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The Coming Age of Business Engineers in the SMOG and MOGI Industries

The Standalone Mineral, Oil and Gas (SMOG) industries and Mineral (s), Oil and Gas-Integrated (MOGI) industries are in the throes of transformation—often without choice. If one can read in the near future, the supply side will remain constrained and varied in the future as investments in old and new projects will be limited; the demand side will be more or less flat, without much uptick except in a few sectors. The traditional supplier-consumer relationships will be under strain. It will be an open market—ever-changing customer(s) scenario that one may look for. The business making will be in the right earnest with production costs remaining both high and unpredictable because of the rising input cost of labor and energy. One new role for the above industry is emerging- the business engineers. While this article is about the mining and petroleum students and professionals, this will apply to all hardcore and softcore industries.
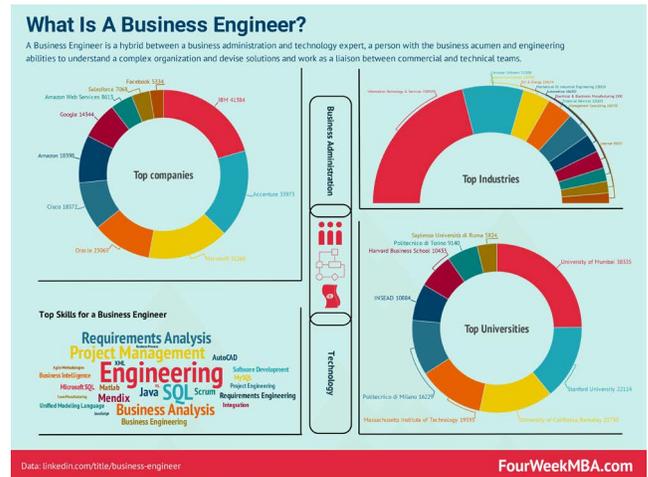
Who is a Business Engineer?

A Business Engineer is a qualified person who is both a technology/engineering expert and business administration specialist, a person with the business acumen and engineering abilities to understand a

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complex organization and devise solutions and work as a liaison between commercial and technical teams.

Skills and Expertise

Some of the key elements comprising business engineering require sound understanding of several disciplines and areas:

a. Core production particulars (Note many of these jobs will not be core jobs of the company but will be contracted)
b. Environmental and Social Governance (ESG) with law
c. Business model
d. Business processes
e. Organizational structure
f. Trading
g. Digitalization and adoption
h. Information process and technologies
i. The interaction between people and technologies within organizations

In one of its vacancies for a Business Intelligence Engineer, Amazon defines it as someone that can help "improve and define the best way of doing things throughout the company using the power of your analysis, technical skills, and business acumen." This particular role is focused on improving internal processes to "identify opportunities to improve and optimize shipping costs and realizing good cash health." As pointed out by Amazon, "the successful candidate will be able to retrieve, integrate, visualize and present critical data in a format that is immediately useful to improve the business decision-making process."
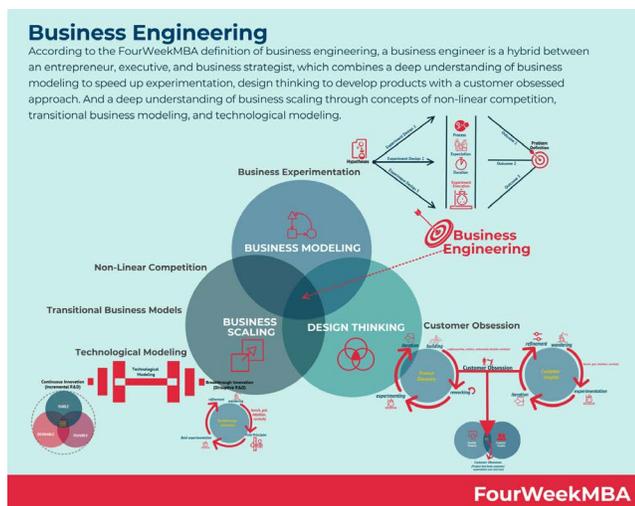
A Discipline of Engineering and Business Administration

As more and more organizations are being innovated by combining technological products and processes with remixing old and new business model patterns, it becomes critical to understand and drive those processes. A business engineer is a manager that can guide companies through hard decisions by looking at quantitative data, navigating ambiguity and reducing the noise where needed.

Some of the disciplines of business engineering are:

1. Technology and essential engineering
2. Trade and commerce
3. Business administration
4. Law and economics

A business engineer is a hybrid of a commercial and technical role. It can work as a liaison between commercial and technical teams to device complex solutions to its organizations or other companies with which the business engineer partners.

What Tasks a SMOG and MOGI Industry Business Engineer Would Perform?

Some of the job descriptions that can be derived from Indeed and LinkedIn are:

Managing and Developing sales and service with regional and global accounts, supporting Account Managers and business development with stringent cost, price and payment recovery focus. One important aspect is to reduce the cost of capital. Driving or suggesting sales-related activities, implementing/guiding customer projects such as product and prototype selections, costing, pricing, quotations, preparation and looking after for serial production, and logistics setups.

How You Prepare to be a Business Engineer?

For one to be Business Engineer, the required background is:
1. Bachelor's degree in Mining and Petroleum Engineering or comparable technical field
2. Preferably up to 3 years' experience in technical and organizational business

3. Basic understanding of minerals, oil and gas trade and commerce
4. Risk assessment
5. Strategic planning
6. Advanced Microsoft Office with an understanding of calculation tools
7. Experience of CRM/ERP systems is an advantage

Skills

1. Enjoy working in an international environment without major food and drink choices.

2. Proactive, positive, and target-oriented team player with a keen interest in technical and commercial matters.
3. Very strongly customer-oriented.
4. Strong networker with good interpersonal skills and the ability to cooperate and communicate with many different layers and cultures.
5. Strong legal, ethical and moral understanding and knowledge

These are mostly the general skills required. Those will vary from organization to organization that can be learned in association.