

TOWARDS THE IDENTIFICATION OF FACTORS AFFECTING THE DEVELOPMENT OF SMALL SIZED CONSTRUCTION CONTRACTING ORGANISATIONS

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The UK construction industry is characterised by its fragmentation into large numbers of small sized construction contracting organisations. Previous data has indicated a record of failure of such construction based enterprises especially in times of economic recession. A study has been conducted with small sized construction contracting organisations in order to explore the pertinent factors found to affect their survival and/or growth. The participants in the study were selected from the University of Salford's Leading Enterprise and Development (LEAD) programme, which seeks to promote successful companies in business. The study was conducted from an interpretative perspective using a qualitative approach. Six in-depth semi-structured interviews have been conducted with key players in commercial/residential construction contracting organisations including the owners of two failed businesses. The methodology adopted allowed the generation of "insider accounts" that provided rich deep contextual data. From the interviewed participants, a number of factors have emerged that have been classified under the headings of service orientation; supply-chain; quality benchmarking; trading period; critical self assessment; specialist service; employment status; local links to community and inadequate control measures. Further data analysis and comparison with factors identified from literature allowed an initial conceptual framework of factors thought to aid the development of small sized construction contracting organisations SCCOs. The framework provides the basis of further data collection so as to ensure greater robustness of the emergent framework.

Keywords: small sized firms; development, growth.

INTRODUCTION

Research into small sized construction contracting organisations SCCOs is limited. The shape and size of the construction sector is in continual flux and reflects the demands placed upon it. The specialisation of sub contractors and the growth of self employment have become widespread since the 1970s. This has transformed the construction industry into an industry characterized by fragmentation and large numbers of small sized companies.

This research is concerned with micro and small sized companies which has been identified in this paper as small sized construction contracting organisations (SCCOs) employing between 1 and 50 staff. Table 1 indicates the main features of such micro and small sized organisations as set out by the European Union (2005).

Table 1. Micro, small and medium sized firms European Union (2005)

| Enterprise category | Headcount | Turnover | or | Balance sheet total |
|---------------------|-----------|----------------|----|---------------------|
| medium-sized | < 250 | ≤ € 50 million | | ≤ € 43 million |
| small | < 50 | ≤ € 10 million | | ≤ € 10 million |
| micro | < 10 | ≤ € 2 million | | ≤ € 2 million |

The Office of National Statistics (2012) determined the failure rates for small businesses operating in the United Kingdom Construction Industry for 2009 were 19.1% out of 19,008 firms and in 2010 there were 18.4% failures. This shows that the trading period of construction contracting organisations, especially for newly formed micro and small sized organisations cannot be taken for granted. It is interesting to reflect that similar percentage figures have been found in the United States where the Surety Information Office (SIO) determined that failure rates for small businesses operating over a two year period to be 21.7%. Initially literature has been reviewed in this paper to identify factors thought to influence the development of

LITERATURE REVIEW

Achanga *et al.* (2006) research although limited both in terms of geographical location and size Achanga acknowledged that many SMEs were vulnerable in that they operated in sectors where there were few barriers to new entrants and where they had little power to dictate to suppliers their needs. Porter (1980) set out the “five forces” framework representing the impact of participating parties that contributed to the construction industry and the continual demands placed by each sector on one and another. Karagiannopoulos *et al.* (2005) operating from Lancaster University’s department of management science described the impact of Porter's “five forces” in terms of the intensity of rivalry among competitors and claimed that was the most significant of Porter's “five forces”.

The second factor identified by Porter (1980) that threatened potential new entrants’ impacts on the micro and small sized construction contracting organizations was the influence new entrants have on the average levels of industry profitability. The most common forms of barriers to entry of SCCOs, is usually the scale and amount of the investment required by a SCCO to enter the industry as an efficient competitor. The threat that substitute products pose to industry's profitability is another factor that impacts on the development of a SCCO. This threat depends on the relative price-to-performance ratios of the different types of products or services to which customers can turn to satisfy the same basic need. Buyer or client power is one of the two horizontal forces that influence the appropriation of the value created by an industry and as such is a factor that has an impact on the survival and development of a SCCO. The most important determinants of buyer power are the number and the concentration of potential clients in a particular geographic location. Other factors related to ‘buyer’ or ‘client’ power are the extent to which the buyers are informed of alternative suppliers and the concentration or availability and differentiation of the competitors to the newly formed micro and small sized construction contracting organizations. The last factor illustrated in Porters five forces model (see Fig.1) is supplier power. This is the mirror image of buyer power. As a result, the analysis of supplier power typically focuses first on the relative size and concentration of suppliers relative to industry participants and second on the degree of differentiation in the inputs supplied. The ability to charge customers different prices in line with differences in the value created for each of those buyers usually indicates that the

market is characterized by high supplier power and at the same time by low buyer power (Porter, 1989, 1996).

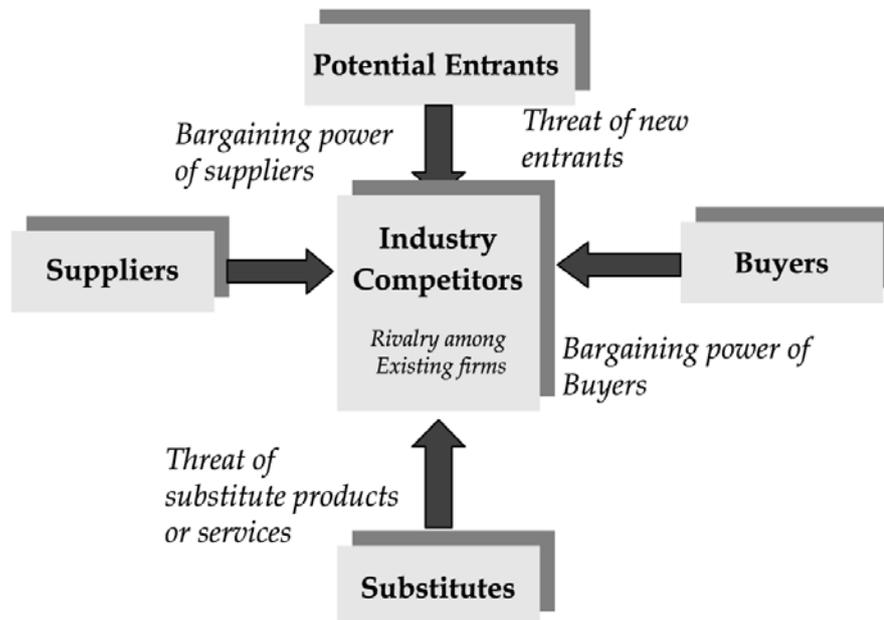


Figure 1. Porter's five forces (Source Porter 1980).

In addition to Porter's five forces model Hewitt (1997), asserted further factors such as (i) customer focus, (ii) process management, (iii) continuous improvement, (iv) innovation, (v) supplier partnership, (vi) people development and involvement, (vii) leadership and (viii) consistency of purpose as issues that are required to be addressed by small business organizations in their development. However Hewitt's work was with and selected companies that came from a general business background and not specifically construction based enterprises. Achanga *et al.* (2006) investigated critical success factors for lean implementation within SMES whereby the critical success factors which were thought to affect the development of a SCCO and are detailed as, (ix) leadership and management, (x) finance, (xi) skills and expertise and (xii) culture of the recipient organization. Achanga (2006) identified leadership and management commitment to be the most critical of the identified success factors.

In an exploring the literature related to factors that were thought to determine success in SCCOs it is important to reflect on business failure. Arditi *et al.* (2000) drew on a number of academic sources to define business failure and cited the seminal work of Frederikslust (1978) who suggested that business failure is the inability of a firm to pay its obligations when they are due. Although this statement was made prior to the current recession it's content is relevant to any business cycle supporting a further factor being (xiii) the need to maintain a positive cash flow as being a factor relevant to the survival and development of a SCCO. The thirteen factors (i) – (xiii) identified above from Hewitt (1997), Arditi *et al.* (2000) and Achanga *et al.* (2006) can be classified within the six headings from Hewitt's (1997) business excellence model which was developed to promote improvement and best practice in industry and was categorised under six headings: (a) People Management (b) Policy and Strategy (c) Resources (d) People Satisfaction (e) Customer Satisfaction and (f) Impact on Society to develop an initial conceptual frame work of factors based on literature that were thought to impact on the success of micro and small construction contracting business enterprises. These factors and classifications are in table 2 below.

Table 2. Classification of Success Factors

| Factors from literature | Classifications from literature |
|---|--|
| (i) Customer focus | (e) Customer Satisfaction |
| (ii) Process management | (b) Policy and Strategy |
| (iii) Continuous improvement | (b) Policy and Strategy |
| (iv) Innovation | (c) Resources |
| (v) Supplier partnership | (d) People Satisfaction |
| (vi) People development and involvement | (a) People Management |
| (vii) Leadership | (b) Policy and Strategy |
| (viii) Consistency of purpose | (f) Impact on Society |
| (ix) Leadership and management | (b) Policy and Strategy |
| (x) Finance | (c) Resources |
| (xi) Skills and expertise | (c) Resources |
| (xii) Culture of the recipient organization | (f) Impact on Society |
| (xiii) Positive cash flow | (c) Resources |

Apart from Frederikslust above, Arditi *et al.* (2000) cited Altman (1993) definition of business failure as “a company is considered to have failed if the realised rate of return on invested capital, with allowances for risk considerations is significantly and continually lower than prevailing rates on similar investments.” Watson and Everett (1993) attributed business failure to four different situations: discontinuance for any reason; ceasing to trade and creditor loss; sale to prevent further losses and failure to make a go of it. Although Frederikslust, Altman and Watson and Everett developed their hypotheses from different times and backgrounds many business failures can also be related to definitions. There are critical success factors associated with other management disciplines that can be adopted for SCCOs. Chan *et al.* (2004) who focused their research on project related projects and based their conclusions on seven major journals in the construction field which was instrumental in developing a conceptual framework for factors affecting project success and this was structured under five categories. The factors within the categories have been found to be both inter-related and intra-related.

It was resolved to explore the relevance of the factors identified above from Hewitt (1997), Arditi *et al.* (2000), Chan *et al.* (2004) and Achanga *et al.* (2006) suspected as impacting on the survival and development of SCCOs.

RESEARCH METHODOLOGY

Given the nature of the research problem identified above it was resolved to adopt a qualitative research approach whereby a true grounded theory approach was adopted that sought to gain data from practitioners in the field before literature related to the subject area was accessed and analysed (Straus and Corbin 1990). The interviews were sought to obtain information from the collection and analysis of insider accounts from leading actors within small sized construction contracting organizations SCCOs. The qualitative researcher has adopted an interpretive approach to the analysis of information obtained from organisations labeled as companies A-F who are categorized as small sized construction contracting organizations.

Ekanem (2007) developed the “insider accounts” approach from qualitative based research techniques into a research method in its own right to overcome the shortcomings of research with small firms. The philosophical approach was to treat people as subjects and as such therefore enable the interviewee to produce accounts of their world. This research is much more practical in small firm research, which by definition employs less than 50 people; research that uses alternative qualitative approaches such as ethnography and action research would become conspicuous and perceived to be in the way where the presence of researchers within such SCCOs would be likely to become less welcome. Through less familiarity with the organisation and its staff this interviewing technique provides detachment between the researcher and the organization and enables a good understanding of the small firms and their owner-managers to be developed. It was determined to use “insider accounts” as the technique to be used for the research.

The choice of using semi-structured open ended questions was used to encourage meaningful responses (Patton 1990). The interviews were conducted over one session so as to put the interviewees at ease and they were assured of their anonymity. This approach allowed the sessions to progress in a less constricted context. By posing the questions in a semi-structured fashion, the conversation was allowed to develop into areas where new information may have been found. This choice of interview technique facilitated a more relaxed discussion, which allowed a relationship of trust to develop.

RESEARCH FINDINGS

Raw data amassed from semi-structured interviews was held with companies A-F being a purposeful sample of six micro/small sized construction contracting organisations, all of whom met the criteria established in table 1. The interviews were conducted in four stages initially being company A operating as a general contractor. Company B a specialist contractor was subsequently seen then companies C and D offering specialist services were interviewed on the same day. To make the investigation more robust two failed companies were approached to ascertain what differences (if any) were identified and to establish what factors contributed to their failure? The results of the study have been indentified in table 3 and they were interviewed at their place of work between 23rd June 2011 and 07th February 2012. The information gleaned from the interviews was broken down to identify significant aspects of the data and then categorized. This was undertaken by initially transcribing and reading the transcripts to identify categories of response, testing the categories by classifying responses, explaining the raw data and finally, clarifying how the data was analysed.

From the result of table 3 the following factors were identified. Factors 1 (service orientation) and 2 (supply-chain) were consistent with all interviewed companies. Factor 3 (quality benchmarking) and 4 (trading period) were shared with all the successful companies. Factors 6 (specialist service) and 7 (local links to community and business) were indentified with companies B, C, and D only but factor 8 (inadequate control measures) was specific to the two failed companies only. The research therefore indicates that inadequate control measures were the identifying factor that differentiated between successful and failed company status

Table 3. Factors pertaining to successful and failed companies

| | Success factors identified above for successful company A: | Success factors identified above for successful company B | Success factors identified above for successful companies: C and D | Factors identified above for failed companies: E and F |
|---|--|---|--|--|
| Factors Pertaining to interviewed companies | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 |
| | 3 | 3 | 3 | x |
| | 4 | 4 | 4 | x |
| | 5 | 5 | x | x |
| | x | 6 | 6 | x |
| | x | 7 | x | x |
| | x | x | x | 8 |

x = not applicable

Key to factors highlighted in table 3

1. Service orientation
 - a. Commercial and/or residential customer base
 - b. Problem solving
 - c. No hard sell
2. Supply-chain.
3. Quality benchmarking.
 - a. Affiliation to institutional organisations.
4. Trading period – basis for selection of cases
5. Critical self assessment.
6. Specialist service.
7. Local links to community and business.
8. Inadequate control measures – Failure: (i) cash flow (ii) communication (iii) interest rates (iv) use of inadequate and irrelevant contracts

The results from the literature review and data analysis have identified the following criteria as being relevant to small sized construction organizations seeking to grow and survive in business. Six companies have been interviewed; four found to be ongoing successful companies and two who experienced failure. A number of open ended questions were asked and comments from the company owners may be found in the following sub-headings 1-8 which are the key factors for table 3 that have been established from the interviewed organisations.

SERVICE ORIENTATION - All the interviewed companies pursued a commercial and/or residential customer base with the exception of Company D who commented: “We do most of our work for either new housing developers or commercial developers of industrial sites”. Company E was the only firm who didn’t offer problem solving as a benefit to his failed business. Companies A, B, and C have a “no hard sell policy” The company B owner remarked: “we have never had to break into a sweat to bring business in”.

SUPPLY CHAIN (EMPLOYED STATUS) - Companies A, B, C and F had a mixture of self employed and employed labour whereas company E only used sub-contract labour and company D only employed their own staff and stated “No they are all employed by the firm and have done for a great many years. Probably 15 years ago we started employing everybody”.

QUALITY BENCHMARKING - All companies had or aspired to belong to a professionally aligned industry institute with the exception of the two failed companies E and F.

TRADING PERIOD -All companies had been trading for more than twenty years with the exception of the two failed companies E and F.

CRITICAL SELF ASSESSMENT - Company A has promoted standards of excellence including customer focus, continuous improvement, leadership and consistency of purpose as a development process within the business. Self assessment of a business will make it more focused and competitive, this is borne out by comments from company B who had worked out that “87% of our work was thought a recommendation or a referral or existing customers coming back for more”.

SPECIALIST SERVICE - Companies D, E, and F representing 50% of the interviewed companies offered a specialised service.

LOCAL LINKS TO THE COMMUNITY - Company B offered local links to community and business and confirmed “we’ve always had a strong sense of community for what we do and the fund raising that we do is never for a national charity.

INADEQUATE CONTROL MEASURES - By comparison data from the failed businesses (companies E-F) revealed that they have not managed to keep control. The business owners had either been unable or unwilling to communicate the business interests within their own business community and it is evident that associates have had their own agendas which has resulted in business failure due to a lack of control by the business owner. The owner of company E commented “it’s always one of the partners who thinks it’s the other partner’s fault because they’re not pulling their weight and vice versa”. He cited another reason for business failure by attesting to a lack of cooperation between the partners and commented “It’s not a job I had control over because of the electrical side of it and my partner running that and I very rarely visited. Yeah it would have interested me if it had been mine”. Further reasons for business failure were cash flow, late payment and inadequate written contract agreements “Well we’d always struggled to get payment off him, he was always late, but the last one, because it involved a holiday period, Christmas. And there was timings to be set we actually worked all over Christmas for him only to find out that when we billed him for it all it then added up to £19,000 and he disappeared”. When asked what was the contract agreement? He retorted: “Gentleman’s agreement because he was involved with the Round Table and so was my partner”. The owner of company F responded to the question “when asked what you thought made your business fail” was: “Well, obviously a lack of work. The bank rate shooting up and borrowing money at the wrong time. We couldn’t work out of it. The assets wouldn’t sell so it was the end, and of course we had a huge number of companies that went down on us”.

After establishing the success factors from companies A-F identified in table 3 and the literature these have been collated and compared for their compatibility with each other and the findings have been listed in table 4.

Table 4. Relationship between Success Factors from literature and practitioner interviews

| Factors from literature | Factors identified by interview |
|---|---------------------------------|
| (i) Customer focus | (1) Service orientation |
| (ii) Process management | (2) Supply chain |
| (iii) Continuous improvement | (2) Supply chain |
| (iv) Innovation | (1) Service orientation |
| (v) Supplier partnership | (2) Supply chain |
| (vi) People development and involvement | (2) Supply chain |
| (vii) Leadership | (5) Critical assessment |
| (viii) Consistency of purpose | (6) Specialist service |
| (ix) Leadership and management | (3) Quality benchmarking |
| (x) Finance | (8) Inadequate/Control measures |
| (xi) Skills and expertise | (6) Specialist service |
| (xii) Culture of the recipient organization | (7) Local links |
| (xiii) Positive cash flow | (8) Inadequate/Control measures |

Figure 2 has been developed from tables 2-4 illustrating classification headings from Hewitt's (1997) Business Excellence Model. The factors identified in table 4 have been brought forward to show the inter-relationship between factors from literature, depicted to the left and the practitioner findings on the right.

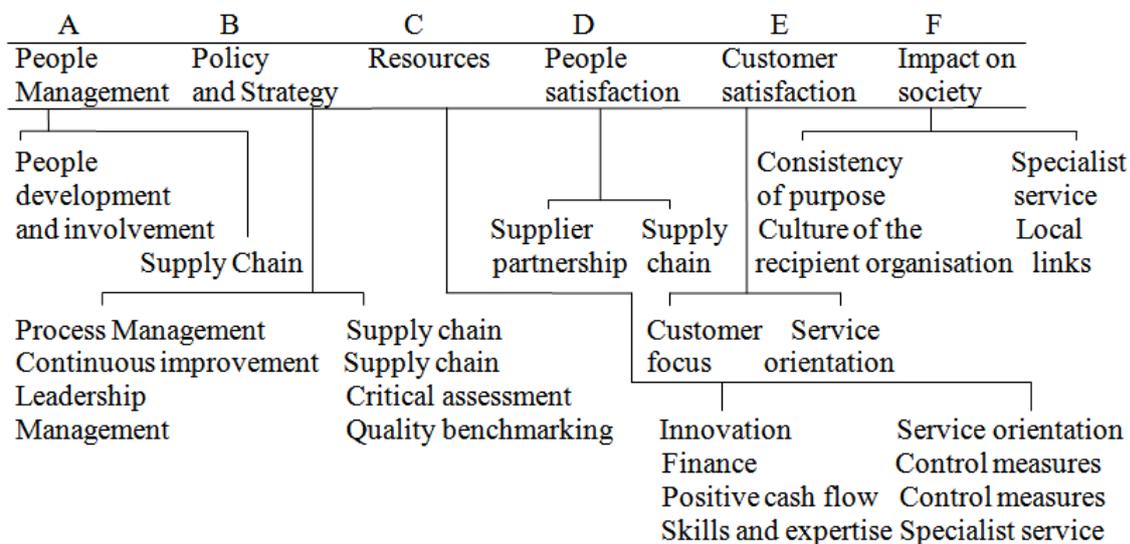


Figure 2. Classifications for Literature and Practitioner based Success Factors

CONCLUSION

By addressing and determining what is meant by a micro, small and medium sized organisation and developing success factors thought to affect an organisation's business viability the foundations have been laid to guide the research to pursue a line of investigation that enabled it to develop a study into ongoing and failed companies.

The literature review identifies the relevance and inter-relationship of SCCOs within Porter's five forces model, the exploration of the factors identified from (a) Hewitt (1997), (b) Arditi *et al.* (2000), (c) Chan *et al.* (2004) and (d) Achanga *et al.* (2006) suspected as impacting on the survival and development of SCCOs. The critical success factors found in the literature review are applicable to (a) total quality management (b) business failure and (c) project management within SMEs and the semi-structured interviews have resolved to disclose the results identified in table 3 which are pertinent to the interviewed companies. The factors from practitioner interviews and literature were then collated to show their inter-relationship with each other under the umbrella classification headings from Hewitt's (1997) Business Excellence Model.

By reviewing the results of the study there is clear evidence to support factors that are shared by the organisations suggesting consistency of unit factors that can be evaluated to determine the ability of a company to fail, continue trading and/or to succeed in business development. This study provides a basis to develop further research with interviewees based in selected case study SCCOs. Such work will enable factors found to form a conceptual framework of success factors critical for SCCOs survival and growth.

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