

Pricing construction services: a research agenda

by

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Abstract

Despite its cultural, social and economic significance and the wide-ranging implications of its pricing practices, construction has been largely ignored by marketing scholars. Conceptualisations of pricing decision making in construction have been sporadically attempted by economists but, so far, have failed to produce a comprehensive theoretical framework. This paper proposes the integration of construction management and economics with the interaction approach to industrial marketing and outlines an exploratory large scale longitudinal empirical research project aimed at developing and testing such a framework.

Keywords

Pricing, construction industry, interaction approach, industrial markets, services

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1. Introduction

The cultural, social and economic significance of the construction industry cannot be overstated (Eriksson, 2008). Buildings are usually the largest single purchase households and businesses ever make whilst for construction firms each project usually constitutes a substantial part of their total workload (Fellows, Langford, Newcombe, & Urry, 1983). The industry is also the single largest employer and contributor to macro-economic indicators (E.C., 2009) as well as the most important supplier to governments globally (Evenett & Hoekman, 2000; Williamson, Wilson, Skitmore, & Runeson, 2004). It follows that the pricing of all construction work, as well as that of every single contract, is of immense economic and social significance for individuals, firms and, sometimes for the economy as well.

Pricing is “the single most important issue of (...) concern to both marketing and economics” (Skouras, Avlonitis, & Indounas, 2005, p. 362), yet, in the case of construction services both disciplines have failed to provide a comprehensive theory (Skitmore & Smyth, 2007). This paper briefly reviews what little we know about the pricing behavior of construction firms and sets an agenda for empirical research aimed at identifying the decision making variables and mechanisms they utilise.

2. Review of the literature on Construction Work Pricing

Pricing is still a generally neglected area in marketing (Avlonitis & Indounas, 2006; Myers, Cavusgil, & Diamantopoulos, 2002) and, especially for services, “elusive” (Hoffman, Turley, & Kelley, 2002, p. 1015). With the exception of a survey of 17 South African firms (Abratt & Pitt, 1985), construction is totally absent from, both single-industry and cross-industry, empirical studies (e.g. Avlonitis & Indounas, 2007; Indounas, 2009; Malleret, 2006; Stottinger, 2001). Books on marketing specifically written for construction firms make no mention of the pricing function and in the academic journals² pricing is either ignored or mentioned as a side-issue (e.g. Fox, 1972; Low & Tan, 1995; Telfer, 1962).

The first attempt at modeling the pricing decision-making process in the construction industry (Abratt & Pitt, 1985) was simply a sequence of recommended tasks (establish responsibility, examine external factors, set objectives, examine internal factors and then set policies, strategy and procedures) embellished with some examples of the options available at each step. There was, however, no attempt at linking the reported survey data to the model. Akintoye and Skitmore (1992) retained the decision-making process structure but dispensed with the unrealistic assumptions of linearity, refined and elaborated the list of options available at each stage and highlighted the importance of the project type and location variables. Most importantly, they posited the procurement system as a variable, which later was acknowledged as the cornerstone of construction work pricing (Skitmore & Smyth, 2007).

None of these models, however, have been empirically tested or applied in practice. This could be a function of methodological issues such as potential informants’ reluctance to talk

² 40 years of Construction Management and Marketing journals and books published since 1980 were reviewed. Of the 21 articles and eight books on marketing construction services only the three discussed in the next paragraph were on pricing.

about pricing (McMillan, 1991; Morris & Fuller, 1989; Skitmore & Smyth, 2007). Another possible reason could be that pricing practice, which has “largely evolved in response to a mixture of common sense and legal requirements”, cannot be reconciled with the rigid assumptions of economic theory (Skitmore & Smyth, 2009, p. 94). The cross-fertilisation of economics and marketing, however, has been acknowledged to be not only feasible but also a potentially fruitful approach (Skitmore & Smyth, 2007, 2009; Skouras, et al., 2005).

3. Setting an Agenda for Modelling Construction Work Pricing

Construction firms operate in a complex web of relationships with a multitude of upstream, parallel and downstream organisations from the primary, secondary and tertiary private and public sectors (Pryke, 2009; Ruddock, 2007). The role, degree of involvement, position, and length of stay of each participating organization in the web vary on a project-by-project basis and over time, thus making the web situational, transitory and dependent on the procurement route (Pryke, 2009; Skitmore & Smyth, 2007, 2009). The nature of the construction ‘product’ and the process by which it is ‘produced’ (as described in Zarkada, 1993) render the traditional firm-level or SBU/product-level approach to studying pricing meaningless. So, it is here proposed that the project is used as the unit of analysis. It has been strongly argued that the separation of purchasing and selling makes sense in “the markets for cornflakes or soap powder [where] consumers are similar” (Ford, 1990, p. 2) but, being an artificial distinction, it hinders the understanding of pricing in industrial markets (Wagner, 1981). Indeed, in a construction web, the purchasing and selling functions are simultaneous, interdependent (Pryke, 2009), often interchangeable and, anyway, totally context-dependent. As such, the interactions and decision making mechanisms of the participants are perfectly explained by the Interaction Approach (IMP Group, 1990).

3.1. Conceptual framework

To focus the model to the particularities of construction work pricing, it is here proposed that the elements of the IMP model are contextualised as follows:

1. *Environment*: Further to (a) market structure, (b) dynamism, (c) internationalisation and (d) the social system³, (e) wider macroeconomic factors and (f) the procurement route (Akintoye & Skitmore, 1992) need to be examined alongside (g) the position in the web (Pryke, 2009) and the (h) legal, (i) professional and (j) industry codes (Zarkada-Fraser, 2000).

2. *Atmosphere*: Apart from (a) power/dependence, (b) closeness and (c) expectations, the (d) professional and (e) industry behavioural norms (Zarkada-Fraser, 2000) are also determinants of the atmosphere of the relationship as could be (f) the purchase experience (Bellizzi & McVey, 1983). Cooperation is here replaced by (g) coopetition (as defined by Eriksson, 2008).

3.1. *Short-term interaction process – Exchange episodes*: Apart from the (a) product/service, (b) information, (c) financial and (d) social exchanges, in construction the atmosphere is also influenced by (e) information/communication flows and (f) contractual relationships outside the dyad (Pryke, 2009). The context of the exchange episodes is also and is dependent on the (g) stage of the construction process (Bellizzi & Walter, 1980).

³ Variables for which no references are provided are the original IA ones (IMP Group, 1990).

3.2. *Long-term interaction process – Relationships*: Depending on the participant's role, the time over which the episodes develop can be long enough for (a) institutionalisation and (b) adaptation to develop regardless of the parties' intentions towards future projects. The long-term perspective, however, is a special issue in construction addressed through (c) partnering (Cova & Allen, 1989; Low, 1997) and (d) the use of collaborative tools (Eriksson, 2008).

4.1. *Interacting parties – Individual*: Further to the individuals' (a) aims and (b) experience it is here proposed that certain (c) affective and (d) cognitive characteristics (Zarkada-Fraser, 2000) with an emphasis on perceptions of 'value' (Monroe, 1990) and the optimal price and technical specifications/intangibles balance (Shaw, Giglierano, & Kallis, 1989) are also considered. Moreover, in pricing (as well as purchasing) one has to consider the persons' (e) position in the organisation (Abratt & Pitt, 1985), (f) relative influence and (g) relationships with people in their own and in other organisations in the web (Brennan, Canning, & McDowell, 2007; Smyth & Fitch, 2009; Zarkada-Fraser, 2000).

4.2. *Interacting parties – Organisation*: The interacting organisations are studied in terms of their (a) technology, (b) structure and (c) strategy to which it is here proposed that (d) cost estimating procedures and (e) pricing objectives (Akintoye & Skitmore, 1992) as well as the situational factors of (f) project desirability, (g) project utility, (h) probability of winning the tender (Zarkada-Fraser, 2000), (i) perceived risk and (j) market orientation (Zarkada-Fraser & Fraser, 1999) are added.

3.2. *Methodological issues*

Surveys are commonly used in pricing research (Abratt & Pitt, 1985). Interviews (Avlonitis & Indounas, 2006), combinations of interviews and attitude scales (Cunningham, 1980) and in-depth case studies (Eriksson, 2008; Smyth & Fitch, 2009; Williamson, et al., 2004) have also been used successfully.

It is here proposed that a combination of unstructured in-depth interviews, attitude scales and content analysis of correspondence is used to produce detailed case studies. Multiple interviews with a large number of, fully committed to the project, key informants in successful and unsuccessful tendering organisations would be needed. These should follow the projects under study through the inception, pre-design/pre-tender, design and tendering, construction and post-construction stages (as detailed in Zarkada, 1993).

4. **Concluding Remarks**

This paper proposes the integration of construction management and economics with the Interaction Approach to industrial marketing into a framework for studying pricing behaviour in the construction industry. It is proposed that the construction project is used as the basis for mapping the web of participants and tracking the contractual/financial and information/communication links between them. The objective would be to analyse dyads of relationships throughout the duration of the project in order to identify how these evolve and influence pricing decisions. Attention needs to be paid to their perceived implications for the project under study as well as for concurrent and subsequent ones. It is thus hoped that a coherent picture of the factors that influence pricing decisions as well as the practises used will be identified and their interdependencies and relative weights will be measured. For these to be achieved, however, a large scale longitudinal project involving an interdisciplinary team of researchers and a variety of carefully selected participating organisations is necessary.

Finally, it is envisaged that such a project would provide insights transferrable to other industries and conceptualisations that will advance not only our understanding of how industries, markets, organisations and people operate but will also assist in the development of procurement and control systems that safeguard societal values and promote welfare.

5. References

- Abratt, R., & Pitt, L. F. (1985). Pricing Practices in Two Industries. *Industrial Marketing Management*, 14(4), 301-306.
- Akintoye, A., & Skitmore, M. (1992). Pricing Approaches in the Construction Industry. *Industrial Marketing Management*, 21(4), 311-318.
- Avlonitis, G. J., & Indounas, K. A. (2006). Pricing practices of service organizations. *Journal of Services Marketing*, 20(5), 346-356.
- Avlonitis, G. J., & Indounas, K. A. (2007). Service pricing: An empirical investigation. *Journal of Retailing & Consumer Services*, 14(1), 83-94.
- Bellizzi, J. A., & McVey, P. (1983). How Valid Is the Buy-Grid Model? *Industrial Marketing Management*, 12(1), 57-62.
- Bellizzi, J. A., & Walter, C. K. (1980). Purchasing Agent's Influence in the Buying Process. *Industrial Marketing Management*, 9(2), 137-141.
- Brennan, R., Canning, L., & McDowell, R. (2007). Price-setting in business-to-business markets. *the Marketing Review*, 7(3), 207-234.
- Cova, B., & Allen, T. (1989). New vistas in competitive bidding strategies. *European Management Journal*, 7(4), 451-456.
- Cunningham, M. T. (1980). International marketing and purchasing of industrial goods - features of a European research project. *European Journal of Marketing*, 14(5/6), 322-339.
- E.C. (2009). *Construction*. Brussels: European Commission - Directorate General for Enterprise and Industry.
- Eriksson, P. E. (2008). Achieving Suitable Competition in Buyer-Supplier Relationships: The Case of AstraZeneca. *Journal of Business To Business Marketing*, 15(4), 425 - 454.
- Evenett, S. J., & Hoekman, B. M. (2000). Government Procurement of Services and Multilateral Disciplines. In P. Sauvé & R. M. Stern (Eds.), *GATS 2000: New Directions in services Trade Liberalization* (pp. 143-164). Washington, DC: Centre for Business and Government - Harvard University and Brookings Institute Press.
- Fellows, R., Langford, D., Newcombe, R., & Urry, S. (1983). *Construction Management in Practice*. Essex: Longman.
- Ford, D. (1990). Introduction: IMP and the interaction approach. In D. Ford (Ed.), *Understanding Business Markets: Interaction, Relationships and Networks* (pp. 1-3). London: Academic Press.
- Fox, H. W. (1972). The case of the pulled plasterboard. *Industrial Marketing Management*, 1(3), 315-322.
- Hoffman, K. D., Turley, L. W., & Kelley, S. W. (2002). Pricing retail services. *Journal of Business Research*, 55(12), 1015-1023.
- IMP Group (1990). An interaction approach. In D. Ford (Ed.), *Understanding Business Markets: Interaction, Relationships and Networks* (pp. 7-26). London: Academic Press.
- Indounas, K. (2009). Successful industrial service pricing. *Journal of Business & Industrial Marketing*, 24(2), 86-97.

- Low, S. P. (1997). The extension of construction partnering for relationship marketing. *Marketing Intelligence & Planning*, 17(3), 155-162.
- Low, S. P., & Tan, M. C. S. (1995). A convergence of Western marketing mix concepts and oriental strategic thinking. *Marketing Intelligence & Planning*, 13(2), 36 - 46.
- Malleret, V. (2006). Value Creation through Service Offers. *European Management Journal*, 24(1), 106-116.
- McMillan, J. (1991). Dango: Japan's price-fixing conspiracies. *Economics and Politics*, 3(3), 201-218.
- Monroe, K. B. (1990). *Pricing: making profitable decisions* (3rd ed.): McGraw-Hill
- Morris, M. H., & Fuller, D. A. (1989). Pricing an industrial service. *Industrial Marketing Management*, 18(2), 139-146.
- Myers, M. B., Cavusgil, S. T., & Diamantopoulos, A. (2002). Antecedents and actions of export pricing strategy: A conceptual framework and research propositions. *European Journal of Marketing*, 36(1/2), 159-188.
- Pryke, S. (2009). Introduction. In S. Pryke (Ed.), *Construction Supply Chain Management: Concepts and Case Studies* (pp. 1-20). Chichester: Wiley-Blackwell.
- Ruddock, L. (2007, 6-7 September 2007). The Economic Value of Construction: Achieving a Better Understanding. Paper presented at the COBRA 2007: The construction and building research conference of the Royal Institution of Chartered Surveyors, Georgia Tech, Atlanta USA.
- Shaw, J., Giglierano, J., & Kallis, J. (1989). Marketing complex technical products: The importance of intangible attributes. *Industrial Marketing Management*, 18(1), 45-53.
- Skitmore, M., & Smyth, H. (2007). Pricing construction work: a marketing viewpoint. *Construction Management & Economics*, 25(6), 619-630.
- Skitmore, M., & Smyth, H. (2009). Marketing and Pricing Strategy. In S. Pryke (Ed.), *Construction Supply Chain Management: Concepts and Case Studies* (pp. 92-112). Chichester: Wiley-Blackwell.
- Skouras, T., Avlonitis, G. J., & Indounas, K. A. (2005). Economics and marketing on pricing: how and why do they differ? *Journal of Product & Brand Management*, 14(6), 362-374.
- Smyth, H., & Fitch, T. (2009). Application of relationship marketing and management: a large contractor case study. *Construction Management and Economics*, 27(4), 399 - 410.
- Stottinger, B. (2001). Strategic Export Pricing: A Long and Winding Road. *Journal of International Marketing*, 9(1), 40-63.
- Telfer, K. R. (1962). How to Measure Sales Against Market Potential in the Construction Industry. *Journal of Marketing*, 26(1), 35-41.
- Wagner, W. B. (1981). Changing industrial buyer-seller pricing concerns. *Industrial Marketing Management*, 10(2), 109-117.
- Williamson, M., Wilson, O., Skitmore, M., & Runeson, G. (2004). Client Abuses of the Competitive Tendering System: Some General Principles and a Case Study. *Journal of Construction Research (JCR)*, 5(1 March), 61 - 73.
- Zarkada-Fraser, A. (2000). A classification of factors influencing participation in collusive tendering agreements. *Journal of Business Ethics*, 23(2), 269-282.
- Zarkada-Fraser, A., & Fraser, C. (1999, December 16-18). Risk analysis of the Russian market by U.K. firms. Paper presented at the Preparing the Manager for the 21st Century, Thessaloniki, Greece.

Zarkada, A. (1993). An Investigation into the Marketing Orientation of UK Construction Contractors into the Russian Market. Unpublished M.Sc. Thesis, UMIST-University of Manchester, Manchester, UK.