

# QUALITY ISSUES IN MARKETING CONSTRUCTION RELATED PRODUCTS AND SERVICES IN CHINA

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The economy of China is changing fundamentally and rapidly. This in turn has resulted in a major investment in construction projects. UK suppliers of construction-related products and services recognise that China represents a significant potential market. However, there are widespread reservations about the feasibility of UK suppliers trading profitably in China, since it is perceived as a relatively impenetrable market. This paper reports on the outcomes of a series of interviews, undertaken in China, with influential construction-related decision-makers. The outcome of these interviews is expressed as a series of key proposals, which, it is recommended, should form the basis of cost-effective marketing of UK-supplied construction-related products and services in China.

Keywords: China, marketing, qualitative research, quality, ISO series.

## INTRODUCTION

The UK construction industry continues to operate within an intensely competitive commercial environment (McNamara 1997). A research project into the competitive strategies of major UK construction consultancies, construction companies and construction products manufacturers has confirmed interest in developing and maintaining a strong portfolio of international projects. Senior representatives of practices and companies interviewed from all sectors emphasised that they place an increasing premium on cost-effective marketing of their services and products at an international level.

When asked to identify the one international market offering the greatest potential to suppliers of construction-related products and services, 84% of interviewees identified China. This focus on China confirms the findings of a similar, wider study undertaken by Price Waterhouse (1994). However, few interviewees could then produce any compelling evidence to demonstrate a tangible investment in an enhanced marketing effort directed specifically at the Chinese market. Preece and Male (1997) report that, of the 22 major UK construction companies surveyed as a part of their research, only one company claimed to have increased investment in any marketing activity.

Therefore, it appears that here lies an intriguing challenge for the marketing researcher to square the circle of stated managerial commitment to an increased emphasis on business expansion in China, with an apparent absence of any increased investment in concomitant marketing activity. This may be regarded as representing just one dimension of the complexities inherent in investigating international construction marketing strategies. Perhaps the starting point for the challenge involved in unravelling the complex matrix of variables involved in international marketing is best described by reference to one of the greatest philosophers of the twentieth century: "to

state clearly the difficulties involved is to accomplish perhaps the hardest part of the philosopher's task." (Russell 1976).

Further questioning by the researchers revealed strong reservations on the part of senior management relating to the ability of UK companies to trade profitably in what is perceived as an arcane and reputedly impenetrable market. These attitudes are encouraged by warnings such as that issued in 1984 by Premier Deng Xiaoping, that "foreign companies entering China must adapt to *guoqing* and *guanxi*..." (Yao 1994). This continuing emphasis on *guoqing* - ability to adopt Chinese cultural characteristics, and *guanxi* - developing long-term connections, coupled with stories of the effective monopolies which *chaebol* (cartels) operate, have conspired to create the perception of China as an extremely difficult market for a UK company to enter profitably. This exploratory study was undertaken as a vehicle to establish potentially significant factors involved in multi-national/multi-cultural qualitative research, placed within a commercial perspective.

## AIM AND OBJECTIVES OF THE RESEARCH

The aim of the research project is to identify the presence of key criteria, common to purchase decision-making undertaken in China, relating to the purchase of construction-related products and services.

The objectives of the research project are

- To investigate decision-making criteria in China.
- To identify common key criteria present in the decision-making processes.
- To construct a rank order of significance of key decision-making criteria.
- To provide a foundation for the development of commercially-viable action plans
- To facilitate marketing of UK-sourced construction-related products and services in China.

## RESEARCH METHODOLOGY

Over the past two years, the researchers have been involved in a wide-ranging research brief, which has afforded the opportunity to meet construction-related purchase decision-makers in the Peoples' Republic of China (PRC). It was considered important that the research design should be participative in focus throughout the period of the field research, in order to facilitate data collection within a complex industrial environment.

A review of potential research methodologies was undertaken (Dixon *et al.* 1987, Gill and Johnson 1997 Miller 1991, Nachmias *et al.* 1976). A combination of considerations revolving around the resource-led nature of the project resulted in a decision to adopt semi-structured interviews (Dalton 1959) as the principal research instrument. Pilot studies were undertaken, with the assistance of students from the PRC, who were attending Sheffield Hallam University. The aim of these pilot studies was to ameliorate any cultural bias and linguistic misunderstanding. The ethnographic methodology (Wax 1971) of the research project enabled the development of grounded theory (Glaser and Strauss 1967) via analytic induction. Since the phenomena under investigation have subjective capabilities, emic analyses are appropriate. Explanation of decision-makers' actions are generated inductively from

*a posteriori* perspectives of the decision-makers' actions. The research methodology used an empirically-based ideographic study (Burrell and Morgan 1979) comprising:

- Identifying a caucus of significant construction-related decision-makers in the PRC.
- Undertaking semi-structured recorded interviews with either individual, or small groups of, decision-makers.
- Hermeneutic analysis of interview records.
- Written summaries of the outcomes of the interviews, accompanied by the researchers' theoretical notes (Schatznan and Strauss 1973), submitted to the decision-makers for commentary.

A matrix of factors influenced the selection of decision-makers identified for interview, status, knowledge, accessibility, language, co-operation and, interviewers' resources. Eventually, the interview frame comprised six senior civil servant members of the Ministry of Construction, located in Beijing. Interviews were conducted in the interviewees' places of work, by the researchers. Operating within the context of semi-structured interviews undertaken principally in the medium of the English language, the researchers introduced a schedule of questions, beginning with general groupings and funnelling into open but specific questions. Towards the end of each question group, it was necessary for the researchers to introduce a notional ordinal scale (Kidder and Judd 1986), in an attempt to indicate the relative significance of the phenomena under investigation. Timescales of interviews ranged from twenty-seven minutes to 114 minutes. The use of a tape recorder appeared to cause little anxiety with any of the interview subjects. It appeared that most interviewees forgot about its presence after a few minutes.

Lewin (1946) observes that an holistic understanding of a system is a precondition to understanding any part of that system. In the specific case of the research project, the interviewees all perform the role of a *situated activity system* (Goffinan 1971). Thus ideally it would have been preferable for the researchers to observe the interviewees undertaking relevant decision-making processes. However, this degree of access was impracticable. It is proposed that the characteristics of this research project are unique-neither classical nor action research. Rather, the research was, to coin a phrase, an exercise in *activity of analysis* (Ayer 1971). The authors adopted a proactive role in crystallising interviewees' expressed opinions. It is recognised that, arguably, the grounded theory approach to the research project is compromised by two limitations. First, the responses of the decision-makers to the researcher's written summaries (n=5) has almost certainly not achieved saturation (Fellows and Liu 1997). Second, because of the resource-led nature of the research project, extensive comprehension testing has not been possible. It is proposed that the researchers' backgrounds as UK-based construction professionals with combined industrial experience of approximately one hundred years, together with reasonably extensive overseas practice experience endows the *verstehen* (Hammersley and Atkinson 1983, Giddens 1976) essential for such a sensitive research undertaking. However, it was necessary to be constantly aware of the possible consequences of such a professional profile. Specifically, the possibility of the researcher approaching the subject matter from a *theory-laden* (Burrell and Morgan 1979) perspective.

## RESEARCH OUTCOMES

It became increasingly apparent in the early stages of the research that the single most important finding of this research project could be that, in the perception of the purchase decision-makers interviewed, quality is the most significant of the decisionmaking criteria. It became evident that decision-makers regard quality as the most significant tangible indicator that providers of products and services can fulfil the purchasers' expectations. There is sound *a priori* evidence to indicate that this perspective has some validity (Berry 1995, BliaradwaJ *et al* 1993). Ng (1994) has identified some of the quality-specific inhibitors encountered by investors in China construction developments. In an attempt to address these problems, the stated objective of the highly influential Ministry of Construction is that, by the year 2010, all Class A construction entities shall be internationally tender-qualified enterprises (Ministry of Construction 1996). This is further substantiation of the Ministry's intention to respond to the emphasis on quality initiatives universally adopted by international manufacturing industries, via a range of quality management systems;

- Malcolm Baldrige National Quality Award
- Deming System Prizes (3Nr)
- Motorola Six Sigma
- Good Manufacturing Practices
- MIL - Q - 9858 A
- MIL - Q - 45208 A
- European Quality Award
- ISO 9000 - ISO 9004

This growing emphasis on quality amongst China purchase decision-makers may serve the purposes of UK companies with aspirations to enter the China market. Preece and Male (1997) observe that, in the UK, major construction client organisations and their professional consultants have historically been significantly influenced by an "...emphasis on quality..." within a supplier organisation. Thus there is already a strong quality focus culture amongst UK suppliers of construction-related products and services.

However, for the research to exhibit characteristics of meaningful commercial application, it is necessary to recognise that, from the suppliers' perspective, the dimensions of quality are complex, elusive and difficult to measure, and may often rely on subjective opinion. Ethically, it is necessary therefore to attempt to ameliorate difficulties of this sort, which commercial practitioners encounter when attempting to implement researchers' findings (McKie,1996). The response is the contention that it may be possible for UK suppliers of construction-related products and services to adopt a reductionist philosophy (Descartes 1644) in their international marketing strategies. Not only is this philosophy a central aspect of Cartesian philosophy, but its lineage can be traced through Friedrich Hegel's *Absolute Idea* (McTaggart 1894) and on to the Bose-Einstein model of *Chaos Theory*. Under this model, the matrix of unpredictability and rule order which characterises wide data demonstrating compliance with a core of rules is the embodiment of chaos theory. Thus could quality be the Holy Grail of international marketing of construction-related products and services? Once grasped, could it result in an assurance of success?

This was invariably a turning point in each of the interviews on which the research project is based. The challenge at this point was to establish how conscious each of the interviewees was of the hidden complexity of invisible substrata underlying the term 'quality.' Were the interviewees merely reciting the mantra of quality, based in no small part on subjective perceptions of phenomenalist *qualia* (Ayer, 1976) capable of eluding the most sophisticated of techniques which the researcher can devise? The interviewees themselves came to the rescue in answering this question. Of the six subjects interviewed, 5 identified the ISO 9000 Series as their preferred quality standard for construction-related products and services. Since ISO 9001 incorporates twenty-one elements comprising the core of an ISO 9000 Series compliant quality system, it was possible to probe the interviewees' knowledge and understanding of quality using the following specifics of the ISO 9001 as the vehicle for investigation

- Management responsibility
- Quality system
- Contract review
- Design control
- Document control
- Purchasing
- Purchaser supplied products
- Product identification and traceability
- Process control
- Inspection and testing
  - Inspection, measuring and, test equipment
  - Inspection and test status
  - Control of non-conforming products
  - Corrective action
  - Handling, storage, packaging and, delivery
  - Quality records
- Internal quality audits
- Control of production
- After-sales service
- Training
- Statistical techniques

Arising out of this stage of the interviewing process, it was established that the ISO 9000 Series is commonly perceived as the preferable of the international quality standards available for the following specific reasons, ranked in descending order of significance:

- The purchaser has no responsibility for the design of suppliers' quality assurance processes
- The purchaser can select one of three optional routes to ensure suppliers' compliance with specified standards
- The purchaser has authority in the appointment of the Registrar

Equally importantly, across this caucus of five ISO 9000 Series admirers, a number of reservations were voiced in different ways. Ranked in descending order of significance, these were that the ISO 9000 Series may not constitute a total quality management system, signify proactive quality management, address organisational integrity issues, such as, responsiveness to customers accuracy of estimates; internal sentience, embrace the wider performance aspects of the supplier-organisation, such as, behaviour within the social and ecological environment. It was apparent that this

issue is gaining in international significance, including in China, thus confirming the observations of Fellows and Langford (1993).

## RECOMMENDATIONS FOR ACTION

Popper (1957) has placed scientific research firmly within a framework of social practice. This focus has been developed, in part, to recognise the significance of researchers' perceptions (Garfinkel *et al.* 1989). The outcome has come to be the acceptance that conventionally, research reports may be considered sufficient 'for all practical purposes' (Garfinkel 1984). It is proposed that, in the context of this research project, emphasis should be placed on the term 'practical'. This follows the proposals of Fay (1975) that research should, by definition, inexorably extend to testing outcomes through operational action and its concomitant feedback from practitioners to researchers. It is argued that this is the true, objective verification of research outcomes.

As a strategic imperative, suppliers of construction-related products and services who are involved in marketing in China should address the following key quality issues:

Both technical and marketing personnel must be motivated and empowered to achieve what the author terms *The 3M Strategy*. This comprises a proactive management policy *Merging* both *Manufacturing* (or *Services*) and *Marketing* into a cogent, commercially-competitive strategy.

- Any tendency to separate the issue of quality into a discrete mystique must be monitored and redressed. In particular, this will involve ensuring that all marketing representatives possess a sound understanding of both the philosophy and the implementation of quality in the organisation.
- Management must pursue a proactive strategy of managing purchasers' expectations, to ensure that they are congruent with the providers' understanding of the products and services purchased.
- The strong international focus on the ISO 9000 Series must be embraced by the management of the organisation. Specifically, ISO 9004 should be adopted by suppliers of construction-related products and services. This will ensure the conscious creation and maintenance of a purchaser-orientated culture within the organisation.
- ISO 9004 should be adopted as the basic co-ordinate of the organisation's quality strategy, as tangible evidence to purchasers of consistent delivery. Purchaser satisfaction should then be measured on a continuum, based on key purchase decision-maker product/service attributes.
- Purchasers should be offered the opportunity to express a preference on at least the nationality, if not the identity, of ISO System registrars.
- The organisation should be able to demonstrate a proactive management strategy of technology transfer to purchasers. This may involve a willingness to select key technical and marketing staff, on the basis of their personal qualities, for training in teaching skills.

The outcomes of adopting the above strategy are proposed as Erecting a barrier to market entry for competitors. A competition strategy based on quality and

demonstrable technical superiority rather than price. Relative immunity from involuntary price changes enforced by, for example, sterling exchange rates.

## CONCLUSION

It is interesting to speculate that the construction industry's tenuous acceptance of marketing is related to the insistence which the Euclidian System places upon proven causal relationships (Kant 1934). This could help to explain the hesitancy of an engineering-orientated industry to accept fuzzy and indirect causal relationships of the type on which marketing depends. However, from the decision-maker's perspective, the purchase of construction-related products and services is invariably a complex decision involving a matrix of issues associated with political pressures, time deadlines and substantial cost expenditure. The consequences of decisional error are frequently publicly reported and open to public scrutiny and criticism. Careers may be at stake and, more importantly, 'face'.

The single most important finding of this research project is that, in the perception of the purchase decision-makers interviewed, quality is the most significant of the decision-making criteria. The reassurance of quality ameliorates so many of the purchase decision-maker's uncertainties. From the suppliers' perspectives, it is recognised that the dimensions of quality are complex, elusive and difficult to measure, and may often rely heavily on subjective opinion. But this should prove advantageous to the astute marketing-orientated organisation. There is a reasonable body of anecdotal evidence to indicate that the subjectivity which the purchase decision-maker brings to the judgement of quality is sensitive to the halo effect (Williams 1996). On this basis, it is evident that the supplier of construction-related products and services demonstrating quality at the point of customer interface operations will generate a disproportionate marketing benefit ratio.

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