CONSTRUCTION ECONOMICS WITHIN CHANGING ECONOMIES: A ROLE FOR RESEARCH

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Abstract

The paper addresses the scope of construction economics and argues that its existing coverage needs to be broadened by focusing research attention on additional areas of economics that have significance for the activities of the construction industry. This can be achieved by giving attention to the theoretical foundations that give rise to the activities of the industry along the current applied orientation for its research. It also argues for a new agenda in construction economics to address the changing dynamics of economics within the construction sector.

Keywords: Construction, economics, research, industry, organisation

Introduction

The construction sector is currently undergoing rapid and fundamental change in response to technological, commercial, environmental, social and legislative pressures. To be competitive, construction organisations, be they large, medium or small, need to generate a constant flow of successful products, projects, procedures and protocols and business orders. Within the current intense climate of competition in the construction industry, generating this constant stream of new and successful production activity is getting more difficult all the time. This is due in part to the sheer number of new products required, their increasing complexity, and the number of variations that clients have come to expect, not to mention the impact and pace of technological development. It is also due to the fact that the nature of economic realities that led to the development of the concepts of business and economic activities for the construction industry are themselves undergoing significant changes. This calls for a re-visit to the fundamentals of what the economic activity and how that can be made to address present realities and potential changes likely to impact on the industry.

The rapid rate of knowledge advancement within the last twenty years has led to the boundaries of various subject disciplines extending beyond their traditional confines. The paper addresses these fundamental issues by taking a look at the scope of construction economics and argues that its existing coverage needs to be broadened by focusing research attention on additional areas of economics that have significance for the activities of the construction industry. This can be achieved by giving attention to the theoretical foundations that give rise to the activities of the industry along the current applied orientation for its research.

Construction economics- its scope and development

Construction economics broadly addresses the use of economic concepts for the operations and activities of the construction industry. It involves the application of the principles and know-how of economics to the business and production processes of the construction industry. This includes economic options of design solutions comprising design economy and cost planning, economic considerations for translating design solutions into physical facilities to meet defined requirements, and methodologies for cost estimating and control. It also involves the economic functioning of firms within the construction sector as well as the relationship of the sector to national and international economies.
Need for a wider scope

The outlined areas of focus for construction economics within the industry’s activities clearly reflect the Adam Smith concept of ‘how scarce resources are allocated among the alternative users’ as in general economics. It can be argued therefore that construction economics is no different from general economics or for that matter, economics for any other sector of production. Ofori (1994) however, has suggested that construction economics developed as an outcome of the unique nature of the construction industry, which is characterised by large and expensive physical products, a complex industry structure and production processes, and a distinctive method of price determination. This underlying character of construction means that some of the generic principles from mainstream economics need to be fine-tuned to ensure their applicability to the industry’s context. Equally, it calls for an appreciation of the underlying theories that drive the economic activities of the industry and its associated processes aside from the general principles of economics. In practice however, the development of construction economics has largely been influenced by its relationship to the industry and professional institutions associated with quantity surveying, commercial management, engineering economics, development economics, and investment and finance. The rationale for this strong influence is that construction economics is an applied subject and as a consequence its research focuses on the applied to the exclusion of the broader understanding of the theories that characterise construction activities. Commenting on this Betts and Wood-Harper (1994) suggested that the subject area appears to be developing in an evolutionary way based on the culture of industry practices, and largely unaffected by mainstream economic concepts and theories. Edum-Fotwe (1997) commented that this lack of strong foundation within mainstream economics and management for construction economics might be accounted for by the fact that construction has always seen itself as part of engineering. As such its principles of economy are predominantly based on and influenced by engineering concepts. Therefore, in order that such theories from mainstream economics can have a place in construction economics, research effort needs to be devoted to the demonstration of the applicability of these theories to the construction context.

Why the wider scope

According to Bon (1989) construction economics has focused on forecasting the economic consequences of a building decision on the basis of ever more extensive historical data about individual buildings and their components. However, the key task of building economics is to assist the decision-makers concerned with building economy in their day-to-day operations involving the entire real property holdings at their disposal. Bon (1989) goes on to argue that the problem with the old focus of the field is twofold. On the one hand, economic history of building activity is an important area of study in its own right, but the practical significance of building economics hinges on the field's sensitivity to the anticipation of continual economic change facing decision makers. This necessitates a viewpoint much broader than a prediction of the potential impact of the decisions relating to a single project. In addition Bon (1989) describes the record for the use of economic forecasting within the construction sector as not convincing over the extended periods of time associated with the building life cycle. To address this apparent shortcoming of construction economics, Bon (1989) advocates that the focus of the subject should be shift away from investment decisions to decisions concerning the use of capital. More significant of his arguments was the view that such an active orientation on capital decisions for the problems of construction economy would
require investigations of the theoretical underpinnings for economic activities within construction.

Modern economies are no longer based on the simplistic concept of mass production and consumption of goods and services. There is ample evidence to suggest that in very many instances, producing more in the current changing environment, however efficiently, is not necessarily better. While lessons on this can be readily drawn from the IT sector, some vivid analysis can be established with the housing sector. This is perhaps epitomised by the current trend toward down-sizing and re-positioning to focus on core business for several major construction organisations to increase productivity in the short term. However, downsized organisations often have to face a future that suffers from low financial performance if their first and repeat business is dependent on labour-intensive operations, which is the case for construction. Its operations and processes are dominated by a high labour content. The picture here is that the sector is changing, and therefore the economics concepts and theories need not only to respond to such changes, but also understand the dynamics of the new and evolving form of economy. This paper argues that is not only economies that is changing. Economic theory is itself responding to the challenge of rapidly moving events. Construction economics therefore ought to take a look at new approaches as well as the established orthodoxy, and systematically build up an understanding of economic theorizing so as to offer opportunities and ideas to practitioners for application to real problems.

**Role for research**

Clearly, there is a role for research in engendering the new agenda of a broader scope for the subject and responding to changing economics advocated for in the previous sections. Within the CIB, the work of the various task groups and working commissions already reflect some of the aspects of a broadened scope for the subject. These need to be integrated to give construction economics a more defined role so that areas of economics not so represented can be addressed. Research in construction economics should be able to reflect adequately, the sum total of economic activity within the construction sector. Also such a broadened scope could give attention to the new and emerging economics required for the sector, and its relationship to national and international economies.

**References**


