

Business Intelligence: Oxymoron or a Big Data Technique?

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Business education current practice prepares students for analysis with tools such as Strengths, Weaknesses, Opportunity, and Threats (SWOT Analysis). Predictive Analytics and Data Science coupled with Big Data are popular. As faculty show students how to help business organizations solve real-world problems with these advanced analysis tools, they need to understand how to integrate the softer side of Business Intelligence into business analysis practice. These softer skills include Knowledge from Education, Practical IQ, Emotional IQ and Interpersonal IQ. Taken together they define Business Intelligence which is highly useful in both academic assignments like internships and on the job after graduation.

BACKGROUND

Dion, Berschid, and Walster (1972) launched a line of research with their thesis that “what is beautiful is good” that has been applied to everything from reviewing resumes (Kennet & Thyregod, 2006), to cooperation on tasks (Mulford, Orbell, Shatto, & Stockard, 1998). What can transcend physical attractiveness and personality is Business Intelligence. Without business intelligence, graduates are unlikely to be highly successful no matter how attractive they are, how much content knowledge they have, or how many technical skills they acquire in pursuing a business degree. This approach to developing business intelligence has been successfully tried in quantitatively oriented degrees such as statistics (Taplin, 2003) which indicates its potential application in business education. In fact, the past President of the American Statistical Association, Sastry Pantula has argued that statisticians need soft skills describing Business Intelligence saying the following (Pantula, 2010):

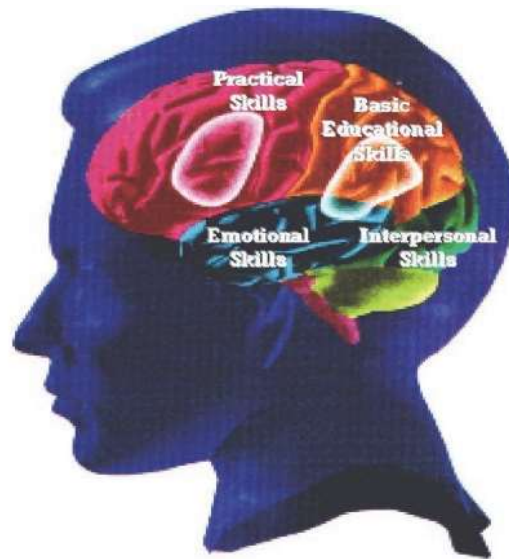
“To succeed in our careers, we need both hard skills and soft skills. There is no doubt that all our jobs require us to have a strong foundation in statistical theory and methodology and excellent computational skills to manage massive data. Soft skills are not a cover-up for the lack of hard skills; we must have and show our expertise in our field. However, hard skills by themselves are not enough. Soft skills help us work in teams, communicate with other scientists, aid management, and move up the ladder through leadership.”

This paper is directed at showing how Business Intelligence is based on four kinds of IQ that are independent of physical attractiveness, personality, quantitative abilities, and technical skills:

1. Content IQ
2. Practical IQ
3. Emotional IQ
4. Social IQ

The cluster of four business intelligence factors appears in Figure 1 below:

FIGURE 1
A CLUSTER OF FOUR BUSINESS INTELLIGENCE FACTORS



Educational IQ

Fluid reasoning (FR) is the ability to solve problems in novel circumstances. Fluid reasoning is considered by its originator (Cattell, 1987) to be independent of acquired knowledge. It is considered essential for cognitive development (Goswami, 1992) and helps us to acquire other abilities (Blair, 2006; Cattell, 1971; & Cattell, 1987). Fluid reasoning, in childhood, foreshadows success in school, university, and work where cognitive skills are involved (Gottfredson, 1997). In addition to this line of research, Clouston, Kuh, Herd, Elliott, Richards, and Hofer (2012) followed international birth cohorts to show that education has a direct causal and lasting benefit on cognitive development. Cognitive development was measured in a variety of ways including the change in mathematics and reading comprehension in addition to other measures from age 15 to 53. These authors found that having a university education is positively correlated with higher fluid reasoning in adulthood. Those authors concluded that differences in adult fluid reasoning are at least partially due to educational experiences after adolescence.

Gensowski, Heckman, and Savelyev (2011) estimated the internal rate of return (IRR) for education for men and women included in the Terman sample, a 70-year long prospective cohort study of high-ability individuals. This analysis showed the IRR for obtaining a bachelor's degree over a high school diploma is 11.1%, and for a doctoral degree over a bachelor's degree it is 6.7%. These results are unique because they highlight the returns to high-ability and high-education individuals, who are not well-represented in typical data sets. The results also show IQ is rewarded in the labor market.

Practical IQ

Analytical and creative business knowledge and skills define Practical IQ (Peters, 1987). Those with Practical IQ know how to collect, prepare, process, and interpret the output of business analysis tools such as SWOT and TOWS. Business consultants convert results of these analytical techniques into information that can be used to improve the operations and strategic position of a business. One author (Walsh, 2007) has even offered 54 different tools and techniques business consultants can use as a resource list to call on.

Emotional IQ

The ability to identify, assess, and control their own emotions when others have trouble understanding business problems and solutions is a very important skill (Goleman, 1995). Emotional IQ

has components as simple as good listening skills and as complex as managing an irate client. Emotional self-control defines Emotional IQ, a second element to Business Intelligence. This capability means a good business consultant is confident but not arrogant. Listens actively by reflecting what a client says to gain complete understanding. Having a PhD from a top Business School like Wharton or Harvard Business School is nice, but those with Emotional IQ will rely more on the ability to get others to understand business problems and potential solutions than what they learned in business school. Emotional IQ also means being confident is better than simply appearing confident. Being truly confident makes it a lot easier for other people to trust a business consultant with help in solving business problems and running their organization. Being truly confident and having Emotional IQ also means being 'objective.' Neuroscience has shown that in the area of analysis versus emotions, many decisions can be improved by having negative emotions recognized and kept in control (Shiv, Lowenstein, Bechara, Damasio, & Dmasio, 2005)] before crucial decisions are made. Those who have command and control over their emotions have high Emotional IQ.

Interpersonal IQ

The capacity to quickly establish rapport and effectively navigate and negotiate complex social relationships and environments defines what he labels as Social IQ. As described earlier, emotional intelligence deals with managing our personal emotional state, and is contrasted with social intelligence as dealing with managing interpersonal interactions and relationships to positively influence others. Social IQ enables business consultants to establish a relationship and serve clients who are not knowledgeable in organizational development and dynamics. Many examples of the value of Social IQ can be found in Daniel Goleman's work (Goleman, 2006), and the foundation of Social IQ is anchored in mirroring neurons in the brain. This approach to Social IQ is based on neuroscience which describes the basis of empathy as the ability to both feel the emotional experiences of others and understand their situation from a rational point of view.

Business Intelligence

Henry Cloud (2006) has described a predisposition to action resulting from these four types of IQ. It is contended here that the following six characteristics define functional Business Intelligence as:

1. The ability to gain the complete trust of others.
2. Seeing reality without blind-spots.
3. Working in a way that produces outcomes that are expected based on their abilities and available resources.
4. Dealing effectively with problem people, negative situations, obstacles, failures, setbacks, and losses.
5. Creating growth in themselves, their organizations, their clients, and anything else they touch.
6. Transcending their own interests and dedicating themselves to a larger purpose or mission.

DISCUSSION

It is argued here that Business Intelligence comes from developing Educational, Practical, Emotional, and Interpersonal Intelligence skills and abilities. It begins with the ability to understand why someone wants to engage a business consultant in the first place. The top 10 reasons organizations hire business consultants were identified in a recent survey (Entrepreneur Press & Sandlin, 2010) and include the following items. A consultant may be hired to:

1. Provide his or her unique expertise. This is where it pays to not only be really good in the technical aspects of business consulting, but to have some type of track record that speaks for itself.

2. Identify problems. Sometimes employees are too close to a problem inside an organization to identify it. That situation is often helped by a naïve outside view.
3. Supplement the staff. Sometimes an organization discovers that it can save thousands of dollars by hiring consultants when they are needed, rather than hiring full-time employees. Organizations sometimes realize they save additional money by not having to pay benefits for consultants they hire. Even though a consultant's fees are generally higher than an employee's salary, over a given time period, it simply makes good financial sense to hire a consultant.
4. Act as a catalyst. In a typical organization few people like change. When change is needed, a consultant may be brought in to 'get the ball rolling.' In other words, the consultant can do things without worrying about the organization's culture, employee morale, or other issues that get in the way when an organization is trying to create change.
5. Provide much-needed objectivity. Who else is more qualified to identify a problem than a consultant? A good consultant provides an objective, fresh viewpoint--without worrying about what people in the organization might think about the results and how they were achieved.
6. Teach or train employees. These days if you are a business consultant who can show employees how to master a new business aspect like social media or big data analysis, then the telephone probably will not stop ringing for a while. A consultant may be asked to teach employees any number of different skills. A consultant must be willing to keep up with new discoveries in their field of expertise--and be ready to teach new clients how to stay competitive.
7. Do the 'dirty work.' When cuts have to be made or only one point of view can be accepted, someone's feelings are going to be hurt or someone's 'baby' must be declared 'ugly.' When the available information suggests a product should be taken out of production, when years of R&D have been invested in a product that the market just does not want or need, or when the boss's favorite ad is not working, someone has to tell the truth. Managing that conflict is a key skill.
8. Bring new life to an organization. If you are good at coming up with a new business model that works, then you will not have any trouble finding clients. Sometimes the problem is not really a problem, but an opportunity and a good business consultant can find a way of analyzing and displaying the information that shows a viable opportunity that not only solves a problem, but leads to growth.
9. Create a new business. There are consultants who have become experts in this field. Not everyone has the ability to conceive an idea, support it with data and expert analysis, and then develop and sell a plan for the future. If students can do all of that, they will be successful.
10. Influence other people. Asking the question, 'Do you see yourself as a sales person?,' must be answered by the business consultant. Whether students realize it or not, they are always selling. Selling ideas and results of business analysis is a key part of being a business consultant since many business outcomes are grey rather than black and white.

An Example

The Myrtle Beach Area Chamber of Commerce requested help in determining new ways to attract visitors to the Myrtle Beach. A three-person student team was selected from a Marketing Research class to undertake the project under the guidance of the author. These students enthusiastically accepted the invitation.

The process included meetings with the CEO and Marketing Research Department of the Chamber of Commerce and business leaders in the area. From those meetings, the students developed a plan of action. The objective throughout this project was to discover what would entice people to travel to the

Myrtle Beach area during the off-season. They submitted a proposal to the CEO and created a milestone schedule to finish the project before the end of the semester. The students displayed Social and Emotional Intelligence in the process of working with the Chamber of Commerce to identify the problem, creating a plan to solve the problem, and selling the plan to the CEO and Marketing Research Department of the Chamber of Commerce.

The field research phase included qualitative methods used to explore questions pertaining to: hotel accommodations, length of stay, attractions or events, and price. A quantitative survey was then designed and implemented to determine how strongly potential visitors felt about these issues. A multi-method approach was used involving face-to-face, telephone, and internet methods. In all cases a Self-Administered Questionnaire was employed. The students analyzed data using Excel Data Analysis ToolPak. They then created tables, graphs, and other material for a formal written report and a PowerPoint presentation. Their interpretation of the analysis indicated the most important issues in the quantitative findings were age and price. The age group 24-39 was found to be the most frequent and most price sensitive tourists visiting the Myrtle Beach area. These findings led them to conclude that the age group 24-39 is the most important segment for future marketing using a price bundling strategy. The field and reporting phases showcased their Practical Intelligence as well as Social and Emotional Intelligence.

The student team presented the project in two venues: 1) at a dinner meeting of members of the Chamber of Commerce, and 2) at a special presentation of undergraduate and graduate student research projects for the Wall College Board of Visitors. In both cases, the team, the project, and its recommendations were well received. Three of the recommendations were adopted as an action plan by the Chamber of Commerce.

Finally, as a tribute to the students' Business Intelligence, the Chamber CEO wrote an extraordinarily complementary letter to the President of Coastal Carolina University and donated \$2,000 to the Marketing Club which has been used to support the students' Club activities.

CONCLUSIONS AND IMPLICATIONS

On the employer side, the approach of looking for candidates with Business Intelligence has been used in employee selection as outlined by Livens, Chan, In Farr, and Tippins in the Handbook of Employee Selection (Levins & Chan, 2010). On the business consulting side, internal and external clients often do not know about such tools and techniques such as SWOT and TOWS. Consultants with high Business Intelligence are able to have an understanding of both their client as people and their client's opportunity or problem. That dual understanding plus a business analysis done by a consultant high in Business Intelligence can lead to effective change and sustainability of the business. Employees in a business needing this kind of assistance also need to have the problem/opportunity and recommendations for action explained in 'street language' which they can understand and which they can then use and communicate to others in the organization.

In summary, students who exhibit Business Intelligence are:

1. Able to quickly establish trust and rapport.
2. Exude confidence born of experience.
3. Able to concentrate on the client's situation and never procrastinate.
4. Exhibit understanding all factors that affect the client business.
5. Be as committed to the client business as the people who work in it.
6. Be effective communicators in very specific rather than vague ways.
7. Be capable of delivering results that have a major impact on the success of the client business thereby justifying their very existence.

Most students do not come to college with these skills. Teaching business students the soft skills and abilities defining Business Intelligence exhibited by effective consultants early in their business program of study is a good way to practice what Randy Pausch (Pausch, 2008) calls 'head fake learning,' or

learning about something without being aware you are being taught. Business Intelligence is a special case of head fake learning that requires the right approach. The student project described here is an example of real world business consulting by students involving head fake learning in tourism marketing. It shows how all three types of IQ are developed, needed, and how to use them.

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