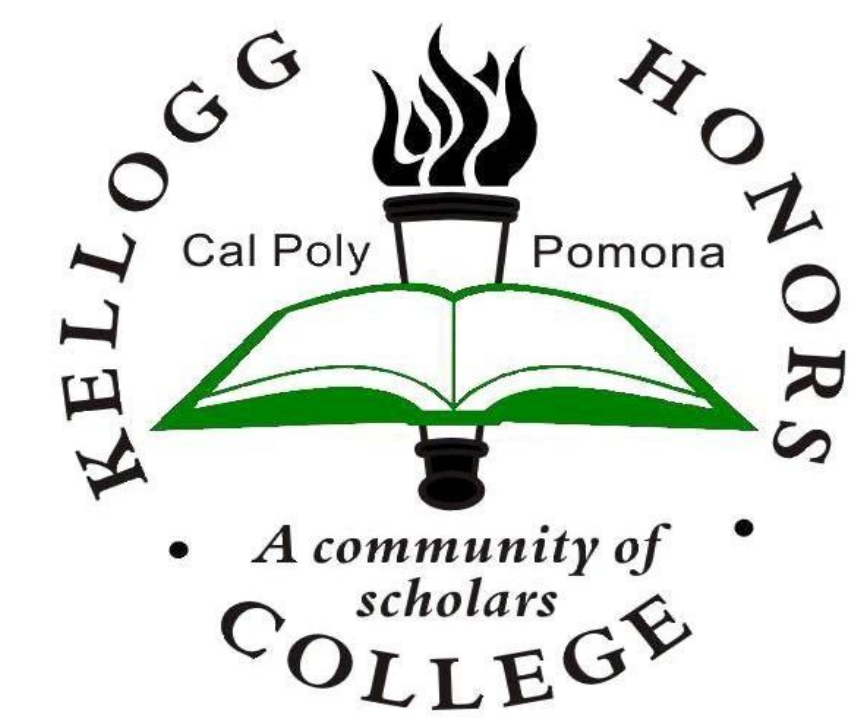
Analytics in the Accounting Profession



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Kellogg Honors College Capstone Project



Innovation along with vast data has provided the accounting industry an opportunity to use advanced methods in their daily functions of operation. However, these types of innovations are only possible when individuals can extract, analyze, and transform data into useful information. This essential role is described as **Data Analytics**. This job title was made available after Big Data was viewed as a mine of potential riches. The most beneficial outcome of adopting this role along with the pertaining innovative tools will increase efficiency when producing financial statements. In my presentation, I will discuss the role of Data Analysis in the accounting profession and the reasons **why** the industry should implement this in the workplace. I will also be discussing the **benefits** of implementing a curriculum that equips our future accounting professionals with analytical skills before reaching employment.

Four Categories of Data Analytics

The process of transforming data into information can be simplified into four categories. The following table shows us a breakdown. Please note that most industries modify these categories to fit their needs.

Category	Definition	Example
Descriptive	This type of analytics answers the question of what happened. This information is usually only able to inform enough to categorize something as right or wrong.	A descriptive analysis can inform a family-owned retail store of their inventory turnover, average weekly sales, and/or of their highest product on demand.
Diagnostic	Data is extracted and analyzed in depth to identify patterns that may explain a certain outcome. Answers the question of why something happened.	When a retailer uses categories and subcategories to identify what products have the highest sales and then comparing the results to other companies. If the retailer notices a trend, then he or she can speculate the why of the information.
Predictive	In predictive analysis, data is used to inform us of what is likely to happen. It is important to note that this approach is an estimate based on the information on hand.	Sales in a business setting can be estimated based on past results.
Prescriptive	This step involves deciding on what direction to proceed on and acting on that basis. The sole purpose of this stage is to take advantage of opportunities of potential trends and remove future problems that may rise.	An example of this can be seen in businesses that use sales history to identify opportunities and influence future purchases.

Data Analysis and Accounting

Many professionals have trouble identifying precisely how data analysis and accounting correlate and in what ways will it benefit an accountant's performance. The following are a few of the benefits:

- Reduce the timing of corporate reporting
- Provide real-time updates in financial reporting
- Effective decision making

Innovators

Since the emergence of technology and the internet, many industries have been influenced to change their accustomed ways of performing their daily tasks of operations. The industries that have opted to use the internet and technology to gather and analyze data have indeed flourished, while others have fallen behind due to their skepticism. Unfortunately, the accounting field is one of the few industries that has been slow to adopt change regarding analytical intelligence. Fortunately, there are a few accounting firms that have begun to lead the way to the future of the accounting world.

- Intraprise TechKnowlogies (Hawaii)
- ACCOUNTability PLUS, LLC (Minnesota)
- Total Highway Maintenance, LLC (Texas)

Skill Gap

There are several elements that have contributed to the slow pace of analytical change in the accounting industry. The biggest reason seems to be that many accountants lack analytical skills. Though this is not very uncommon, it is surprising that accounting managers have taken little to no initiative in providing the adequate resources to employees for implementation to occur. In a survey conducted, only 14 percent of respondents said their firm offers training related to data analytics. A survey which included 479 individuals with job titles such as CEO, VP, CFO, controller, director, or accounting managers in the United States and Canada, also indicated a talent gap within the industry. The survey revealed significant skill gaps in the following areas:

- Identifying key data trends
- Data mining and extraction
- Operational analysis
- Technological acumen
- Statistical modeling and data analysis

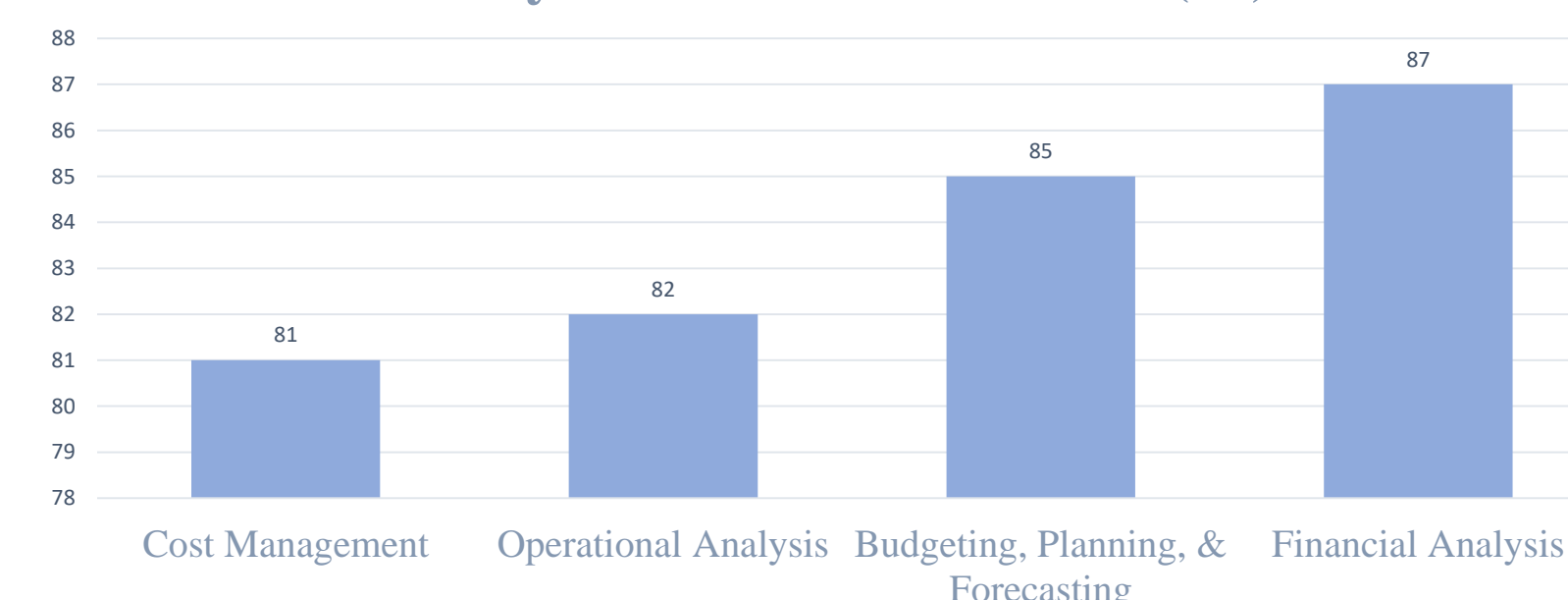
What Employer's Seek in a Candidate?

CompTIA, IT's industry top trade association, strongly recommends employers to seek employees that meet certain criteria to be considered for an analytical position. The following is a list of required skills of a data analyst:

- Comfortable manipulating, analyzing complex data
- Empirical research experience
- Experience with large data sets, computing tools
- Ability to communicate complex analysis in a clear and precise manner

Though these exact requirements will not be expected from an accountant, they share plenty of similarities. Managers most commonly seek analytical skills in:

Institute of Management Accountants:
Analytical Skill Set Demand (%)

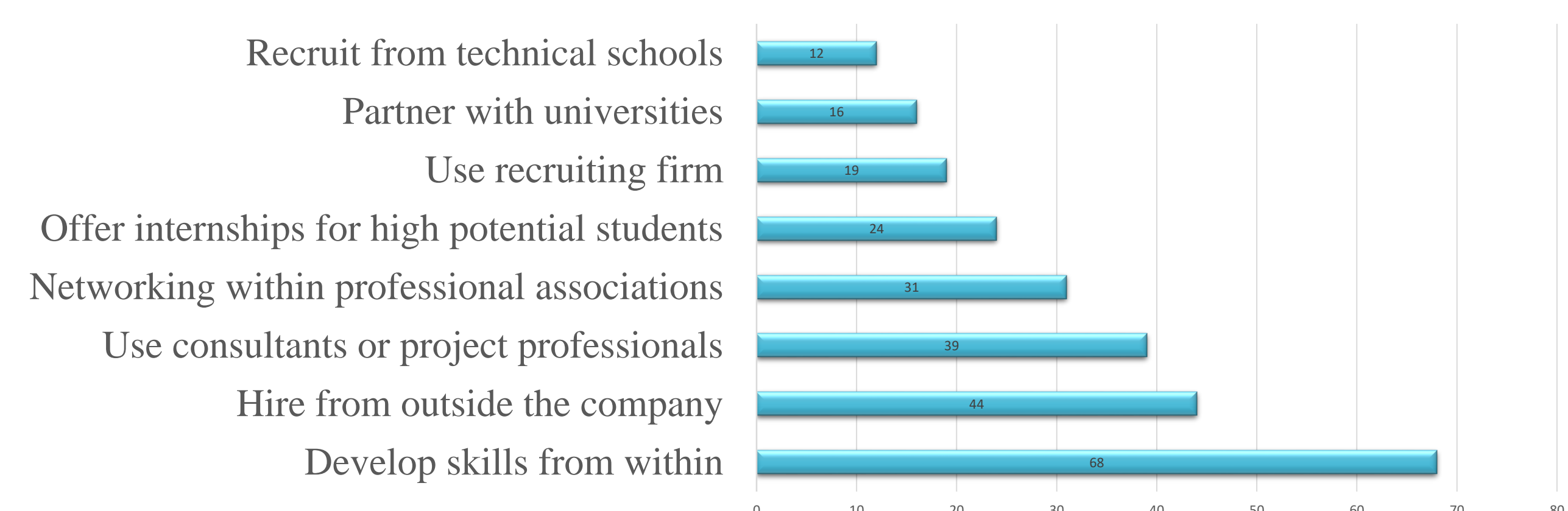


With the rapid changes in IT, accountants will need to become versatile or at least be willing to be removed from what is comfortable and adopt the new changes a step at a time. Though it may be a challenge at first, these professionals should take an initiative to enhance their skills now and employers should provide employees with adequate training.

Reduce the Talent Gap

Despite the notable talent gap, the statistics indicate that there is still insufficient training provided by employers to employees. Thus, this explains why some accountants are not able to cope with the current changes that a company is undergoing. A solution or reduction to this talent gap may be to hire technical specialists to help their current team stay updated. The following is a chart that depicts possible solutions for reducing the talent gap:

Important Practices in Building a Team's Business Analytics Skills (%)



Educating Our Future Generations

The rising generations will need to become aware of the innovative changes the accounting world is experiencing. Furthermore, by adding courses related to analytics into the university's curriculum, future accountants will be readier when entering the workforce. Indeed, there are many benefits to implementing analytical courses relating to accounting. There have been several universities that have already begun to implement analytical objectives into the business accounting curriculum. An example of this can be seen in the state of Michigan at the Grand Valley State University. The university was able to gather learning objectives already used in previous classes to ensure that the new curriculum would still fulfill the same objectives while using more innovative tools that would promote analytical skills. Their initiative has highlighted the importance of training future accountants to ensure that the accounting industry remains relevant and informed of the changing trends. The future of the industry lays in the palms of our pedagogical institutions and employers who must take ownership of the sporadic changes that the accounting profession is facing.