MANAGEMENT OF VARIATIONS IN CONSTRUCTION CONTRACTS

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Although it is best practice if all projects are fully planned, changes in circumstances demand that flexibility must be maintained. Measures should ideally be those that can function in either expected or changed conditions, striking a balance between precision and flexibility. Thus specific clauses, enabling changes to be made to the specification, are inserted in contracts. However, the advantage of this contractual flexibility has been largely overshadowed by reports that variations are the cause *for* delays, disputes and conflict in the construction process. Some of the arguments' centre upon the amount of compensation due, whether time or money. If these problems are to be reduced, then contracts should be drafted to reflect the needs of the parties in changing circumstances. This is made more pertinent by the nature of construction; both parties will certainly be locked in a relationship for a long period. Given bounded rationality and opportunism, it is more advantageous to provide the parties with the opportunity to negotiate over aspects of the contract that are inconsistent with their own (changed) requirements. The purpose of this research work is to determine the precise areas of contention over variations and to improve contract clauses by specifying a more flexible but enforceable contract drafting policy.

Keywords: Construction Contracts, disputes, variations.

INTRODUCTION

The design of building projects should, in reality, be dictated by the clients' response to the environment. Although it is best practice if all projects are fully planned, change in circumstances (in the client's operating environment) demands that flexibility must be maintained. Failure to respond to environmental forces can affect the suitability of the output the project hopes to produce (Hughes 1989). Project measures, such as plans, processes, organisations, contracts and information systems, should be ideally those that can function either in expected conditions or to changed conditions (Gilbreath 1986). These measures should be designed to strike a balance between the need to be precise and firm while permitting looseness.

In the construction industry, projects are usually procured using standard forms of contract. Although the roots of standard forms in modem commercial practices can be traced back to contract law, there are differences between building and engineering contracts and the classical paradigm of a single exchange transaction. Some building and engineering works are conducted over a long time; they are not instantaneous one-off contracts. This creates problems as it is not possible to foresee or calculate adequately the impact of external forces on the construction process. Consequently the suitability of the output is also affected. In the end, a sensible bargain may turn out to be onerous because of changed conditions (Bell 1989: 195-220).

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Adjustments are therefore necessary to reflect the changing circumstances that impinge the construction process. However, the contractor is not obliged to accede to any request for change. Any departure from the work for which a contractor has agreed to do is subject to a new and separate agreement (Powell-Smith and Sims 1983, Murdoch and Hughes 1992). Therefore, specific provisions are necessary to confer on the employer the right to vary the work and to avoid fresh negotiations over the terms of the contract every time a change is contemplated.

The standard forms of contract produced by the institutions in the construction industry usually incorporate provisions to vary the work. Colledge (1992: 229-249) stressed that it is more prudent to insert provisions to be followed in the future as it is impossible to complete all aspects of the contract before commencement. An example is Clause 13 of JCT 80. Within the context of a construction contract, the term "variation" is used to describe these changes. It means an alteration, whether by extra or omission, to the physical work content specified in the contract but which the contractor is required to perform (Dorter 1991). These provisions not only contain detailed arrangements how the changes are to be made but also who will be vested the power to decide the changes (Atiyah 1995). Parties are then able to adjust to future contingencies to secure the performance and continuation of the contract (de Lamberterie 1989: 220-241). It would be reasonable to assume that variation clauses are designed for these purposes.

PROBLEM

However, the advantage of this contractual flexibility has been largely overshadowed by reports that poor performance of the industry can be linked, either directly or indirectly, to variations. Variations have been described as the cause for disputes and/or conflicts (Gardiner and Simmons 1992 & 1995, Wood 1975) partly because of delays (Bromilow 1970, NEDO 1983) and disruption (Banwell 1964, Ireland 1985), subsequently leading to cost overruns. The falling rate of productivity has also been attributed to variations (Latham 1994, Moselhi et al. 1990). Naturally, the response has been to devise strategies to prevent or limit occurrence of variations. These strategies are implemented early on the project, therefore reducing or even eliminating any impact from variation on the construction process. A sample of these strategies - has recently been highlighted by Chan and Yeong (1995).

Although useful, these strategies fail to address an important issue, that is, that variations do occur (Bromilow 1970). This inevitability means that there is bound to be a change to the specification of the work even for a well-planned project. The reality of many commercial schemes is that the client dictates the pace of design by responding to external pressures (Latham 1994). Coupled with the rapidity of changes in the environment (Toffier 1970), there are limitations as to the extent a design can be considered complete. As a consequence, the construction process should also adapt and respond appropriately to these pressures, thus reaping the benefits of a contractual flexibility to change whatever has been originally agreed. The client will still have other options whenever a change in circumstances, from financiers to potential buyers and tenants, renders the original design unsuitable.

Although variation clauses provide a legally certain way of coping with uncertainty, choice between the type of clauses will depend upon whether the causes of uncertainty are within the control of the parties (Bell 1989). Bell (1989) argues that when certain problems are recurrent, the parties will normally provide such mechanism for -

adjustment in the contract. However, the extent to which variations are effectively managed due to the present adjustment mechanism is still unknown.

There are still difficulties in providing a contractual framework that is binding but with a degree of flexibility and latitude about its terms (Macneil 1981). As many building projects are, by their nature, long-term activities, parties to the contract will be locked in a relationship for a long time. Any planning and specificity of the obligations become more difficult (Bell 1989), given the limited information (March. 1988) and bounded rationality (Williamson 1981) of the parties. The effect of a particular change on the parties is not similar. Without a chance to re-assess the new risks that the varied work may bring, parties may even shy or default on their obligations. Dispute inevitably follows.

Therefore, parties should be given the opportunity to negotiate over aspects of the contract that are incompatible, either with their own (changed) requirements or due to circumstances that are unreasonable to foresee. Reported disputes over variations indicate that many of the arguments' centres upon the terms concerning the amount of compensation due, whether time or money. It follows that such disputes can be reduced if improvements are made to these terms.

Consequently, other related problems, such as opportunism due to 'small numbers situation' (Williamson 1979) could be eliminated. Winch (1986 & 1989) suggested that opportunistic behaviour is greatly amplified when there is a change in the project's specification and the subsequent pricing of extra work. In the end, the burden of having to bear the unnecessary higher cost is on the client. Loosemore (1996) argues that there is too much reliance on the contractor's goodwill especially during financial uncertainty. Loosemore (1996) contended that if the level of uncertainty is reduced, it also reduces the opportunity for unfair play thereby reducing the level of tension.

DATA COLLECTION

In order to determine the areas of contention, data from building disputes and/or conflicts resolved by litigation was used, specifically those purported to arise from variations. As most building disputes are usually conducted privately, either by arbitration or other alternative dispute resolution, the obvious choice is to collect the preliminary data using cases that were reported, for example, through law reports.

Moran (1948) stated that a law report is "... a production of an adequate record of a judicial decision on a point of law, in a case heard in open court, for the subsequent citation as a precedent. A law report is a report of law and not of fact. Only the issues and the facts relevant to the point of law should be recorded, since every judgement is founded on a decision of fact". As the purpose of a law report is the exposition of the law, it should show the parties, nature of pleadings, essential facts, arguments of counsel, decision and the grounds of judgement (Law Reporting Committee 1940). This means that the information contained in a reported case may provide clues not only to the source of dispute but also causes or events that precipitate the dispute.

There are various reports, covering all courts and subjects, however the preferred series of citation in court are those produced by the Incorporated Council of Law Reporting or The Law Reports. There are four series; Appeal Cases, Chancery, Queen's Bench and Family and all cases are checked by the judges before publication (Tunkel 1992). In addition, there are other general series of reports that bring together cases on a particular subject. These specialised reports usually duplicate those found

in the Law Reports. They are convenient to those engaged in a specialised practice (Banks 1985, Moys et al. 1993) as the coverage is more extensive than other reports (Stott 1993). For the construction industry, the relevant series of reports are the Building Law Reports and Construction Law Reports.

As building and construction cases often raise complicated issues of fact, using several alternative claims and defences (Baatz et al. 1997), the use of an index within the law reports is useful to look up cases on a particular subject matter. Specific keywords (construction contracts, building contracts, variations) were generated and used to look up the index and extract the relevant cases involving variations, either being one of the principal points of the particular case or as one of the issues brought up during the proceedings. Other cases may be cited by the counsels in support of their claims or defences. These cases are however disregarded in the data collection.

Altogether, 29 cases were extracted and they provide the sample of building disputes involving variations.

ANALYSIS OF DATA

The most important parts of the report are the facts, summary of counsel's arguments and the points or arguments the court took or averted from in coming to a decision (Banks 1985, Tunkel 1992). Accordingly, the data was categorised (Table 1 to 4) into the following: relief sought, source of dispute, basis of claim and defence.

'Relief sought' is what the claimant wants and what the law allows. Although the claim must be legally recognised, there are instances when construction industry claims are categorised without regard to the legal basis (Davenport 1995). The 'source of dispute' refers to the events that precipitates or triggers the dispute. 'Basis of claim' refers to the points that counsel used including the legal basis on which the claim is founded or arguments for the claim to succeed while 'defence' means arguments by counsel to defeat the claim.

The categorisations are as follows:

Table 1 : Relief sought

	Frequency
Payment for alleged variations	20
Extension of time	9
Payment for loss and expense caused by delay, disruption and prolongation of work	5
Breach of implied or express terms of contract	3
Tort (negligence, misrepresentation)	3
Liquidated and ascertained damages	1
Payment for overheads and profits	1
Others	1
Total	44

Table 2 : Source of dispute

	Frequency
Express terms of the contract	8
Instructions	8
Rates	5
Implied terms of the contract	4
Difference in quantities	3
Working conditions	3
Change in the agreement	2
Liability for design and specification of work	2
Sequence of work	2
Completed work not functioning	1
Entitlement to be paid	1
Giving work to others	1
Prolongation, disruption and delays	1
Suspension of work	1
Work during period of culpable delay	1
Total	43

Table 3 : Basis of claim

	Frequency
Expressly provided for in the contract	11
Letter and/or drawing was an instruction to vary the work	7
Implied terms as to the purpose of the contract	3
Implied term of nature of working conditions	2
Liability of designer	2
Obligations was unreasonable	2
Express terms discharged during period of culpable delay	1
Implied terms to accord relief claimed	1
No contractual right to suspend the work	1
Obligation to issue instructions	1
Right to perform the work	1
Right to be paid	1
Total	33

Table 4 : Defence

	Frequency
Not within the meaning or scope of the clauses in question	9
Expressly provided for in the contract	7
Letter and/or drawing was not an instruction to vary the work	6
Liability of designer	4
Nature of work to be ascertained from the type of contract	3
Not conforming to contract provisions	3
Separate agreement	2
Liability to pay for work	1
Total	35

As some of the cases involved more than one issue to be resolved by the courts, consequently the total frequency of each of the categories is not similar.

DISCUSSION OF FINDINGS

There were higher frequencies for claims for payment of work and extensions of time occasioned by the execution of the alleged varied work. In certain circumstances, loss of profit, loss and expense and damages are also included within the claims. The major events that trigger the disputes were terms of the contract (express or implied), the effects of instructions and disputes over the rates. Although there were various points that counsel took when arguing for or against the claim, two bases and/or defence of claims are different from the rest: 1. The claim or relief sought is expressly provided for in the contract, and 2. The claim or relief sought is not within the meaning of the clause in question or outside the original agreement.

These findings suggest that there are areas over variation clauses that needs to be clarified. Presumably, some of the disputes could have been avoided if both parties had similar conclusive notions of the scope and limitations of the contract. The obvious differences in their interpretations suggest that it may be fruitful to improve the terms, especially on time and money related issues. The proposal by Latham (1994) to pre- price any variation is lauded although it is doubtful whether these prices are always applicable at a future time of the contract. Any pricing should be reviewed against the mitigating factors that surround both parties, which are susceptible to change at a given point of the contract. It is against this background that the terms of the contract should be reviewed.

It is also apparent that these differences are also due to ambiguities in the terms of the contract. Twenty-one of the cases reviewed were concerned about questions of law specifically set aside for the courts to decide before an arbitration award becomes final. The majority of these questions involved the court's assistance in clarifying the terms of the contract and it's intended effect.

CONCLUSION

Although a change in circumstances may permit the client unilaterally to order variations, a reciprocal gesture should also be afforded to the contractor to negotiate terms of the contract that may be unsuitable to carry out the varied work. The contractor is obliged to carry out instructions, committing extra resources, without guarantee that there will be adequate compensation for the effort. The vagueness of some of the terms is not of much help in providing guidance and direction as to the

intended effect of the contract. These uncertainties generate tension, consequently leading to disputes and conflicts.

These disputes and conflicts can be reduced if there is an opportunity to change the terms of the contract that truly reflect the needs of the parties in changing circumstances. It has been revealed that the main areas of contention are related to time and money issues. If the terms governing these areas are also subject to revision, there is a greater likelihood that many of the arguments over variations could be reduced, thereby increasing the effectiveness of managing changed circumstances. Both parties will be able to reap the benefits of the contractual flexibility to change, rather than one party profiting from a situation unforeseeable when the contract was signed.

Although the sample revealed the type and nature of disputes over variations, not all cases are reported. Routine case that raises no significant point of law is likely to be omitted (Banks 1985). Law reports are also slow to arrive in the library and many may not be edited into full-strength law reports (Tunkel 1992). Due to these limitations, more enquiries are necessary, especially relating to disputes that are not reported or to disputes that were privately adjudicated.

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