



# Business Development Process and Competitor Analysis of Tata Consulting Engineers Ltd.

**Author 1: Dr. Jaya Yadav**

Designation: Professor, Amity Business School

Institutional Address: Amity Business School, F-3 Block, Amity University Campus, Sector-125, Noida-201313, Gautam Budh Nagar, U.P. (India)

Correspondence Address: 704, Richmond Park, Plot No- 9, Sector- 6, Vasundhara, Ghaziabad- 201012, U.P. (India)

**Author 2: Dr. Abhilasha Singh Raghav**

Designation: Asst Professor & HoD, Hindustan Institute of Management and Computer Studies

Institutional Address: Hindustan Institute of Management and Computer Studies, Farah Mathura

Correspondence Address: 91, Chhoti Haveli, Maitri bagh, Dayal Bagh, Agra

**Author 3: Thanesalyer**

Designation: Research Scholar, Amity Business School

Institutional Address: Amity Business School, F-3 Block, Amity University Campus, Sector-125, Noida-201313, Gautam Budh Nagar, U.P. (India)

Correspondence Address: The Nest PG, SL- 01, Sector- 126, opp. Amity University Gate Number- 2, Noida- 201303, U.P. (India)

## ABSTRACT

The Indian Engineering Consultancy industry has witnessed continuous rise in its demand and this has led to intense market competition and increasing saturation. The industry is achieving continuous upward growth and this trend is expected to continue for the foreseeable future. This study titled, “Business Development Process and Competitor Analysis”, has focused on the competitors and the business development process of Tata Consulting Engineers Limited (TCE), who are one of the markets leaders of this industry. Hence, the study has made an attempt to perform a competitor analysis with respect to the direct competitors of TCE, specific to its infrastructure vertical. Six direct competitors (3 local and 3 multinational) of the company were chosen and analyzed to understand their strategies and figure out how much of a threat they pose to the company. To understand the industry competitiveness better, a Porter’s Five Factors Analysis was also performed. Findings concluded that the limited ability of engineering consultants to differentiate their services, the ease of entry by competitors, the saturation of the market in mature engineering disciplines, oversupply of graduates with skill deficiencies and growing bargaining power of large governmental and financial institutions all continue to add to the competitive pressure of the industry. The study also identified some key success factors such as, a company’s ability to rapidly acquire new knowledge areas and quickly translate them into differentiated services, the successful alignment of the company’s offerings with the needs of the clients, the ability to attract

the right resources by using effective recruitment skills, the ability to increase the submission-to-win ratio of proposals by optimizing the response time of bid opportunities and also the ability to cultivate and manage relationships with clients, which are vital for a company to maintain its competitiveness in the market and can also be used to develop future strategies to improve its competitive advantage.

**Keywords:** *Business development, Competitive advantage, Competitor Analysis, Engineering consultancy, Market Competition,*

## 1. INTRODUCTION

Developing a company's strategy cannot be done effectively without first analyzing the competition and determining your own strengths and shortcomings within the market space. A competitor analysis can prove to be a vital tool to identify and exploit weaknesses of the competition and it can also help develop better business strategies giving the company a distinct advantage over others. This analysis also helps identify threats and challenges that the competitors can bring and thus helps the company fortify itself against the competition. Success and failures of the strategies utilized by competitors can also be observed which can allow us to establish reasons behind unsuccessful strategies, thus helping us figure out the key assets and skills required to beat the competition. The increasing saturation and intense completion in the Indian engineering consultancy market has forced companies to evolve and optimize their strategies so that they can deal with the intense industry rivalry.

### 1.2 Company Overview

Tata Consulting Engineers Limited (TCE) operates as an engineering consulting company and is a wholly-owned subsidiary of Tata Sons Limited. Tata Group is one of India's largest industrial conglomerates in the private sector, with its presence in over 100 countries across six continents. The Group has around 100 independent companies and a collective employee strength of about 600,000 across the world. TCE has over 3,000 employees in India spread across 7 Delivery Centers (DC) and also has established Dedicated Engineering Centers (DEC) to address the needs of their premium clients.

The company also has a subsidiary, Ecofirst Services Limited, which offers total sustainability solutions for its clients. The American magazine "Engineering News Record" (ENR) has ranked the company 130th out of the top 225 international design firms of the world, making it the highest ranked Indian Engineering Consultant in the list. The company is one of India's leading integrated engineering consulting service providers with several prestigious projects under its belt over the past five decades. TCE has executed numerous projects in India and overseas, providing concept to commissioning services in sectors such as Chemical, Infrastructure, Power, Steel Metal & Mining, Nuclear and Special Projects. Tata Consulting Engineers has completed over 7,150 projects till date in over 55 countries, covering diverse industries.

## 2. LITERATURE REVIEW

Nayal et al., 2021, pointed that the business and management literature related to the economic and social effects of the COVID-19 pandemic is growing rapidly ,

Laurent Scaringella , 2018, points that BD is linked to OI because a firm requires both inputs and outputs relating to the external environment. OI is “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation.

Sturm (2015) pointed out that Business Development (BD), as the name suggests, is basically about growing a business. It is the process of identifying opportunities for the company, developing relationships with clients and securing profitable work for overall growth of the company. The business development process is most effective when it is a smart combination of strategic analysis, marketing and sales. Professionals who are part of the business development team can be involved in everything from the development of the company’s products and services, to creation of marketing strategies, to generation of sales leads, to negotiating and closing the deals. The fundamental job of the business development team is to identify new business opportunities and exploit these opportunities to bring in more profits for the company and move the company closer to its long term goals (Teece 2010; Cassadeus-Masanell, Zhu 2013).

According to Gordon Barr, Dr. Stuart Burgess (2000) the business development process in the engineering consulting industry is specific to the process of identifying opportunities by looking for tenders (RFP) that have been submitted by potential customers. These tenders are usually submitted in online portals, government sites, newspapers etc. The process of identifying opportunities this way is known as Reactive Business Development, as this is only a reactive process for the business development team because they only react to tenders available in the public domain and are no way involved in actively looking for new opportunities by using other sources.

An article by Mel Lester (2013) also pointed out that Proactive Business Development on the other hand is when professionals in the business development team actively look for potential opportunities by interacting with professionals in the industry by going to conferences, being updated with current affairs and trends in the industry and looking out for future market trends. This process is less mainstream but it can lead to securing projects that would have usually been out of the scope of the public domain. Proactive business development also leads to improving the competitive advantage of the company in the industry and improves the overall win ratio by securing more projects for the company than its competitors.

Zilincan, 2015 in his study pointed out that in the engineering consulting industry, apart from the expertise, track record and experience a company has, the brand value and image of an engineering consultant is also very important. In today’s digital era, online presence has a lot to do with how a company’s image is portrayed in the digital world via its website and social media presence. A better performing, more interactive and more informational website creates more interest in the minds of potential customers and it also improves the brand image of the consultant.

### 3. OBJECTIVES

#### 3.1 Primary Objective:

- To perform a competitor analysis for Tata Consulting Engineers Limited (TCE) in the engineering consulting industry, specifically in the infrastructure sector of India.

#### 3.2 Secondary Objective:

- To find key success factors, which can help improve the business development process of TCE.
- To give suggestions to TCE on how to formulate better strategies to improve its competitive advantage in the market based on the study.

### 4. RESEARCH METHODOLOGY

A study was performed based on six direct competitors (3 local and 3 multinational) of the TCE, specific to the infrastructure vertical, which will help understand how they are coping with the increasing market competition from local, multinational and boutique firms. A competitor analysis was also carried out (specific to the infrastructure BU) which will be used to derive conclusions and develop key success factors that can help the company formulate better strategies for the future and improve its competitive advantage in the market. To understand the industry competitiveness better, a Porter's Five Factors Analysis was also performed. The data for the analysis will mostly be secondary in nature and it will be sourced from company websites, annual reports, online articles, journals, newspaper articles, reports from credit rating agencies like ICRA and public documents from the Ministry of Corporate Affairs (MCA) website. For the online website analytics, the data will be taken from SaaS (software as a service) platform companies like SEMrush and Google Analytics. Conclusions will be derived from the strategic analysis of the competitors to find key success factors, which can help improve the business development process of TCE and help the company formulate better strategies to improve its competitive advantage in the market. Content analysis is being used to analyze the study and draw conclusions for further researchers.

### 5. DATA ANALYSIS AND INTERPRETATION

#### 5.1 Porter's Five Forces Analysis (*Engineering Consultancy Industry*)

Porter's Five Forces Analysis is a strategic management tool which helps in analyzing the industry and understanding the levels of profitability in that industry for useful development of strategies. Engineering consultants can use this technique to understand how the five competitive forces influence the profitability of the company and develop a strategy to enhance long term profitability and build a competitive advantage. The profitability is inversely proportional to the strength of the competition, i.e. the stronger the competitive environment in the industry, less profitable it is.

### 5.1.1. Industry Rivalry

In the engineering consulting industry market competition occurs within two spheres. The large companies compete with each other for the bigger project undertakings while the small companies bid against each other for the smaller projects. The degree of interaction and mutual dependency among these competitors determines the extent of the rivalry between them.

These days most engineering consultants are intensely competing in an already saturated industry consisting of engineering services in conventional (mature) engineering disciplines (civil, structural, mechanical, electrical). Other than the large well established engineering consultants in the industry, there are an increasing number of small and medium sized engineering companies which provide specialized services in a niche segment.

In the past couple of years, the industry incumbents have been facing a high degree of competitive pressure primarily due to the economic situation, fluctuating demand and overcapacity. Also the smaller engineering consultants are expanding as they are gaining more experience and improving their capabilities through joint-ventures and technology transfer. This is resulting in more intense rivalry in the industry as they are competing with the bigger players for larger projects.

There is also increasing price-quality competition in the industry as the differentiation among engineering consultants is starting to diminish which is changing the focus to price vs. quality as a key competitive parameter. Clients are becoming more aware of the quality aspects of the services provided by engineering consultants as they are using Quality and Cost-Based Selection (QCBS) to evaluate the bidders. This is why there is increasing competition among established companies who are trying to provide the best quality service at a competitive price. On the other hand factors such as the company's past experience, expertise and technical qualifications of engineers, approach for tackling specific project problems are also taken into consideration while awarding engineering services contracts.

### 5.1.2. Threat of New Entrants

The barriers to entry for the engineering consultancy industry are very low with respect to the relatively low capital requirements of setting up a new company since they only require financial capital for fixed costs such as office space, hardware, software, office utilities etc. There are no heavy fixed cost investments like the ones in the manufacturing industry. Apart from these incidental expenses, the entrant has no financial capital related barrier to enter locally on a small scale. However, it must also be noted that as the once the entrant established itself, sufficient capital is required to fund projects if regular flow of income funds are interrupted. Even though this seems as a financial capital requirement, it is not seen as a formidable barrier for market entry.

When new entrants come into the market, they have to price their services competitively and, as a result, they experience decreased profits and even losses in the initial stages. The incumbent companies are likely to have components or artifacts from previous engagements which are useful and applicable for other engagements within the same industry, thus further reducing their cost of delivering the service. This can be seen a notable source of cost disadvantage for new entrants and thus acts as a market entry barrier.

As an engineering consultant company gains experience in the industry, certain cost advantages accrue to the company. An example of this can be the experience and learning curve advantages of any incumbent company. These companies are able to generate bid submissions more efficiently in less time. The process of responding to an RFP becomes quicker, as companies continuously understand the process (learning curve) and reuse parts of previous submissions (experience curve). This ability to efficiently generate and submit quality proposals enables these companies to respond to a greater number of RFPs for the same relative costs. Given the low ratio of contract wins to proposal submissions, this acts as an important advantage for the experienced companies and hence a market entry barrier for the new entrants.

Incumbent engineering consultants also have previously established network of contacts with major clients within the target market. Establishing these kinds of networks require time and effort by the companies and is treated as a sunk cost for the incumbent companies. New entrants which enter the market will not have these kinds of networks and hence may face higher costs to secure new opportunities.

### **5.1.3 Threat of Substitutes**

The degree of substitution for engineering consultants varies quite a lot. This is because potential customers can expand the concept of service substitution to include the option of simply not purchasing the service at all. This de-selection of services occurs when the customers company can manage in-house engineering services by building their own technical departments. This can be seen in the cement industry where the companies are investing in their own technical centers. The trend of utilizing in-house engineering services can mostly be seen for engineering design services and is becoming a potential substitute threat for the industry.

Another major threat for the engineering consultants is the large local and international contractors who are proactively identifying projects and executing them on a turnkey basis including, engineering design, construction, project management and financing. Usually these types of contractors integrate backwards in their organizations by creating full design units or by formation of strategic alliances with more than one engineering consultant. These alliances mean that the engineering consultants have limited professional privileges when compared to operating as an independent entity.

Another trend in the engineering consulting and design industry is the utilization of quasi-forward integration for customers who seek integrated solutions. Engineering consultants are bidding and getting involved in “design & build” contracts, thus trying to counteract the big contractors’ backward integration. This is known as quasi-forward integration because the engineering consultants take direct responsibility for the complete project execution from feasibility studies to commissioning and start-up, but physical works are carried out by sub-contractors on behalf of them. This means that clients who look for integrated solutions will look at these services as better substitutes thus increasing the threat of substitution for the normal players in the industry.

#### **5.1.4 Bargaining Power of Buyers**

In general, the engineering consultancy services have a target market which is made up of numerous customers (national/foreign industrial production units of different sizes, governmental agencies, local or regional public authorities, financing agencies for investments) and rarely private persons. As a result of this highly fragmented audience, an individual client or small-to-medium sized companies does not have too much bargaining power when dealing with large-sized engineering consultants because they do not represent a significant part of the total market value. In these situations the engineering consultants have the option of focusing on other potential customers instead of spending too much time dealing with an uncertain, difficult customer.

On the other hand when engineering consultants work on large investment projects funded by governmental agencies or large financial institutions, a single project can represent a significant portion of their revenue, thus giving the bargaining power back to the customer organization, especially when there is other competition present. This situation is obvious when large projects are granted through bids and many engineering consultants compete with each other to win the project. These large clients (governmental agencies, large financing agencies etc.) end up becoming very powerful as the volume of work undertaken by the consultants adds up to a large percentage of the whole industry workload.

Another reason for this high bargaining power lies behind the fact that the “switching costs” for the buyer is almost non-existent. This means that even if the governmental or financing agency awards the project to another engineering consultant, they will not incur any losses or costs.

The overcapacity of companies active in the industry, especially in the mature engineering disciplines (civil, structural, mechanical, electrical), is another factor which contributes to the increase of bargaining power of the buyer. Most consulting firms offer homogeneous service offerings which leads to lack of differentiation, thus giving the buyer a wider audience from which to secure the required services, hence increasing the bargaining power of the buyer.

On the other hand the emergent engineering disciplines which require experience and rare expertise, available with few companies, will have a friendlier competitive environment and hence lower bargaining power of the buyers.

### 5.1.5 Bargaining Power of Suppliers

For engineering consultants the most important issue is the supply of knowledge and know-how. This is why we cannot simply purchase the inputs needed for the production of their services. They require expertise in terms of qualified engineers and access to knowledge. For this reason it is more correct to refer to inputs rather than to suppliers.

Due to the knowledge intensiveness nature of engineering consultants, the only significant and real inputs for value creation are the knowledge, education, qualifications, skills, experience and capabilities of the employed professional engineers and designers who perform the services offered by the companies. The output knowledge of these engineers and designers are delivered to customers in the form of planning studies, feasibility studies, technical specifications and solutions, preliminary and final designs, workshop drawings, operation and maintenance instructions etc. which are storable and reusable.

Engineering consulting companies are dependent of these highly trained and qualified professionals as they provide their expertise and knowledge to the organization. For these companies the primary component is human resources and that is the only major and relevant aspect of suppliers' services, due to the nature of the industry. The supply of these knowledge resources varies according to the niche occupied by the consulting company. A company in the field of artificial intelligence or bio technology would have a limited supply and thus a higher bargaining power for the suppliers. Since the services offered by suppliers to engineering consultants in mature fields are not unique and there are an abundant number of engineers in the market, the bargaining power for them is not high.

## 6.FINDINGS

The strategic analysis of the competitors have shown that Tata Consulting Engineers has formidable competition in the infrastructure vertical but is still one of the markets leaders in the Indian engineering consultancy industry. The multinational companies have a larger pool of resources when compared to the local companies but their Indian subsidiaries are at par with the local engineering consultants. These Indian subsidiaries have the advantage of a strong parentage of global companies and also have a more strong and flexible financial position. In terms of the number of locations and employees strength, TCE has the most number of employees and office locations with respect to the local consultants. Feedback Infra has a larger employee base as they have multiple subsidiaries under the group, in other sectors as well. TCE also enjoys the



advantage of having most experienced track record as they have been active in the Indian market since 1963. The global companies also have an experienced track record but not in the Indian market.

Table 6.1

*Competitor Comparison*

Factors	Companies						
	TCE	Feedback Infra	STUP	ICT	Tractebel	Egis Group	Aecom
<b>Headquarters</b>	Mumbai (India)	Gurgaon (India)	Mumbai (India)	Delhi (India)	Belgium / Gurgaon	France / Gurgaon	U.S.A. / Gurgaon
<b>Office Locations</b>	8 (India) 7 Countries	7 (India) 4 Countries	9 (India) 5 Countries	4 (India) 7 Countries	5 (India) 32 Countries	4 (India) 68 Countries	5 (India) 68 Countries
<b>Established</b>	1962 (India)	1990 (India)	1963(India)	1987 (India)	2000 (India) 1986 (Int'l)	1994 (India) 1947 (Int'l)	2008 (India) 1990 (Int'l)
<b>Employees</b>	3,000 (India)	9,500 (India)	1,200 (India)	1,400	750 (India) 5000 (Int'l)	2,300 (India) 14,850 (Int'l)	2,500 (India) 87,000 (Int'l)
<b>ENR Rank</b>	# 130	-	-	-	# 38	# 21	# 2
<b>Accreditation</b>	ISO 9001	ISO 9001 OHSAS 18001 ISO 14001	-	ISO 9001	ISO 9001 OHSAS 18001 ISO 14001	ISO 9001 OHSAS 18001 ISO 14001	ISO 9001 OHSAS 18001 ISO 14001
<b>Revenue (FY 18)</b>	₹ 613.99 Cr.	₹ 954.75 Cr. (group)	₹216.71 Cr.	₹ 281. 6 Cr.	€ 675 mil.	€ 1.13 bil.	\$ 20.16 bil.
<b>Net Profit</b>	₹46.5 Cr.	₹17.57 Cr.	₹25.07 Cr.	₹ 1.9 Cr	€ 17.48	€ 21.9 mil.	\$ 136 mil
<b>Profit Margin</b>	7.57 %	1.84 %	11.56 %	0.67 %	2.59 %	2.16 %	0.67 %

\* Source: company websites, annual reports, ICRA reports etc.

TCE is also ranked #130 out of the top international design firms according to ENR, which is the highest rank for an Indian engineering consultancy company. Aecom is at the top with a rank of #2, which makes it one of the largest engineering consultants in the world. In terms of the accreditations TCE and ICT are lagging behind with just an ISO 9001 quality management standard, whereas Feedback Infra and the multinational companies have environmental management and health & safety standards too.

In terms of revenue Feedback Infra has the highest revenue (₹ 954.75 Cr.) compared to the other Indian competitors and Aecom has the highest revenue (\$ 20.16 bil.) from a global standpoint. It must also be noted that Feedback Infra has the highest revenue since it has multiple subsidiaries which add to the revenue of the group. STUP Consultants has the highest profit margin of 11.56% followed by TCE with 7.57 %. Compared to global companies, these companies are doing well in terms of the net profit with respect to the revenue generated.

## 7. CONCLUSIONS AND LIMITATIONS

### 7.1. Conclusion:

The limited ability of engineering consultants to differentiate their services, the ease of entry by competitors, the saturation of the market in mature engineering disciplines, oversupply of graduates with skill deficiencies and growing bargaining power of large governmental and financial institutions all continue to add to the competitive pressure of the industry. The market continues to be more crowded and keeps changing, however, for an engineering consultant to be able to achieve success, it must be able to quickly gain and disseminate knowledge to secure new opportunities. A company's ability to rapidly acquire new knowledge areas and quickly translate them into differentiated services will give it a competitive edge over the rest. Injection of new knowledge is also vital for advantage in the long run and achieve sustainability. Rapid knowledge gainers are able to effectively move into new markets and this also allows smaller sized engineering consultants to compete with large established ones.

The competitive crowded market generates a low win-to-submission ratio which can be overcome by optimizing the response time of bid opportunities hence increasing the chances of generating more potential wins in shorter timeframes. When the company is able to do so at a lower cost than its rivals, it is able to increase its profit margins. This profit then helps in attracting new resources, engaging in knowledge management and managing clients. The relationships with the clients must also be carefully cultivated and managed to optimize the company's chances of success. By building an attractive client list and with a solid cadre of consultants, companies can differentiate itself from its competitors and command higher profits. Strong established relationships with clients can also result in repeat sales to the same or closely related clients with lower costs of marketing.

An engineering consultancy company must also be able to weather out market swings in the industry. During rapid upturns in the market the threat to the company's survival is low, provided it can retain its consultants as competitors may try to approach them. However, during downturns, a company can incur major losses or even be forced out of the market if it doesn't respond to the change appropriately. At the moment, the infrastructure industry in India is on the rise but the real estate industry is going down. Engineering consultants need to take decisions according to the market conditions by investing in the right areas and cutting their losses where necessary.

### 7.2. Limitations of the Study

- The study is constrained to just one sector (infrastructure sector) in the Indian market.
- The study is based on secondary research techniques, which is not the same as primary research.
- The analysis is mostly theory based and doesn't not include too much statistical data.

- Financials used in the study, though collected from reputed sources like ICRA, are not from company disclosed documents.

## 8. RECOMMENDATIONS& SUGGESTIONS

TCE can focus on the previous mentioned success factors to build better strategies and optimize their BD process. Optimizing the response time of bid opportunities will effectively help them improve their win-to-submission ratio and if they are able to do this at a lower cost than their competitors then the company will be able to increase their profit margin and hence focus more on attracting new resources and engaging in knowledge management.

TCE can also take the example of Feedback Infra group and focus more on expanding into new sectors and acquire smaller companies in other sectors. Unlike many of its competitors TCE is not involved in sectors such as roads, railways, metros etc. Acquiring new knowledge areas and quickly translating them into differentiated services will help the company grow even more and expand its reach. Moving into these new markets will help TCE achieve long term sustainability.

For TCE to have a better chance of winning more contracts, the engineering consultant must be able to deliver services that the client values and this can be achieved by having skilled and experienced human resources. The company should focus on attracting the right resources by using recruitment skills such as networking within the industry or courting from several engineering and business schools. Without a successful alignment of the company's offerings with the needs of the clients, the consultant cannot be competitive in the market. It is also vital that the TCE focusses on retaining these resources in the long run as the attrition rate in the industry is on the rise.

Apart from the expertise, track record and experience a company has, the brand value and image of an engineering consultant is also very important. The impression management of a company can also prove to be an effective way for an engineering consultant to differentiate itself from its competitors. Clients perceive companies with a reputed image and strong brand value as a superior fit to their needs and hence it helps in achieving a competitive advantage. This is where Search Engine Optimization (SEO) and online website performance is a major factor. Taking the example of Aecom, we were able to see that their website generates the highest traffic with a low bounce rate and high avg. visit duration. This results in a higher search engine ranking leading to more business for the company and better brand image. TCE should focus more on optimizing their website for better keywords, more useful content, improve website load speed and especially improve its social media presence.

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