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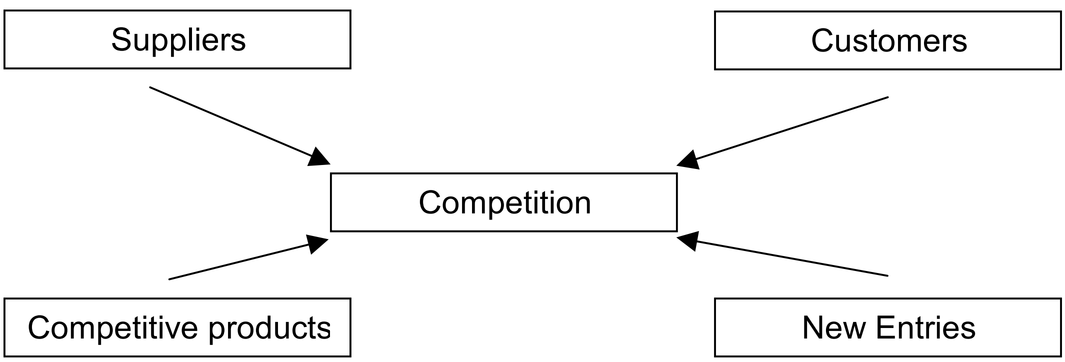
Trends and concepts in the European Construction Industry

The European construction industry as a whole is underachieving, has low profitability and shows too little investments in capital, research and development and training, is not very innovative, while too many clients are dissatisfied and risks are high.

However, our research has shown that for a number of companies these perceptions are unjustified. In the past few years a number of European contractors like Amec and WS Atkins have changed their way of doing business dramatically, leading to improved risk/reward ratios (higher margins), greater pricing power towards clients and less dependency on the macro-economic situation.

Figure 1: Porter model of the Construction industry



If we use a Porter model for the construction industry we can conclude the following:

Suppliers

Because of the relative high concentration and strong local positions of suppliers of building materials, they have pricing power to their clients.

Customers

Clients traditionally award most of their projects in the public tendering market. In general, this results in low margins and a relatively high risk level.

New entries

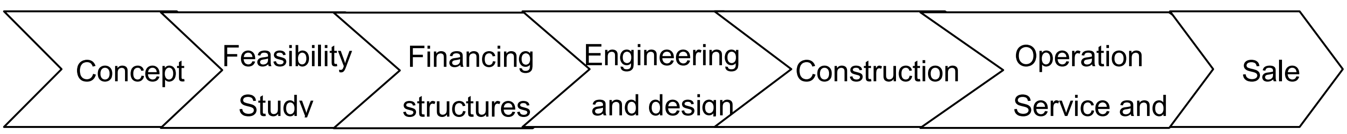
The barriers to enter the construction market are low. Everyone who is a bit handy can get in business.

Competitive products

This last factor has not a significant impact for the industry as a whole. However, as "favourite" locations change and if telework expands maybe "competitive products" get a new meaning. If we take these characteristics of the 'traditional construction view' into account we can conclude that the business of offering straightforward construction capacity is highly sensitive to the macro-economic environment (interest rates, economic growth, consumer confidence). Construction is also viewed as a mature market with only limited growth potential and low margins.

However, some companies have radically changed their way of doing business. They are shifting in the value chain, from the segment of brick laying (construction) backward to the engineering and design segment and forward to the operation, service and maintenance segment of the chain. In both segments higher margins can be achieved and provide construction companies with more pricing power towards suppliers and clients (higher margins and lower risks) and make them less sensitive to the economic cycle. We expect that these developments in the course of time will also lead to an improved perception among investors as examples in the United Kingdom has proven.

Figure 2: The Construction Value Chain



Changing business model

Our research has shown that more and more (leading) European construction firms are changing their business models by:

a) improving the position to the suppliers: centralise procurement

b) improving the position to the client: change from supplier to partner

c) increasing entry barriers: provide total solutions

Ad a) improving the position to suppliers: centralise procurement

Building material suppliers have a relatively high pricing power compared to the construction companies, mainly because of the relatively high concentration of the suppliers (multinationals like Saint Gobain, CRH and Lafarge have dominant positions) and because of their strong local presence in relation to high transportation costs. In the past few years the larger European construction firms have realised that they can counterbalance the power of the building material suppliers by centralising their own purchasing activities. Those companies have started to invest heavily in information systems to bundle at first instance the procurement of their branches.

We believe, however, that only the largest construction companies have the ability to counterbalance the large, multinational building material companies. These construction companies can offer their suppliers large block orders and lower ordering costs using electronic purchasing in exchange for lower prices and better logistics (just-in-time). As a result the large construction companies have a competitive advantage over the smaller companies. Lower purchasing costs are also an important synergy effect for the large construction companies that are aggressively buying smaller rivals.

Ad b) improving the position to the client

Traditionally, the relationship between the client and a construction company has often been pressured, since both parties had different goals. Clients awarded projects on the open tendering market, based on their design, and construction companies had to land projects under fierce price competition. As a result, the contractors landed projects with pre-calculated operating margins in the range of 2% and were responsible for most of the setbacks. In general, construction companies tried to improve their margins by making modifications to the original design, and often they only received the last payment after a long legal battle over the extra costs of additional work done.

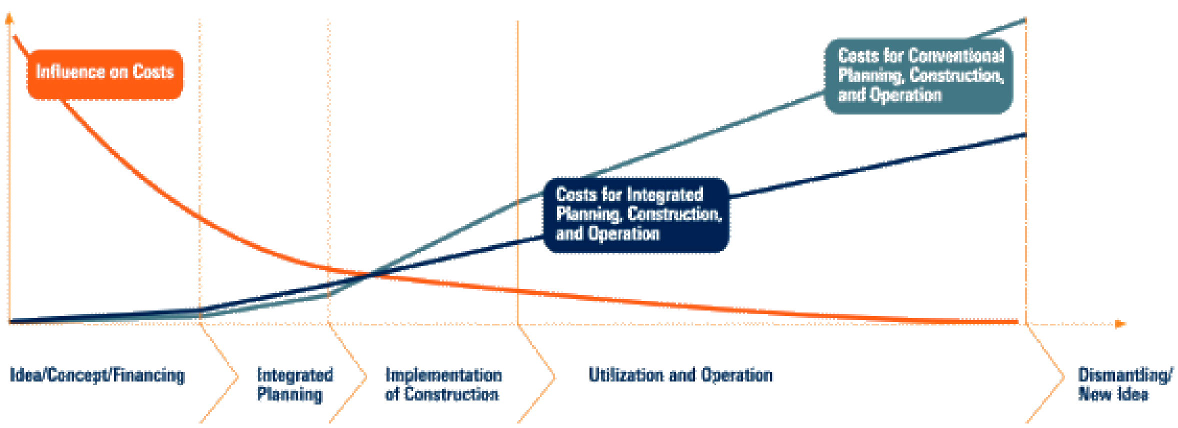
Gradually, the client and construction companies are realising that this model is sub-optimal. This conclusion was stated for the first time in the report "Rethinking Construction" of Sir John Egan in 1998. The report was made by order of the British government and stated that the industry as a whole is underachieving, has low profitability and that there are too little investments in capital, research and development and training, while too many clients are dissatisfied. According to the report the industry has to focus on long term relationships (through partnering in the value chain) besides reductions in construction costs, time and defects. The report had impacted the entire European construction industry and is still very alive among European construction companies.

Legal fights are expensive, clients are not using the expertise of construction companies and disputes concerning modifications prolong the production time. We observed several market trends that are improving the position of construction companies towards clients:

1. Partnerships with clients

Teaming up with the client in the first stage will lead to fewer legal disputes and can considerably reduce tendering costs. The construction company can use its expertise in the design phase to lower the construction cost and to lower the costs of the assets over the life cycle (life cycle management). To create a win-win situation, part of these cost advantages will be passed on to the client. For instance, when projects are completed ahead of schedule, both client and construction companies share the benefits equally.

Figure 3: Partnering and construction costs and life cycle costs



Source: Tessag

2. Roll out long term relationships

In addition, partnership is a good opportunity to roll out long term relationships with a client, thereby creating opportunities for standardisation of work (development of concepts). In the United Kingdom many construction companies already have long term relations with retailers, property developers, utilities and multinational clients. For instance, the construction company and client develop a standardised concept, in close co-operation, to re-new 150 retail stores. The client and construction company both share the profits from a steep learning curve and the switching costs for the client also increase. Furthermore, the contracts are of longer duration, which makes the construction companies less sensitive to the economic situation.

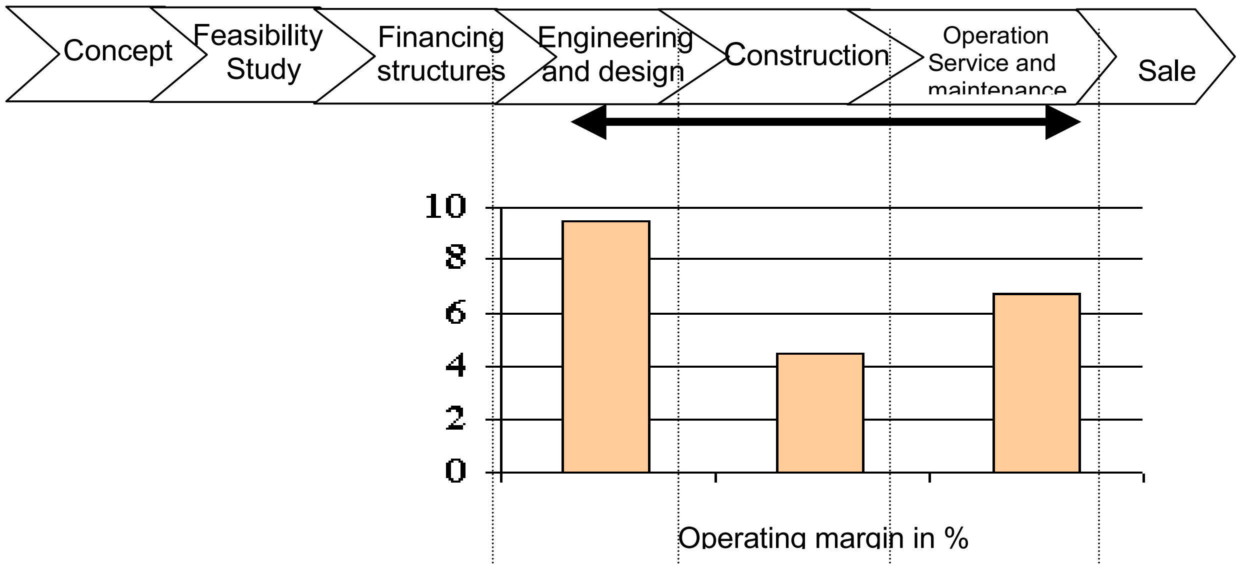
3. Investing in a solid land bank

A land bank enables the construction company to develop its own projects and be independent of the public tendering market where the competition is high.

Ad c) increasing entry barriers by providing total solutions

Construction companies are increasing the barriers to entry by forward- and backward integration. The barriers to entry in general construction are low and unlikely to change (equipment can be rented and only low skilled employees are needed). As evident in figure 4, providing straightforward construction capacity (the middle segment of the value chain) is, in fact, low-margin construction work. By shifting forward and backward in the value chain, margins can be improved.

Figure 4: Value chain of the construction industry



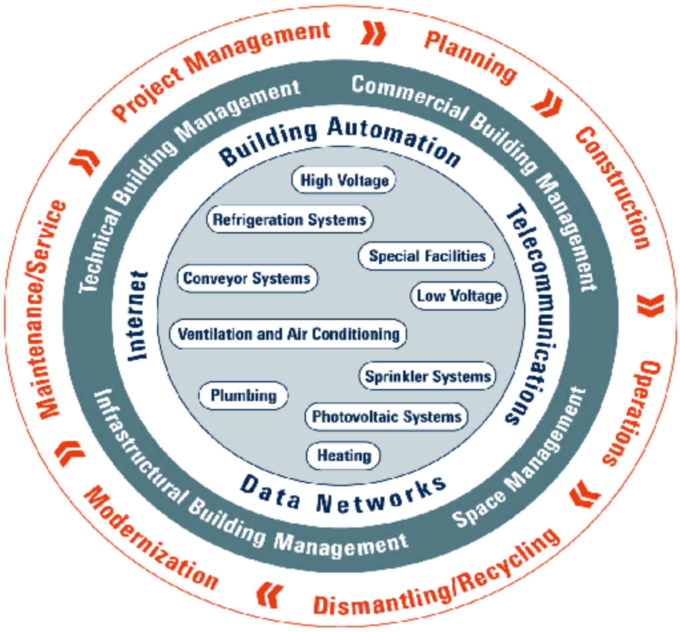
Source: FD

Construction companies can add more value for their clients by shifting the core of their activities towards consultancy, in which they advise clients and design projects. Project management is far more interesting in terms of margins than the actual execution and, as a consequence, an increasing part of the commodity work can be outsourced to subcontractors in fierce price competition.

In addition, we believe that the introduction of new contract forms like PFI (Privately Financed Initiatives) and BOT (Build-operate-transfer) will rapidly become more popular in Europe. Especially the largest construction companies with strong track records and good balance sheets will profit from this trend. These new contract forms also mean that construction will become more capital intensive and that companies will have to attract highly skilled engineers, thereby increasing the barriers to entry in favour of the largest companies.

If we look at the value chain from designing to long term maintenance, some construction companies are able to offer life cycle and facility management.

Figure 5: Life Cycle Concepts



Source: Tessag

As the cost of the life cycle of the asset is becoming more important than the execution price of a project, the importance of long term maintenance and facility management contracts are growing at the expense of the execution of the project. This is resulting in more stable relationships with clients and therefore more predictable cash flows for construction companies. Finally, long term maintenance and facility management contracts lower the company's risk profile since they reduce the cyclical character of the business.

Facility Management is a widely abused term, but generally, Facility Management can be categorised into:

- Technical FM
  - Building Services
  - Energy Management
  - Operation & Maintenance
  - ICT
  - Safety / Security systems
  - Management Services

- Service FM
  - Catering
  - Cleaning Services
  - Switch Services
  - Parking
  - Guard Services
  - Day Care / Elderly care
- Business Related FM
  - Logistic Services
  - Human Resources Services
  - Administrative Services

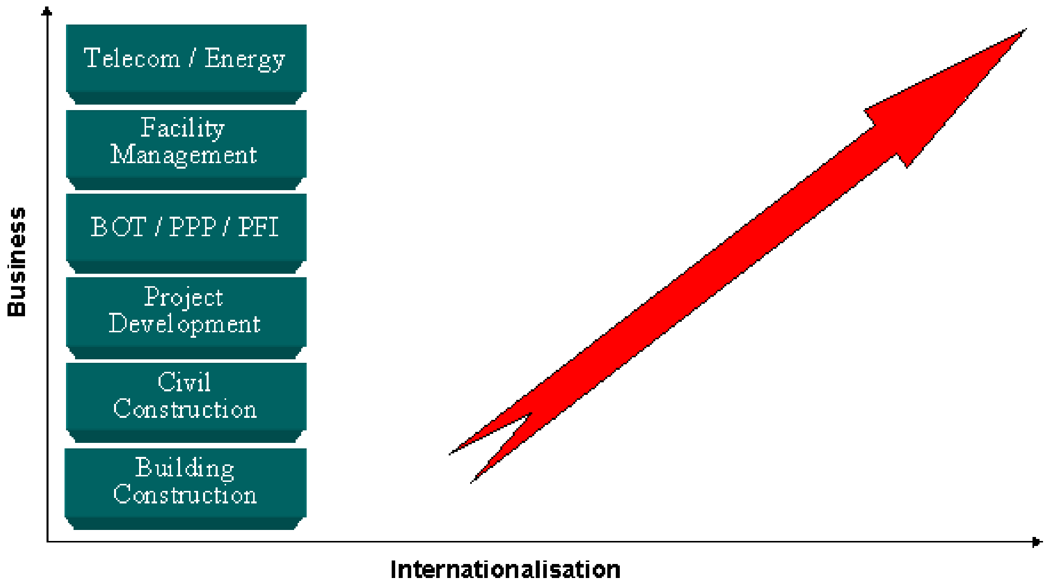
For the construction sector Technical FM is the most appealing together with perhaps parking in relation to BOT projects.

<u>Internationalisation</u>

As mentioned above, construction is mainly a local business where the value of the building industry is dominated by local resources such as land, labour and building materials. However, it is not necessary that in the end the final responsibility and knowledge will be in the hands of local companies. It is important though that the clients will get the best value for their money.

One of the ways to achieve that is through international partnership networks which includes parties like banks, IT consultancy companies, facility management companies and of course designers, engineers and project managers. In this way companies can compete with international conglomerates and can offer solutions that matches the needs of clients.

Figure 6: Internationalisation of concepts



Furthermore, this kind of partnerships are able to develop PFI concepts. For example French contractors are successful in the United Kingdom by creating collaborations with large financial institutions.

Conclusions

In conclusion we believe that the European trend in the construction industry on focusing on high added value services is based on:

- Low margins in traditional building activities;
- The trend of outsourcing non-core activities in the industry and commercial building sectors;
- Projects are becoming larger and multidisciplinary; integration of infrastructure, non-residential and residential construction (offer total solutions);
- The increasing ratio of the installation component in the total building offer mainly due ICT and the increasing complexity;
- From craft to industry (pre-fab building, reduced failure cost by improving the logistics and the introduction of state of the art IT systems);

- Form capacity to solutions: PFI, BOT and more capital consuming (equity stakes, land bank). Changing mix of employees from lower skilled craftsman to highly educated engineers;
- Growth by acquisitions (abundant room for synergy: purchasing costs, integrating back offices, logistics, equipment services, sharing of knowledge and references);
- From project focus to long term cash flows (maintenance contracts on basis of the installed base, life cycle and facility management). This is making companies less sensitive to the macro-economic situation;
- The liberalisation of energy markets: new opportunities in the field of energy management services in relation to technical management and maintenance.

The latest European trend of technical installation & maintenance companies is the development of branch specific, total multi-technical solutions with close customer focus through account management.

Advantages could be:

- matches customer demands for sector expertise
- sector leading
- international growth
- cross selling of multi services

Interesting sectors could be:

- Health care
- Education
- Telecom
- Other public
- Road
- Rail
- Water
- Power

- Telecom
- Airports
- Oil & Gas
- Pharmaceuticals
- Commercial Property
- Retail
- Leisure