



# The Business of Consulting Engineering

## What is a Consultant?

Someone once said that to be a consultant you must be an expert in your field, offer your services, and be attractive to deal with. While true, we must also add, know how to run a business.

It is unfortunate that many people believe that the only characteristic that counts in consulting is to be an expert - this is not so. There are consultants who rely solely on specialist expertise, but they are few and far between. The vast majority of consulting engineers in Canada - forming a \$7 billion industry comprising thousands of businesses ranging from tiny proprietorships to giant international engineering corporations - need a range of skills to be successful.

## Personality is a Must

While seemingly obvious, this is one of the areas where many consultants fail because the customer is usually incapable of differentiating between one consultant and another on a technical basis and will therefore tend to form an opinion of the consultant on mostly non-technical attributes, such as:

- Turning up to meetings on time
- Being polite
- Knowing how to read, write, and speak correctly
- Dressing appropriately
- Telling the truth
- Keeping promises
- Respecting people who know less about engineering than engineers do
- Listening well
- Having positive energy
- Having a sense of urgency
- Returning telephone calls and correspondence promptly
- After making a mistake - which everyone does periodically - deal with the issues promptly and get them fixed (- argue later)
- Treating the customer's money as if it were your own
- Always saying thank you

## Marketing Sets the Stage

The first rule of business is to get the work in the door, and this is done by marketing. The time when a professional could hang out a shingle for work to come in is long gone if, indeed, it ever existed. Most consulting firms spend a substantial portion of their fee income - and a greater percentage of their consciousness - on marketing activities such as:

- Researching potential projects and market directions
- Maintaining the appropriate quality of work
- Becoming known to potential customers and maintaining current relationships
- Understanding the appropriate levels of quality that the market demands
- Understanding the skills of competitors
- Building the image of the organization
- Networking
- Responding to request for proposals
- A myriad of other activities

Many firms, even quite small ones, have marketing staff or even departments, and marketing is often the principal activity of the senior management of the firm - the person who can consistently provide the firm with quality profitable assignments will be regarded as one of its most valuable players.

## Expertise is Necessary

This is not negotiable. Someone in the consulting organization must excel in the engineering disciplines offered and must consistently work hard to maintain that competence. This is required by law and is measured in British Columbia by The Association of Professional Engineers and Geoscientists of British Columbia, and elsewhere by similar organizations.

Voluntary - or in some cases mandatory - professional development and practice review programs are common means to ensure that professional competence is maintained and developed.

## Business Know-How is Essential

Again, this may seem obvious but the reality is that most small businesses fail within their first year of operation almost always due to inadequate business acumen. Some of the key issues to keep in mind are:

- Being entrepreneurial
- Treating employees well and caring about their welfare
- Never being too busy to send out the bill to the customer
- Never being too busy to collect the bill
- Understanding what 'cash flow' really means
- Planning ahead
- Being committed to running the business
- Remembering that profit is a good word and that professionals work for money, while amateurs work for free
- Always saying thank you

## Where Does the Money Go?

A simplified example illustrates the critical necessity of mastering the foregoing skills in consulting engineering practice. For a healthy consulting firm of about 50 people with an annual fee volume of \$5 million per year, the financial picture would be:

Revenue (fees charged)	\$5,000,000	100%
Total expenses*	4,750,000	95%
Profit (in a good year)	\$ 250,000	5%
Less corporate tax (subject to issues)	75,000	1.5%
After tax profit	\$ 175,000	3.5%

\* Direct costs (engineering time) \$2,250,000 45%  
Marketing costs (getting work) 400,000 8%  
Administration costs (running business) 2,100,000 42%  
(administration salaries, rent, heat, support personnel, bank interest, bad debts, insurance, employee benefits, employee profit sharing, etc)

It would take about \$1,000,000 of ownership investment cash - which is not borrowable - to allow this company to operate. The after tax return on investment for the owners would be 17.5%, which is good, but not spectacular.

It is important to note that only 45% of the fee revenue goes to engineering activities.

This Commentary was adapted from an article written by Thomas E Johnston PEng, Keen Engineering Co Ltd for the Association of Professional Engineers and Geoscientists of British Columbia in their publication 'Innovation'. Mr Johnston is the 1996/97 President of the Consulting Engineers of British Columbia.

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