

THE MANAGEMENT OF CLIENTS' STRATEGIC OBJECTIVES USING THE JBCC PRINCIPAL BUILDING AGREEMENT: A CASE STUDY

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Abstract

Meeting the strategic objectives of construction clients is paramount in construction procurement for the project to be regarded as successful by the client. It is contended that the choice of contractual arrangement can act as a barrier to achieving these objectives. Through an analysis of the South African *JBCC Principal Building Agreement*, the authors explore how contractual arrangements can be a limitation to achieving the client's construction strategic objectives. The research methodology adopted for the research comprises a desktop analysis of the *JBCC Principal Building Agreement* together with the analysis of a single case study to explore how the *JBCC Principal Building Agreement* addresses the client's strategic objectives in theory and in practice. The findings indicate that the *Agreement* neither makes provision to deal with the client's strategic objectives nor are they met by its philosophy, structure, or parameters. It is concluded that construction clients who use the *Agreement* or its equivalent for the benefit of its convenience and familiarity should consider its adequacy to manage strategic objectives within the wider sense of the investment and business case of the construction project.

Keywords: JBCC, strategic objectives, business case, construction client, contractual arrangement, South Africa.

Abstrak

Konstruksieprojekte word deur kliënte as suksesvol beskou slegs wanneer hulle strategiese doelwitte bereik is. Daar word beweer dat die keuse van 'n bepaalde kontraktuele ooreenkoms die bereiking van sodanige doelwitte moontlik kan belemmer. Ontleding van die *South African JBCC Principal Building Agreement* deur die outeurs het hulle ondersoek na die wyse waarop kontraktuele reëlings moontlik die bereiking van die kliënt se konstruksieverwante strategiese doelwitte mag beperk, ondersteun. Die navorsingsmetodiek ten opsigte van hierdie navorsing toegepas, behels 'n tekstuele ontleding van die *JBCC* en een gevallestudie om die wyse waarop die *JBCC Principal Building Agreement* teoreties en prakties die kliënt se strategiese doelwitte aanspreek, te ondersoek. Die bevindinge dui aan dat die *Agreement* nóg voorsiening maak om die kliënt se strategiese doelwitte te bevredig nóg voldoen die filosofie, struktuur of parameters van hierdie ooreenkoms aan sodanige doelwitte nie. Die gevolgtrekking is dat kliënte wat van hierdie of 'n soortgelyke ooreenkoms gemaksonthalwe of omrede die bekendheid daarvan gebruikmaak, behoort die toereikendheid daarvan al dan nie om strategiese doelwitte rakende belegging en bedryfsaspekte in die breë sin van die konstruksieprojek te bestuur, te oorweeg.

Sleutelwoorde: JBCC, strategiese doelwitte, bedryfsaspekte, konstruksie kliënt, kontraktuele reëling, Suid-Afrika.

1. Introduction

Construction works are procured for strategic reasons: houses, for example, are built to provide shelter from the elements, factories are built to accommodate the manufacturing processes of industry, public amenities are built to provide community services, and commercial developments are undertaken by property developers for sale or investment. The strategic objectives for construction, therefore, can be broadly defined in terms of the needs of the construction client in relation to his or her ultimate use of it upon completion. Classification of the strategic objectives of construction in this manner, however, does not complete the set of strategic objectives for construction. In recent years, for example, the socio-economic context of construction has given rise to a second order of objectives for strategic ends, which have come to be applied to each stage of the development cycle of the built environment, namely:

- urban planning and development;
- project design;
- the manufacture of building materials and products;
- building construction and processes;
- maintenance and management of the built environment; and
- deconstruction, and reinstatement of the environment, after the construction works have served their purpose (Ofori, 1998; Hill *et al.*, 2002).

Strategic objectives aligned with the development cycle of the built environment are premised upon the argument that construction works (i.e. infrastructure and buildings) should benefit society not only by their existence but also by the economic activity generated in the process of delivery (Drewer, 1975; Ofori, 1980; Edmunds and Miles, 1984; Wells, 1986; Rwelamila and Meyer, 1996).

The strong functionalist approach of construction, therefore, which in the past focussed more on project delivery, and which was measured by hard criteria like time, cost, quality and utility, has thus undergone a shift to create a balance by a more interpretive approach designed to:

- address poverty and inequity based on the redistribution of opportunity;
- substitute natural to human made capital;
- ensure the carrying capacity of supporting eco-systems; and
- maintain the performance, quality and service life of construction works (IUCN, 1980; Solow, 1993; Gladwin *et al.*, 1995, all cited by Hill and Bowen, 1997).

These objectives relate specifically to the pillars of sustainable construction identified respectively as the social 'pillar', the economic 'pillar', the biophysical 'pillar', and the technical 'pillar' of sustainable development (Hill and Bowen, 1997).

In view of the above, the strategic nature of construction raises two pertinent issues:

- the manner in which construction works are procured; and
- the measures applied to determine project success.

These activities are linked.

The purpose of this paper is to examine the extent to which the *JBCC Principal Building Agreement* facilitates the management (and hence attainment) of clients' strategic objectives.

2. Research methodology

A review of the literature shows that the strategic objectives of construction are well understood in procurement theory (Hibberd, 1991; Green 1994; Rwelamila and Hall, 1994; Jennings and Kenley, 1996; Lenard and Moshini, 1998; Rowlinson and McDermott, 1999), and procurement systems (Franks, 1984; Sharif and Morledge, 1994; Masterman, 1997; Hamilton, 2001). A large body of literature also exists to assist the procurement specialist in advising the construction client on which procurement system is best suited to the client's individual need (e.g. Love and Skitmore, 1996; Ofori, 1996; Masterman, 1997; Kumaraswamy and Dissanayaka, 1998; Murray and Langford, 1998). The advice, however, appears useful only up to a point. For example, with the exception of Cox (1996, 1997), Cox and Thompson (1998), and Cox and Townsend (1998), nothing could be found on the best choice of supply relationship to be concluded between the construction client and the contractor, given the asset specificity of the contractor's service (i.e. residual, complementary or strategic) to the construction client in the realization of its objectives related the investment/business case; nor was there any guidance on how to establish the necessary links between the supply relationship and the form of contract consistent with such objectives; and nor was there any direction on the choice of performance criteria and measures needed in the contract to manage and control supply chain resources activities sufficient to achieve objectives critical to the success of the project.

The review of the literature was undertaken thematically within the context of the application of theory to the realization of strategic objectives in relation to a 'separated' and 'coordinated' (i.e. the traditional or conventional) system of procurement. This was done in order to narrow the area of investigation. Using a framework derived from the literature, the study proceeded with a desk-top analysis of the *JBCC Principal Building Agreement* (2005) to understand the characteristics of the *Agreement* in terms of:

- the premise of its supply relationship;
- the division of roles and responsibilities between the parties;
- the structure of the control system and its inherent strengths and weaknesses;
- performance criteria and measures;
- the distribution of risk; and
- the reimbursement mechanism.

The desk-top analysis was followed by a field study of a single building project to determine how the *Agreement* directs practice for the realisation of strategic objectives related to the investment/business case of a particular project.

The research was not hypothesis driven as there was no intention to prove or disprove any particular theories about strategy or the management and control of

strategic objectives in the contractual arrangements of construction projects. It was more concerned with seeking to augment a theory of practice for the management and control of strategic objectives within the context of a 'separate and coordinated' (i.e. traditional or conventional) procurement system using the particular contractual arrangement of the *JBCC Principal Building Agreement* (2005). The methodology adopted, therefore, was evaluation research with a strong descriptive focus.

Internal validity was achieved by explanation-building from inferences drawn from the data collected, making every effort to ensure that evidence was convergent and that all rival explanations and possibilities were adequately considered (Yin, 1994). Care was also taken to ensure a proper fit between the concepts (issues) involved and their measures (Edwards, 2001, citing Bryman, 1988). External validity in the traditional sense (i.e. the capacity to generalise findings beyond the context of the case itself to a larger universe of cases based on a 'statistical' generalisation) was not possible to achieve as only one case study was undertaken. The study, however, did focus on generalising the particular set of results to the broader theory of procurement based on a process of 'analytical' generalisation (Yin, 1994). The study, therefore, may be defined as 'instrumental' case study research (Edwards, 2003), as the case was undertaken to facilitate an understanding of the management and control of the processes affecting the outcome of strategic objectives in the contractual arrangements of construction projects procured under a 'separated and coordinated' (i.e. traditional or conventional) system using a particular contract form.

The research questions posed were thus:

- How are the strategic objectives of construction clients met and controlled in the *JBCC Principal Building Agreement*?; and
- How do the performance criteria of the *JBCC Principal Building Agreement* contribute to the measurement of strategic objectives at project completion?

Operational links were intrinsic to both questions and it was this issue that constituted the rationale for choosing a case study design.

3. Desk-top analysis of the JBCC Principal Building Agreement

An analysis of the *JBCC Principal Building Agreement* shows that it is intended for use only to procure the construction works. The nature of the service to be rendered by the contractor is thus defined merely as 'the execution of the works' (Cl. 2.1). The act of 'execution' of the works in the *Agreement* is defined by two events: 'commencement' (Cl. 15.3) and 'completion' (Clause 15.3.2; 15.3.3 and 15.3.4), which is required to be carried out "with due skill, diligence, regularity and expedition" (Cl. 15.3) to the building standards as may be stipulated by the principal agent from time to time (Cl. 24.1.1). This description demarcates not only the extent of the service to be rendered by the contractor, but also the limit of the contractor's focus for management and control, and the measures it will no doubt apply to evaluate project success.

3.1 Procurement system

The limitation of the contractor's service to the execution of the works only implies that the *Agreement* is premised on the 'separate and coordinated' (i.e. traditional/conventional) procurement system, and all the assumptions of procurement strategy that its use too would necessarily imply (Masterman, 1997).

Where the construction client's strategic objectives cannot be met by the use of this particular procurement system, the *Agreement* would itself therefore be an immediate barrier from the outset. This comment is made all the more relevant by the fact of the wide use of the JBCC Principal Building Agreement as an industry standard in South Africa without due consideration of the investment / business case drivers that may warrant the use of an alternative procurement system and thus a more appropriate form of contract. Research in South Africa indicates that little attempt is made by the professional team to match procurement system characteristics with client objectives. Indeed, a significant proportion of professional advisors admit to a less than fulsome understanding of the characteristics of these alternative systems (Bowen *et al.*, 1999).

3.2 Contractual control mechanisms

3.2.1 Division of roles and responsibilities

a) The Employer

Under the *JBCC Principal Building Agreement* (2005), the employer has extremely limited powers. Having entered into contract by mutual agreement with the contractor, the employer has the power to:

- i. appoint the principal agent (Cl.5.1)
- ii. appoint agents as stated in the schedule, and may appoint further agents with the contractor being informed thereof (Cl.5.2);
- iii. recover penalties for non-completion (Cl.30.1);
- iv. cancel the contract in the event of the contractor's default (Cl. 36.1) or by reason of destruction to the works, or the destruction of an existing building to which the works is intended to apply, howsoever caused (Cl. 37.1); and
- v. recover damages, in appropriate circumstances (Cl. 36.5.8).

In respect of the first item listed above, it should be noted that appointment of the principal agent and other agents stated in the Schedule (Cl. 5.1.1; 5.2 or 5.4) is a material term of contract. The employer, therefore, cannot act directly on his or her own behalf in the management of the contract. This issue often proves problematic in practice.

Failure to effect the appointments of the principal agent or other agents stated in the schedule, or to replace them should they be unable to act or cease to be agents, entitles the contractor to cancel the contract (Cl. 38.1.1). The remedy, however, may be too drastic, except, for example, where the contractor believes that non-appointment will cause extreme prejudice. It is submitted, therefore, that a more appropriate remedy, if required, should be the suspension of the works by the contractor until the employer has fulfilled his or her obligations in this regard. No such relief, however, is available to the contractor in terms of the *Agreement*.

Further roles of the employer not addressed by the *Agreement*, but which are required by the South African Constitution and other statutory legislation, include the employer's role in:

- The protection of the environment (see the Constitution of the Republic of South Africa, Act No.108 of 1996: Sect. 24) (Republic of South Africa, 1996); and
- Issues of occupational health and safety under the Occupational Health and Safety Act (No. 85 of 1993) (Republic of South Africa, 1993) to be performed in terms of the Regulations published in the Government Gazette (No. 25207 of 2003) (Department of Labour, 2003).

The environmental concerns of development during the planning and design stages of a construction project are addressed in terms of the Regulations published in the South African Government Gazette (No. 18261 of 1997) (Department of Environmental Affairs and Tourism, 1997), as derived from the Environment Conservation Act (No. 73 of 1989) (Republic of South Africa, 1989). Implementation of Environment Management Systems (EMS) for the management and control of construction activities are not yet mandatory in South Africa but guidance does exist in terms of the *Code of Practice for Environmental Management Systems* published by the South African Bureau of Standards (SABS, 1993) and the international specification for EMS developed by the International Organization for Standardization (ISO, 1995).

b) The principal agent

The authority of the principal agent under the *Agreement* does not follow the common law rules of agency in South Africa in all respects. An agent under South African law is normally required to carry out his or her mandate in accordance with the full instruction, or under the direct commission, of his/her employer (Hosten *et al.*, 1983). The principal agent, in terms of the *Agreement*, however, enjoys wide discretionary powers and may, in accordance with this discretion, exercise his or her judgement independently. Moreover, interference by the employer in the independent exercise of the agent's duties may found a claim by the contractor against the employer for damages, or even entitle the contractor to cancel the contract if the interference causes the contractor prejudice (Cl. 38.1.7#). (**Note:** The principal agent enjoys no such discretion in terms of this clause under contracts concluded by the State, and the contractor's rights in this regard too fall away).

The effect of this arrangement means that the principal agent cannot be held accountable for his or her actions as an agent entirely on the strength of his or her mandate. The employer therefore can seldom, if ever, bring a successful action in contract but can only seek a remedy on the basis of *delict* (Hosten *et al.*, 1983). This is because it is not inconceivable that the terms of the principal agent's mandate may be such as to give the employer a contractual remedy against him or her on particular facts without contravening the terms of the *Agreement*. This arrangement greatly weakens the control the employer may exercise, *inter alia*, over the management of strategic objectives.

Other than the powers retained by the employer as listed above under item 3.2.1.a), the employer surrenders all of his/her other powers to the principal agent, who is 'the only person who shall have the authority to bind the employer, except where agents issue contract instructions under delegated authority' (Cl. 5.3). For example, it is only the principal agent who may:

- i. Issue contract instructions (Cl. 17.1);
- ii. Permit work to be executed and installed by others for whom the contractor is not responsible (Cl. 22.1);
- iii. Give the contractor interpretations and guidance on the standard and state of the completion of the works (Cl. 24.1);
- iv. Issue certificates of practical completion (Cl. 24.3.1), works completion (Cl. 25.2.1), and final completion (Cl. 26.3.1#);
Note: A certificate of final completion is deemed conclusive evidence as to the sufficiency of the works and that the contractor's obligations under the *Agreement* have been met, other than for latent defects (Cl. 26.6)
- v. Extend the construction period in certain circumstances (Cl. 29.7);
- vi. Determine the amounts of payments to be made under an interim (Cl. 31.1) or final payment certificate (Cl. 34.5);
- vii. Determine adjustments to the contract value (Cl. 32.1);
- viii. Calculate the monies recoverable by the employer for penalties (Cl. 33.1.1); default interest (Cl. 33.1.2), and expense and loss in terms of Clause 33.2 (Cl. 33.1.3);
- ix. Settle disagreements and disputes between the employer or his/her agents on the one hand and the contractor on the other that arise out of the *Agreement* (Cl. 40.1), save those that are referred to adjudication (Cl. 40.2.1#); mediation (Cl. 40.7) or arbitration (Cl. 40.5#);
- x. Approve subcontract work (Cl. 24.3.1; 25.2.1 and 26.2.1 of the JBCC Nominated / Selected Subcontract Agreement (2005));
- xi. Determine adjustments to the subcontract value (Cl. 32.1 of the Subcontract Agreement); and
- xii. Determine the amount to be paid to a subcontractor under an interim (Cl. 31.0 of the Subcontract Agreement) or final payment certificate (Cl. 34.5 of the Subcontract Agreement).

All these powers granted to the principal agent are exercised without any contractual liability for the performance of its duties under the *Agreement* for the works. The reason for this is that the contract for the works is concluded between the employer and the contractor. The principal agent is not party to its terms and is thus not 'privy' to it (Hosten *et al.*, 1983). He or she is merely afforded powers under the *Agreement* to govern the contract. The principal agent's responsibilities are regulated by a separate contract of agreement concluded with the employer to act in a supervisory capacity. The principal agent's contractual responsibilities, therefore, are disconnected from the *Agreement* for the works. There is thus a complete separation of the principal agent's duty from the very basis of his/her responsibility and accountability.

3.2.2 Management of transactional behaviour

The instruments used to manage transactional behaviour under the *Principal Agreement* include:

- i. security for due performance;
 - ii. penalties for non-completion of the works;
 - iii. rights of 'set-off'; and
 - iv. certain mechanisms for the management of conflict.
- a) Security for due performance

In terms of the *Agreement*, the contractor may elect to provide the employer with either a 'variable' or 'fixed' construction guarantee (Cl.14.3 or Cl.14.4 respectively) as security for due performance. The purpose of the security is to furnish the employer with a ready means to satisfy partially any loss that it may sustain through a breach of contract by the contractor. Typically, this could include, late completion of the works, failure by the contractor to complete the works (which may necessitate the engagement of others to do so), or refusal by the contractor to re-do defective work, again necessitating the employment of others to make good the defects (Finsen, 2005). It should be noted that payments made by the guarantor to the employer in terms of the construction guarantee do not prejudice the rights of the employer or the contractor under the *Agreement* (Cl. 14.6).

The merits of the different kinds of guarantee are beyond the scope of this paper but may be considered by referring to Finsen (2005). What is important to note, however, is that the construction guarantee is restricted to the payment of money and that it is payable at call (Cl. 14.3.4 or 14.4.5). The employer, therefore, is not put to the inconvenience of having to prove his or her loss before receiving payment. The apparent simplicity of the process of recovery, however, is not so easily realised in practice.

Should the contractor fail to elect a form of security contemplated by the *Agreement* within (21) twenty one days of the acceptance of the tender, the employer may cancel the agreement (Cl. 14.7.2), or alternatively may 'hand over the site to the contractor and withhold payment from the contractor until the amount withheld is equal in value to (10%) ten percent of the contract sum' (Cl. 14.7.1). The money thus withheld is deemed to be a cash deposit although, in this instance, the employer would be under no obligation to hold it in an interest bearing account (Finsen, 2005).

All forms of security place the employer in a very strong position of control as he or she is not required to exercise the common-law remedy of placing the contractor into insolvency, at least in respect of the recovery of amounts up to the value of the security. It is submitted that claims for damages beyond the value of the guarantee or cash deposit, however, must be recovered through the courts.

- b) Penalties

Damages as a remedy for breach of contract is recompense for non-performance. They are, therefore, not intended to recompense the innocent party for his/her loss, but to put him or her in a position he or she would have been if the contract had been properly performed (*Victoria Falls and Transvaal Power Co. Ltd v Consolidated Langlaagte Mines Ltd*).

1915 AD 1). The courts, therefore, subject to certain qualifications, are concerned only with the financial position of the innocent party. For this reason, damages need to be proved otherwise none will be awarded (Christie, 2006). This, however, is not the case with penalties agreed between the parties to a contract since the enactment in South Africa of the Conventional Penalties Act (No. 15 of 1962) (Republic of South Africa, 1962). Penalties do not have to be an accurate pre-estimate of the damages likely to be suffered, nor are they limited to a consideration of the financial loss likely to be suffered by the employer. Penalties may include 'everything that can reasonably be considered to harm or hurt, or be calculated to harm or hurt a creditor in his property, his person, his reputation, his work, his activities, his convenience, his mind or in any way interferes with his rightful interests as a result of the act or omission of the debtor' (*Van Staden v Central South African Land and Mines 1969 (4) SA 349 (W)*, cited by Finsen, 2005: 144).

Today, therefore, it is not uncommon for parties to an agreement to include a term in the contract which binds one party to pay a fixed sum of money (a penalty) in committing a specified breach or perhaps any breach of the contract. As mentioned above, the Conventional Penalties Act regulates penalty provisions included in contracts. The most significant points of regulation being that where explicit provision is made for a penalty, the innocent party may not also claim damages for the same breach, nor the recovery of damages *in lieu* of the penalty, 'except where the relevant contract expressly so provides' (S 2(1)). The second point of significance is that the courts may reduce the amount of the penalty if it appears to be excessive (S 3).

Provision is made under the *Agreement* for a penalty to be paid to the employer in the event of 'non-completion' of the works by the date for practical completion stated in the Schedule, or by such revised date as may have been determined for practical completion by the principal agent (Cl. 30.0). The penalty, therefore, relates only to the loss of time under the *Agreement*.

One may interpret from the provision for a penalty in the event of non-completion of the works that time is not the 'essence' of contract under the *Agreement*, but merely 'material' from the point of view of the employer who stands to suffer financial loss should the works not be completed on time. In terms of the *Agreement*, the penalty is calculated as a fixed sum per day for every day that the works remains incomplete.

The benefit of a penalty clause under the *Agreement* again is the fact that the employer is not required to prove the extent of his/her damages at law before making a claim against the contractor. The principal agent shall merely calculate the penalty due from the date of practical completion stipulated in the Schedule to the actual date of practical completion (Cl. 30). The amount of such penalty shall be reflected in the recovery statement and the amount due shall be deducted against the payment certificate issued to the contractor (Cl. 33.1.1 and Cl. 33.3).

Whereas the penalty provision under the agreement generally acts as a strong deterrent against the contractor not completing the works on time, it is submitted that its effect does not necessarily extend to all cases of non-completion. For example, construction works of a relatively low value may nevertheless place the employer at severe risk if not completed on time. A high penalty provision in such circumstances may make contractors hesitant to submit a price for its execution, or they may merely

include the amount of the penalty in the tender, or an amount equal to their perception of the risk to which they are exposed by contracting for the works. Circumstances such as this may require the employer to forego the mechanism of a penalty to control transactional behaviour, and compel him/her rather to implement some other measure to manage the risk in the interests of procuring the works within an acceptable market budget. On the other hand, a low penalty, which in itself may be an accurate pre-estimate of damages likely to be suffered by the employer in the event of non-completion, serves little or no purpose.

c) Rights of 'set-off'

The right of 'set-off' is a recognised principle in South African common law (*Schierhout v Union Government 1926 AD 286*, cited by Christie, 2006), and is thus not an extraordinary remedy for the recovery for debts that are liquidated and fully due. The right can be excluded by contract. The right of 'set-off', however, is not excluded by an explicit contractual term under the *Agreement* and is, therefore, available to both parties. It is submitted, however, that the rights of 'set-off' are limited in scope to the explicit provisions recorded in the *Agreement*. It should also be noted that the rights of 'set-off' between the parties are weakened by the fact that they are placed under the governance and control of the principal agent who is the only one who may deal with debts that arise between the parties under the *Agreement* by way of 'set-off' (Cl. 33.3.1).

Items of expense and loss that the contractor may recover from the employer are limited to:

- Compensatory interest (Cl. 33.1.4);
- Default interest (Cl. 33.1.5); and
- Damages arising out of the employer's default and cancellation of the contract by the contractor (Cl. 33.1.6); and
- Advance payments (Cl. 33.1.7)

The employer's rights of 'set-off' under the *Agreement* for the recovery of loss and expense are much wider than that of the contractor and include:

- i. Penalties for non-completion (Cl. 33.1.1 and 30);
- ii. Default interest (Cl. 33.1.2 and Cl. 31.12);
- iii. Insurance premiums paid which the contractor has failed to remit (Cl. 33.2.1);
- iv. The cost of engaging others to carry out contract instructions which the contractor has failed to execute (Cl. 33.2.2);
- v. Additional costs arising from the cancellation of a nominated subcontract due to the default or insolvency of the contractor (Cl. 33.2.3);
- vi. Interest on any amount due by the contractor to the employer in terms of a previous interim payment certificate (Cl. 33.2.5);

- vii. The additional cost of completing the contract whether the contract has been cancelled due to the default of the contractor (Cl. 33.2.6);
- viii. Amounts paid directly to nominated and selected subcontractors on the failure of the contractor to make such payments (Cl. 33.2.8); and
- ix. Default by the contractor (presumably for any other loss or expense incurred by the employer), subject to seven (7) calendar days notice detailing such default has been given prior to the issue of the next recovery statement in order to allow the contractor the opportunity to remedy such default (Cl. 33.2.7).

It is submitted that the scope of the employers rights of 'set-off' under the Agreement provide a strong (albeit indirect) tool in the management of the transactional behaviour of the contractor, especially in view of the fact that the principal agent's recovery statement and accompanying payment certificate would provide *prima facie* evidence of the extent of the loss and expense due for recovery by the employer.

d) Certain mechanisms for the management of conflict

In an effort to facilitate a structured process of negotiation, the *Agreement* commences the dispute settlement process with the need for a notification to be given in writing by the aggrieved party to the respondent calling on the latter to resolve a 'disagreement' (Cl. 40.1). No procedures are given, however, on how to ensure legitimacy of the nature of the disagreement, or on how to make sure that the disagreement is properly documented before referring the matter up to the next level of management in both organisations, and/or prior to third party determination. The wide ambit of the clause, permitting 'any disagreement' between the parties being the subject of notice (Cl 40.1), therefore, could lead to an abuse of process

The *Agreement* provides no definition as to what constitutes a disagreement and, added to the complexity of the wording, the *Agreement* elevates a 'disagreement' to the level of a 'dispute' after a lapse of a nominal period of 10 (ten) days from the date of notification (Cl. 40.2). This elevation of status of a 'disagreement' takes place notwithstanding the linguistic difference between the terms both in substance and subject matter (see Longman Dictionary of Contemporary English, 1991; Concise Oxford English Dictionary, 2004) and makes the dispute now immediately subject to adjudication by a third party (Cl. 40.2.1#). Although, by so doing, the parties are not thereby deprived of their rights to resolve a dispute by mediation at any time (Cl. 40.6#)

Finsen (2005) in his interpretation of clause Cl. 40.1 around the issue of a disagreement makes no clear distinction between the terms 'disagreement' and 'dispute', using them interchangeably, and cites merely two decided cases which propose that a disagreement must be a genuine disagreement, involving differing and conflicting points of view held by the respective parties, and not merely a failure of one of them to honour a contractual obligation. He argues, therefore, that if the respondent maintained his/her silence on the matter it cannot be said that a disagreement exists between the parties. The aggrieved party, therefore, would be put to the inconvenience of applying to court for a ruling in these circumstances. Finsen's argument is based on a proposition that a lack of 'disagreement' would prevent the issue from

being brought within the scope of the dispute-resolution clause. The authors, however, question this interpretation in light of the most recent and authoritative English decision on what constitutes a “dispute” and how it may be construed to exist (*Collins (Contractors) Ltd v Baltic Quay Management (1994) Ltd* [2005] BLR 63 CA 74).

The next step available to the parties should the disagreement not be resolved within a period of 10 (ten) days) is adjudication (Cl. 40.2.1#), providing the parties did not agree otherwise at the time of contract to proceed rather directly to arbitration (see Cl. 42.7.1 of the schedule). A State employer, however, proceeds directly to litigation where a disagreement remains unresolved (see Cls. 40.2.1# and 40.2.2# read together).

The process of adjudication is a dispute settlement mechanism recently borrowed from English law and adopted in the *Agreement* (Cl. 40.2.1#). The mechanism is also widely applied in other major construction agreements used in South Africa (See FIDIC, NEC3 and the 2002 edition of the GCC). The most obvious benefit of the mechanism is that it is informal and thus quick and easy to apply, providing speedy relief to the affected party. The JBCC Adjudication Rules (2005) require the adjudicator to make a determination within 20 (twenty) working days, subject only to an extension of time of 10 (ten days) by mutual agreement between the parties (Rule 7.1.1).

The weakness of the adjudication process in South Africa is that there are no statutory provisions to enable a court to appoint an adjudicator, where the parties themselves could not agree on the appointment, nor to set aside the adjudicator’s appointment on the grounds of bias or his determination for misconduct, nor to enforce the adjudicator’s decision (Finsen, 2005). The other challenge of the adjudication process is that the adjudicator determines an issue as an expert and not as an arbitrator and can, therefore, be held responsible for its result if the determination is defective and causes a loss to either of the parties (Finsen, 2005). This may make it difficult to appoint someone as an adjudicator in the absence of a formal indemnity by the parties releasing him/her from such a consequence.

For reasons not immediately evident in the *Agreement*, or from the relevant literature, no obvious clarity exists on why the option of litigation is reserved only where the State is the employer (Cl. 40.2.2). The State, clearly, may prefer litigation for reasons of probity and transparency in the event of a dispute affecting public funds. Private sector clients, however, may also have strategic reasons for preferring rights to litigation in the event of a failure to resolve a dispute. These may well include, *inter alia*, the leverage it provides over a supplier as a threat of a loss of confidentiality due to the public nature of litigation, especially if the supplier is a public company or is sensitive about its reputation due to past behaviour, or even as unfair leverage, merely to retain the peril of a costly legal battle if disputes are not speedily settled. There may, therefore, be sound reasons for all parties, both public and private, to retain a right to litigation in the interests of the investment/business case.

Arbitration in South Africa is regulated in terms of the Arbitration Act, No. 42 of 1965. Arbitration as a mechanism of dispute settlement, however, is not new. It has been practised since Roman times. A comprehensive review of the merits and disadvantages of arbitration, therefore, are beyond the scope of this paper, other than to mention a few points that

determine its efficacy as a mechanism to resolve disputes between contracting parties in South Africa, and the scope of disagreements/disputes that may be referred to arbitration under the *Agreement*.

Provision is made in the Act for the courts to support and assist the process of arbitration. The arbitrator's award, therefore, is final and binding unless otherwise 'agreed' by the parties (S 28) (Note: no such 'agreement' is provided for in the *Agreement*). The courts, therefore, will not set aside the arbitrator's award except in certain circumstances (S 33). The scope of disagreements that may be referred to arbitration under the *Agreement* include "...any disagreement between the employer or his agents and the contractor as to any matter arising out of or concerning this agreement" (Cl.40.1), and ".... any disagreement between the contractor and the subcontractor as to any matter arising out of this n/s agreement" (Cl.40.1 of the JBCC Nominated / Selected Subcontract Agreement (2005)).

Finsen (2005), citing *Kathmer Investments (Pty) Ltd. v Woolworths (Pty) Ltd. 1970 (2) SA 498 (A)*, points out that the provision thus also includes "a dispute about any of the rights and obligations of either of the parties under the *Agreement*", as well as "a dispute as to whether either party had breached the *Agreement* or not, and a dispute as to whether a term of the *Agreement* should be rectified." As the dispute resolution clause survives the cancellation of the contract (Cl.40.10), Finsen (2005) suggests that a dispute as to whether or not a party which has cancelled the contract was lawfully entitled to do so would come within the scope of this clause.

3.3 Performance management

3.3.1 Time management

Three criteria/descriptors are given in the *Agreement* that require the execution of the works (Cl. 2.1) be carried out with speed: *diligence*, *regularity* and *expedition* (Cl. 15.3). No objective measures related to these criteria, however, are provided in the *Agreement*, which leaves the employer without any direct or proactive means of management and control over time. The contract JBCC Preliminaries (2005) stipulates merely that the contractor 'shall be responsible for a programme for the works' (Cl. 4.2 of the Preliminaries document), but places no onus on the contractor to construct the works in accordance with the programme or to update it at regular intervals in accordance with actual progress on site. The *Agreement*, however, does make express provision for the recovery of damages (penalties) in a fixed amount per day in the event of delayed or non-performance (Cl. 30.0). The employer is thus merely afforded a remedy to recover any pecuniary loss suffered by reason of late delivery (Cl. 33.1.1). The means of control is thus indirect and reactive.

The employer also may not cancel the contract for reasons arising from a general failure of the contractor to proceed with *diligence*, *regularity* and *expedition* unless he or she has issued notice in terms of the *Agreement* (Cl. 36.2).

3.3.2 Cost management

The management of cost in the *Agreement* falls wholly outside the contractor's responsibility. The reason for this is that the employer must

prepare and provide the documents on which the contract of agreement is based. The contractor merely tenders a price based on these documents. After acceptance of the price, it is only the employer who may vary its amount through instructions issued by the principal agent (Cl.17.1). Cost, therefore, is the responsibility of the employer and is thus not a performance measure under the contract.

Several other issues were identified in the *Agreement* that further limit the employer's control over cost:

- The contract sum 'as stated in the schedule' is recorded merely for the purposes of contract. It does not establish the employer's obligation to the contractor. It is merely a reference point (Finsen, 2005). The *Agreement* uses a mechanism termed the 'contract value' that is equal to the 'contract sum' as the instrument for varying the change in cost. A review of the conditions for change in the 'contract value' listed in the *Agreement* (Cl. 32) would seem to indicate that there is no intention to fix the final cost of the works at the outset;
- There is no provision in the *Agreement* that obligates the contractor to keep the employer informed on the current financial status of the works. The employer is thus reliant on the professional team for such information, which often lags in the reporting process due to procedures and timelines (Bowen and Edwards, 1996); and
- The employer's control over cost is not direct. The management of cost falls under the control and administration of the employer's principal agent who enjoys an independent discretion in the exercise of his or her duties (Cl. 38.1.7#). The *Agreement* records expressly, that only the principal agent 'shall determine the value of adjustments to the contract value' (Cl. 32.1).

In practice, however, especially on contracts let with a high proportion of prime cost/provisional sum items, and/or where the project budget is under threat, it is not uncommon for the contractor to play a significant role in assisting the principal agent to explore ways and means to manage and control cost through alternative specifications, designs, and/or building methodology. The contractor, however, is under no contractual obligation to perform this service.

3.3.3 Quality management

The descriptor/criterion used in the *Agreement* to define the requirement for quality is the term 'due skill' (Cl. 15.3). No definition of this term is given in the *Agreement* and reference must thus be made to other reliable sources in order to gain a broad understanding of its intrinsic meaning. Reference to *Longman Dictionary of Contemporary English* (1991: 985) suggests that 'skill' is defined as "a special ability to do something well." By implication this would require both a familiar knowledge of the art or science necessary to undertake the task, as well as the practical mastery required for its 'execution'. The qualification given to the type of skill required is that it shall be 'due' skill, that is a skill (or a standard of proficiency) demanded by the very nature of the works to be executed. No objective measures for the criterion, however, are given in the *Agreement*, which makes it very difficult to decide in advance how quality will be managed and controlled. The contractor must obviously produce a satisfactory standard of workmanship, and the common law position in South Africa is that the contractor must produce a standard of

workmanship that is of a similar standard to that produced by other competent contractors working in similar circumstances (Finsen, 2005).

The *Agreement* does provide a contractual stipulation stating that “the principal agent shall inspect the works from time to time to give the contractor interpretations and guidance on the standard ... of the works” (Cl. 24.1.1). The obligation, however, does not extend to supervision or responsibility for the works to ensure compliance. This situation may be described as a divided responsibility (Rwelamila, 1996) and constitutes a breakdown in the communication process necessary to maintain the link between the client's expectations and the final quality of the outcome of the works.

It should also be noted that there is a growing body of literature critical of the reactive focus of operational techniques and activities of ‘quality control’ and ‘quality assurance’ practices that have become a primary source of problems facing the construction industry globally (Rwelamila, 1996). Quality management in construction, however, ideally requires the implementation of systems that proactively minimise mistakes, and is not merely a bolt-on system of inspection that must continually order remedial action on completed work.

3.3.4 Risk Management

The most important risks assumed by the employer relate to the very nature of the commercial venture to procure the works. As Stevens (2001) points out, risk is an intrinsic attribute of construction and property development. These risks could be defined as the risks related to the strategic objectives arising from the investment/business case. None of these risks, however, are explicitly defined for management in the *Agreement*, and any provision for their administration can only be inferred from the extent to which they are included within the parameters of time, cost and quality inherent in the contractor's responsibilities for the ‘execution’ of the works. The flaw in the risk management system under the *Agreement* therefore appears to be its very separateness from the commercial context of the overall strategic objectives for the project.

i. The employer's risks

Risks borne by the employer include those external risks listed as uninsurable by the South African Insurance Associations Exceptions. These risks include risks to the works arising from, *inter alia*, war, riot, nuclear activity, confiscation, nationalisation or requisition by any public or local authority (Cl. 8.5). Insurance for riot and related risks, however, may now be insured through the South African Special Risks Insurance Association (SASRIA) and provision is made in the Schedule to record the limit of liability should the employer elect that such insurance be effected.

Other risks specifically excluded from the contractor's responsibility but that are internal to the project and fall on the employer (See Cls. 8.0 and 9.0). (with due regard to certain exceptions) include, *inter alia*:

- acts or omission of the employer, the employers servants or agents and those for whose acts or omission they are responsible (Cl. 9.2.1);
- an act or omission of a direct contractor appointed by the employer (Cl. 9.2.2);
- design of the works where the contractor is not responsible (Cl. 9.2.3);

- the occupation of any part of the works by the employer or his tenants (Cl. 9.2.4);
- the right of the employer to have the works or any part thereof executed at the site (Cl. 9.2.5#);
- interference with any servitude or other right that is the unavoidable result of the execution of the works including the weakening of or interference with the support of land adjacent to the site unless resulting from any negligent act or omission by the contractor or his subcontractors (Cl. 9.2.6#);
- physical loss or damage to an existing structure and the contents thereof in respect of which the *Agreement* is for the alteration or addition to the existing structure (Cl. 9.2.7#);
- physical loss or damage to the contents of the works where practical completion has been achieved (Cl. 9.2.8#);
- the use or occupation of the site by the works (Cl. 9.2.9#); and
- advance payments where certified and duly made by the contractor to nominated subcontractors or selected subcontractors (Cl. 9.2.10#).

It should also be pointed out the employer is responsible for all the contractor's risks that exceed the amount of the contract works insurance as may be stated in the Schedule (Cl. 8.4).

The contractor, however, has an explicit obligation to inform the principal agent of any physical loss and damage that comes to his or her attention (Cl. 8.7).

ii. The contractor's risks

The contractor's listed risks relate to the risk of the works, from the date of possession of the site to the date of practical completion. The extent of the contractor's risk in this regard includes the making good of physical loss and repairing damage to the works (Cl. 8.3.1); the replacement value of materials and goods supplied by the employer to the contractor (Cl. 8.3.2), and the cost of additional professional services of the employer's agents.

The contractor's liability for risks, therefore, is wholly internal to the *Agreement* in the execution of the works and is not explicitly focused on any of the broader issues of procurement that could determine strategic objectives.

iii. The professional advisor's risks

Professional advisors under the *Agreement* carry the least risk for their participation in the construction project, notwithstanding the tremendous impact they are able to have on the project process, both negative or positive. The reason for this in South Africa is because of the doctrine of the privity of contract. Parties who are not privy to a contract cannot sue or be sued on it (Christie, 2006). Professional advisors, therefore, carry no contractual responsibility derived from the *Agreement* for activities related to the execution of the works. They are, however, responsible for the risks associated with the execution of their own services and responsibilities to the

employer under separate agreement, and the employer's internal project risk is moderated to this extent.

iv. The reimbursement mechanism

In terms of the *Agreement*, the contractor is entitled to receive interim payments (Cl. 31). This practice is a departure from South Africa's common law for the letting and hiring of work. In terms of South Africa's common law of *locatio conductio operis*, the *conductor operis* is 'normally obliged to carry out the work which he is engaged to do before the contract money can be claimed' (De Wet and van Wyk, 1978: 138). The basis of this law is known as the principle of reciprocity which requires that there should be an exchange of performances between the parties to an agreement (Christie, 2006). The contractor's right to an interim payment, therefore, is contractual. The fact that it is interim, however, does not mean that it is made in settlement of the employer's obligations for work done. This is an important point in favour of the employer in the management of cost. The courts in South Africa have held that interim payments made are merely advance payments against the totality of work still to be done (*Thomas Construction (Pty) Ltd (in liq) v Grafton Furniture Manufacturers (Pty) Ltd* 1988 (2) SA 546 (A)). This means that interim payments are subject to revision on reasonable grounds and may be amended in value at the time when future interim payments are made, or at the time of determining the final account.

The amount certified is required to be a 'reasonable' valuation of the total amount of work carried out to date, including variations, plus a reasonable valuation of unfixed materials and goods, whether on or off site, procured by the contractor for the works, less the total amount previously certified and with Value Added Tax (VAT) added to the resulting amount (Finsen, 2005).

Interim payments are required to be calculated monthly and a payment certificate issued (Cl. 31.1). The principal agent is not permitted to omit the issue of the certificate for any reason, even if the contractor has failed to bring the works to practical completion by the date stated in the Schedule. The reason for this is that the *Agreement* makes provision for the preparation and issue of a 'recovery statement' at the same time as the issue of the payment certificate which, *inter alia*, makes provision for the recovery of penalties levied in terms of Cl. 30 in the event of non-completion. The payment certificate, therefore, may be for a nil or negative amount as may be determined by the circumstances prevailing at the time of issue, but it must still be issued in terms of the explicit requirements of the *Agreement*.

With the exception of State contracts concluded in terms of the *Agreement*, the level of control that the employer may exercise over this process is again limited by the independent authority enjoyed by the principal agent.

4. **Project delivery using The JBCC Principal Building Agreement: a case study**

Details of the case study reported here are drawn from Richards *et al.* (2005). A single case study approach was adopted as the project involved the use of the standard *JBCC Principal Building Agreement* between a contractor and a developer with a Development Agreement between the developer and the construction client. As such it constitutes an 'extreme' or 'unique' case (Yin, 1994; United States GAO, 1990) which, because of the existence of the two agreements, highlights the shortcomings of *JBCC Principal Building Agreement* in addressing the client's strategic objectives in the way the project process is made

more complex when used alongside other sets of agreements which more closely reflect those objectives. At the time of the collection of the data, the contract for the project had already been signed between the client and the developer, and construction had been in progress for several months.

.1The Client

The client is an established tertiary education institution in the public sector that actively engages in education, training and research. The client's activities are funded through a combination of state funding and fee income. Owing to the restructuring and changing priorities of government, state funding for SA tertiary institutions is in a state of flux with funding being re-directed to redress historical imbalances with a consequent reduction in state subsidy to the client. To succeed, tertiary institutions are adopting a more business-like approach to management and marketing, boosting revenue by increasing the number of students, rationalising courses offered, enrolling more foreign students and entering into partnerships with the private sector in commercially exploiting research. The client's mission is to be foremost in its areas of service in meeting the education needs of South Africa within the parameters of government objectives, the imperatives determined by industry, and the expectations of the international community.

The client's strategy of increasing student enrolments and improving its research facilities has led to a considerable construction programme involving a number of new-build and refurbishment projects. In addition, the existing built estate requires an extensive maintenance programme. The client, therefore, commissions a steady stream of small- to medium-sized projects with at least one major new development every two to three years in the range of R30m to R50m (R14.00 = 1 GBP, December 2006). Table 1 presents the client's construction procurement features and processes.

Table 1: The Client's construction procurement features and processes

Supply chain	The client maintains a separate department responsible for its property development and maintenance programme. The department is well staffed with its own project managers, architects, engineers and quantity surveyors and it is able to manage projects up to R5m. Projects larger than R5m are outsourced.
Supply chain relationship	The client maintains a database of service providers for professional and construction services, and specialist suppliers. Inclusion on the database is subject to a registration procedure. Selection of a service provider for appointment to a particular project is based first on the State's policy for black empowerment and preferential procurement and thereafter follows an assessment of technical competence, capacity, programme, and an understanding of the client's requirements. The client, therefore, outsources only to preferred suppliers. Professional consultants are appointed more or less on a rotation basis. Construction contractors and suppliers are subjected to competitive tender.

Procurement strategy	<p>Construction management is the preferred route of procurement for all projects under R5m. The main reasons for following this organisational method of procurement are that it:</p> <ul style="list-style-type: none"> • Allows the client to have a single point of contact with the supply base; • Permits separate competitive tendering for all trade work packages and thus maximizes cost savings; • Affords an intimate understanding of market pricing; • Strengthens the client's strategic costs and value management systems; • facilitates fast-track programming, and thus early project delivery; • builds internal capacity in regard to product development; • facilitates lessons learnt which can be carried forward within the client's organization; • is focussed on strategic objectives driven by the low allocation of monies in current annual capital expenditure budgets. <p>Projects above R5m are wholly outsourced under the <i>separate and coordinated</i> (i.e. traditional) procurement system using a single principal building contractor.</p>
Contractual arrangements	<p>Projects procured under the construction management model are contracted in terms of the <i>JBCC Minor Works Agreement (2005)</i> for each trade package. Outsourced projects are contracted in terms of the <i>JBCC Principal Building Agreement</i>.</p>

The categories of the construction work undertaken by the client with their associated different business requirements are classed as new-build, extension/modification and maintenance/refurbishment. New-build projects are affected by the limit of available funds. Research facilities are funded mostly by money made available through grants obtained locally or from abroad. The allocation of these funds is driven by strong stakeholder interests. Student accommodation is procured on the strength of the business case by contracting with a developer using a lease back mechanism in order to avoid the need to raise large amounts of development capital. There is a strong focus on whole life-cycle costs on these projects rather than on initial capital cost.

The client has definite generic strategic objectives for all its construction procurement as shown in Table 2. However, specific strategic objectives arising from the business case are identified and defined on a project-specific basis.

Table 2: Schedule of Client strategic objectives in construction

Socio-economic objectives	<p>The client endorses the principles of:</p> <ul style="list-style-type: none"> • sustainable development, as enunciated in the constitution and thus seeks to comply with all statutory provisions and guidelines governing its own projects in the built environment; • Sustainable construction, and has thus instituted an Environmental Management System (EMS) framework in accordance with ISO 14001 for implementation on all their projects; • The involvement of previously disadvantaged and marginalised sectors/individuals and thus procures its construction works in accordance with the Preferential Procurement Policy Framework Act, No. 5 of 2000, and the targeted procurement policies developed by the Depart of Public works; • a safe working environment for all its staff and external service providers appointed to work on its property, and thus seeks to comply with the provisions of the Health and safety Act, No 85 of 1993, and the Draft Construction Regulations published in government Gazette 23310 of 2002.
Technological objectives	The client has developed standards for all construction materials and finishes, building systems, installed equipment, and furniture and fittings. The standards relate directly to whole life-cycle building costs which must fall within defined parameters.
Operational objectives	Design functionality for all construction works must adhere to the operational requirements of its various departments responsible for the running and maintenance of its buildings after project completion.
Aesthetics	The client maintains its own aesthetics committee which is mandated to ensure that all its buildings fit the context of the environment into which they are placed. In this regard, the client also seeks to cooperate with the aesthetics committees of other bodies, whether regulated or not, which may have a vested interest in the client's construction projects.
Organizational objectives	The client seeks to develop and empower its staff and thus increase its organizational capacity by the process of the development of its own property. Objectives in this regard, are defined and undertaken on a project specific basis.
Stakeholder objectives	The client maintains a proactive relationship with all its regular stakeholders and has constituted various forums in which to engage with them on a regular basis. Project stakeholders are identified at the inception of each project and their needs are identified for negotiation in terms of project objectives.
Functional objectives	Objectives related to time, cost, and quality are project specific and are identified for management in terms on the investment/business case.

.2 The Project

The project was a new build student residence located on a piece of land strategically purchased by the client some years prior to the decision to build. The business case for the project arose from a shortage of student accommodation.

The business case suggests that the annual cost of the lease offered by the developer who would finance and build the new residence could be covered by the normal accommodation rental paid by students. Demand from end users was high and before the accommodation for the residence was built it was fully subscribed. The success of the business case, however, was premised upon gaining completion of the student residence before the commencement of the academic year. Failure to gain completion by that time would have several significant consequences to the client:

- the loss of the enrolment of the students who had applied for residence in the new facility, not only for the first academic year, but also for the full period of time intended for their studies; and
- the loss of the revenue for the whole facility for the first twelve months of operation. The client regarded the combined business risks as significant requiring proactive management.

Two contract agreement documents involved in the procurement of the project are the Development Agreement between the developer and the client, and the *JBCC Principal Building Agreement* between the developer and the contractor.

The Development Agreement between the client and the developer require the developer to:

- Construct and deliver the new student residence within twelve calendar months from the date of handover of the site by a predetermined date;
- Appoint design consultants formally approved of by the client;
- Procure the construction works on the basis of the *JBCC Principal Building Agreement*;
- Obtain prior written approval from the client before making payments to the contractor; and
- Effect handover of the completed residence based on a final completion certificate issued by the principal agent in terms of the *JBCC Principal Building Agreement*.

The agreement also required the client to enter into a fixed period, and fully repairing, agreement of lease with the developer on completion of the works. The design in which the outline design was produced by the client and supply of a new residence building is in accordance with the client's brief.

The following section analyses both the Development Agreement and the *JBCC Principal Building Agreement* to determine the manner in which the client had articulated its strategic objectives for the purposes of management, control and performance measurement.

4.3 Reconciling the Development Agreement and the JBCC Principal Building Agreement

An inspection of the JBCC Agreement between the developer and the contractor shows that it had been concluded without amendment, and that it agreed with the material terms of the Development Agreement signed by the developer and the client in all respects. It would therefore seem logical that the objectives of the client would be communicated to the contractor by the

developer. After all, any construction risk that the developer would bear would sensibly be passed on to the contractor who is best placed to manage that risk. Consequently, there ought to be a degree of alignment between the two agreements.

4.4 Principle Observations

On the basis of this proposition, the contractual arrangements were evaluated for their suitability in meeting the client's strategic objectives as shown in Table 2 and a comparison of the two agreements in achieving this is presented in Table 3.

Table 3: Analysis of the strategic objectives identified in the *Field Study* against the intrinsic provision made in the *JBCC Principal Building Agreement* for their management, control and performance measurement

STRATEGIC OBJECTIVE	HOW STRATEGIC OBJECTIVE IS MET AND CONTROLLED IN JBCC	HOW PERFORMANCE CRITERIA IN JBCC CONTRIBUTE TO MEASUREMENT OF STRATEGIC OBJECTIVE ON COMPLETION	COMMENTS
Socio-economic objectives			
- Sustainable development	No provision	No provision	Could have been incorporated under Preliminaries.
- Sustainable construction	No provision	No provision	Ditto.
- Black Empowerment	No provision	No provision	Ditto
- Health and Safety Act	Cl. 7	No provision	The obligation for Health and Safety (H&S) in the JBCC is placed on the contractor (Cl.7). The Regulations (2003), however, shift the primary onus of H &S onto employer.
Technological Objectives			
- Building materials and finishes	Employer specification	No provision	Materials used must be fit-for-purpose if not specified.
- Building systems	Employer specification	No provision	Systems used must be fit-for-purpose if not specified.
- Equipment	Employer specification	No provision	Equipment installed must be fit-for-purpose if not specified.
- Furniture and fittings	N/A	N/A	Contract only for works execution.
- Whole life-cycle costs	Employer specification	No provision	Employer obligation.
Operational objectives			
- Design functionality	N/A	N/A	Employer obligation. Contract only for works execution.
Aesthetics			
- Aesthetics	N/A	N/A	Employer obligation. Contract only for works execution.
Business case objectives			
- Organisational objectives	No provision	No provision	Would have to be negotiated with contractor.
- Stakeholder objectives	Employer specification	No provision	Employer obligation.
- Functional Objectives			
• Time	Cl.15.2	Subjective criteria	Work to be executed with 'diligence', 'regularity', 'expedition'.
• Cost	No provision	No provision	Employer obligation.
• Quality	Cl. 15.2	Subjective criterion	Workmanship to be executed with 'due skill' to a standard determined by the principal agent.

The conclusion drawn from this analysis is that neither contractual arrangements supported the client's strategic objectives. More specifically, the *JBCC Principal*

Building Agreement was not only at variance with the client's established supply relationship with the developer, but it made no meaningful contribution to the management and control of the client's strategic objectives, nor did it provide any basis for the measurement of project outcomes in terms of these matters.

A review of all key planning documents and organizational systems revealed how the *JBCC Principal Building Agreement* signed by the developer and the contractor failed to meet the client strategic objectives as there was:

- No evidence that a project organization had been purposefully designed to meet strategic project objectives;
- No master development programme for the project in terms of time;
- No formal quality management plan for the project in terms of the client's technological objectives;
- No formal site safety management plan;
- No formal environmental management plan for the control of construction activities in terms of ISO 14 001;
- No stakeholder management plan for the management of project stakeholder objectives or relationships; and
- No formal procurement management plan in terms of the client's stated objectives for preferential procurement.

Following the review of the documentary evidence, interviews were conducted on a semi-structured basis with the project manager and the architect to explore these issues and to correlate and validate specific findings. Both the developer and client were unwilling to be interviewed, although the client provided the project documentation. These documents confirmed the initial observation that the client's strategic objectives in terms of the socio-economic objectives and corporate policy were not explicitly communicated to the team, nor stated in the project documents made available to them.

Both interviewees opined the supply relationship between the client and the developer prior to conclusion of the development agreement as being collaborative in nature; a *de facto* joint venture, where one party provided land and the other finance. Both expressed surprised that the client subscribed to the *JBCC Principal Building Agreement*. Both considered the supply relationship and the contractual arrangement to be inappropriate for the achievement of the strategic objectives of the client for the project because of the number of unresolved issues that remained the start of the project. Their opinion was that the *JBCC Principal Building Agreement* is only appropriate where there is certainty in design information and where the client is fully involved in the construction process. Both found that the division of roles and responsibilities between the client and developer in terms of their rights and obligations in respect of outstanding matters to be completely inadequate as there is no definition, nor any parameters for their resolution.

Two steps taken by the client and the developer to manage the project for the client's stated strategic objectives were identified by the architect and project manager, namely:

- putting a completion date in the contract; and

- the appointment by the developer of a professional planner.

Other than these, they were unaware of any specific measures or steps taken to manage project risk in terms of the contract and that performance criteria for the project were neither identified nor defined.

An analysis of all the project documents provided yielded only one clear client strategic objective, namely, project completion by the date recorded in the Development Agreement. This objective was reinforced by significant penalties. This would indicate that the choice of supply relationship adopted by the client appears to have been ill-considered for several reasons:

- The client procured the development by protracted negotiation with a *single source* supplier. The relationship was highly collaborative from the start. Both the project manager and the architect described the supply relationship at inception as being akin to a *joint-venture*;
- The brief was incomplete at the date of contract. Both the Development Agreement and *JBCC Principal Building Agreement* suggesting that it was going to require significant levels of joint working throughout the construction period to ensure final product quality for project delivery;
- The nature of the agreement to proceed with the project before contract was premised on a working relationship that was destined to last for more than two decades; and
- A strong demand by client stakeholders that had impacted on project scope.

It would appear that the essence of the contractual arrangement between the client and the developer was a 'turn-key' development contract. The arrangement in which both the Development Agreement and *JBCC Principal Building Agreement* were applied to the project, however, proved unduly complex for several reasons:

- The client had bound the developer to procure the construction works in terms of the *JBCC Principal Building Agreement* and then, through the terms of the Development Agreement, agreed to bind itself to accept project completion based on a final completion certificate issued to the developer by the principal agent (see Clause 26 of the *JBCC Principal Building Agreement*) in terms of a contractual arrangement between the developer and the contractor. The arrangement effectively precluded the client from exercising any direct control over an event intrinsic to its contractual rights under the Development Agreement; and
- Explicit in the development agreement was an understanding the client would rely on all systems of management and control intrinsic to the *JBCC Principal Building Agreement* in order to satisfy its objectives. It should be noted that the client's interests in this regard are not recorded in the construction agreement. The arrangement again effectively precluded the client from exercising any direct control over matters of immediate contractual right under the Development Agreement.

The weakness in the development agreement was that the client chose to rely on mechanisms of control privy only to the developer in terms of its relationship with the contractor at the second tier of the supply chain. The client clearly stood outside this contractual relationship and left itself without any means to exercise its rights under those terms. The client's contractual position was thus greatly weakened. It is postulated that this rather complex contractual arrangement between the client, developer and the construction contractor occurred because of a 'thoughtless' decision, possibly driven by 'over-familiarity' or 'trade-usage' (Root and Hancock, 1996) to make use of the *JBCC Principal Building Agreement* which is so conveniently available to the construction industry.

It is clear that the reliance of the parties (and in particular the client) on the *JBCC Principal Building Agreement* was born out of a certain familiarity and confidence in its established use. Regretfully, the approach of the parties prevented them from adopting a ready mind to their own unique contractual requirements. Their attempt to cure their commercial arrangements in terms of this agreement, therefore, did much to weaken their contractual position with a tendency to produce many oddities that could consequently lay the foundation for serious conflict/dispute.

5. Conclusions

This article has shown that the South African *JBCC Principal Building Agreement* deals only with the transaction to procure the built asset (construction work) within the parameters of the time required for its delivery, its cost, and the standard of quality to which it must be built. Its focus, therefore, is placed on construction process and the description of the product required for project delivery. The limitation of such a contracting method, in terms of the argument presented thus far, would seem to indicate that the *Agreement* lacks utility for the control of strategic objectives, or to establish the measures necessary to evaluate their success.

As a standard form document, *JBCC Principal Building Agreement* makes no provision to deal with strategic objectives not met by its philosophy, structure, or parameters. All other procurement issues related to the strategic and organisational objectives of the investment and business case that should be decided and managed under appropriate parameters fall outside its structure and control. This means that construction clients who use the document for the benefit of its convenience are obliged to consider its adequacy to manage strategic objectives within the wider sense of the investment and business case. The document clearly prevents the client from accurately expressing his or her specific project wishes but rather merely moulds the client's intentions into a prescribed document.

At present in South Africa there is the added focus of development objectives that have been identified as strategic for the whole country. The imperatives documented by government include the creation of sustainable employment, skills development, affirmative action, the active promotion of small and micro- enterprises, and the development of public sector capacity to manage the delivery process. Government policy requires that the construction industry respond to these issues.

These imperatives reinforce the strategic value of process over product and should be reflected in the way the project is organised overall and in the methods of implementation - a matter that is clearly absent from the current version of the *JBCC Principal Building Agreement*. Up until the present time, procurement emphasis has been placed on awarding contracts to companies with a requisite percentage of black equity shareholding. Recent market

signals indicate, however, that added weight is being placed on meeting the country's imperatives by operational practices within the construction process. It has thus become more important to structure the contractual framework accordingly and to determine performance measures aligned with a uniquely developmental approach which, in turn, is responsive to specificities, and the resource base of the location in which it is to occur.

6. Future research

The following suggestions are offered for further research:

- Methodologies need to be developed to assist in the examination of the appropriateness of the *JBCC Agreement* to various client investment / business case scenarios;
- Alternative standard forms of contract should be developed for the different procurement systems used in South Africa (e.g., construction management, management contracting, design and build, etc.);
- Mechanisms need to be developed for inclusion in the *Agreement* to facilitate the management and control of second-order objectives related to sustainable construction;
- Mechanisms need to be developed to facilitate holding the principal agent and other agents contractually responsible for the performance of their duties in respect of the execution of the works;
- An alternative mechanism(s) needs to be created to reimburse the construction client for his or her loss where the provision of a penalty on the contractor is inappropriate in respect of non-completion;
- Alternative mechanisms need to be considered for inclusion in the *Agreement* in order to control transactional behaviour (e.g. joint working, financial incentives, etc.);
- Objective criteria need to be developed for the proactive management of time and quality;
- Mechanisms need to be developed to include cost management as part of the contractor's responsibility;
- Mechanisms need to be developed to manage risk within the *Agreement* that is intrinsic to the outcome of the strategic objectives of the investment/business case;
- Objective criteria need to be developed to ensure the legitimacy of the nature of a 'disagreement' before it is elevated to the status of a 'dispute'; and
- Procedures need to be developed to ensure that a disagreement is properly documented before it is referred up to the next level of management in the organisations of both contracting parties and/or third party determination.

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References

- Bowen, P.A. and Edwards, P.J. 1996. Interpersonal communication in cost planning during the building design phase. *Construction Management and Economics*, Vol.14, No.5, pp.395-404.
- Bowen, P.A., Pearl, R.G. and Edwards, P.J. 1999. Client briefing processes and procurement method selection: a South African study. *Engineering Construction and Architectural Management*, Vol.6, No.2, pp.91-104.
- Bryman, A. 1988. *Quantity and quality in social research*. London: Unwin Hyman Ltd. (Contemporary Social Research Series No.18.).
- Christie, R.H. 2006. *The Law of Contract in South Africa*. 5th Edition. Durban: Butterworths.
- Concise Oxford English Dictionary. 2004. New York: Oxford University Press.
- Cox, A. 1996. Relational competence and strategic procurement management. *European Journal of Purchasing and Supply Management*, 2(1), pp. 57-70.
- Cox, A. 1997. *Business Success: A Way of Thinking About Strategy, Critical Supply Chain Assets and Operational Best Practice*. UK: Earlsgate Press.
- Cox, A. and Thompson, I. 1998. *Contracting for Business Success*. London: Thomas Telford.
- Cox, A. and Townsend, S. 1998. *Strategic Procurement in Construction*. London: Thomas Telford.
- de Wet, J.C. and van Wyk, A.H. 1978. *Die Suid-Afrikaanse Kontraktereg en Handelsreg*. 4th ed. Durban: Butterworth.
- Department of Environmental Affairs and Tourism. 1997. *The Identification under Section 21 of Activities which may have a Substantial Detrimental Effect on the Environment*. Notice No. 1182, Government Gazette No. 18261, 5th September, Government Printer, Pretoria.
- Department of Labour. 2003. *Incorporation of Safety Standards in the Construction Regulations 2003*. Regulation 1020, Government Gazette No. 25207, 18th July 2003, Government Printer, Pretoria.
- Drewer, S.P. 1975. *The construction industry in developing countries: a framework for planning*. Report. London: University College London, Building Economics Research Unit, April.
- Edmunds, G.A. and Miles, D.W.J. 1984. *Foundations for Change: Aspects of the Construction Industry in Developing Countries*. London: Intermediate Technology Publications.
- Edwards, M. 2003. *Qualitative Research Methods*. Module Guide for Postgraduate Diploma/Masters in Public Health, PHCA8006 (ver3). Australia, Adelaide: Flinders University .
- Edwards, P.J. 2001. *A Study of Risk Perceptions And Communication In Risk Management For Construction Projects*. Unpublished PhD Thesis, South Africa: University of Cape Town.

FIDIC Contract. 1999. Federation Internationale des Ingenieurs Conseils. Switzerland : Lausanne.

Finsen, E. 2005. *The Building Contract: A Commentary on the JBCC Building Agreements*. South Africa: Juta.

Franks, J. 1984. *Building Procurement Systems*. UK: The Chartered Institute of Building.

General Conditions of Contract for Works of Civil Engineering Construction (GCC). 2002. South African Institution of Civil Engineers.

Gladwin, T.N., Krause, T.S., and Kennelly, J.J. 1995. Beyond eco-efficiency: towards socially sustainable business. *Sustainable Development*, 30(1), pp. 35-43.

Green, S. 1994. Sociological paradigms and building procurement. In: Rowlinson, S.M. (ed.) *East meets West: proceedings of CIB W92 Procurement Systems Symposium*, University of Hong Kong, Hong Kong, CIB publication 175, pp. 89-97.

Hamilton, A. 2001. *Managing projects for success'* (a trilogy). London: Thomas Telford Ltd.

Hibberd, P. 1991. Key factors in procurement. In: *Procurement Systems Symposium*, Las Palmas, Gran Canaria, Spain, CIB publication N1 145, Chapter 8.

Hill, R.C. and Bowen, P.A. 1997. Sustainable construction: principles and a framework for attainment. *Construction Management and Economics*, 15(3), pp. 223-239.

Hill, R.C., Pienaar, J., Bowen, P.A., Küsel, K. and Kuiper, S. 2002. The transition to sustainability in the planning, construction and management of the built environment in South Africa. *Special Issue of the International Journal of Environmental Technology and Management*, 2(1-3), pp. 200-224.

Hosten, W.J., Edwards, A.B., Nathan, C. and Bosman, F. 1983. *Introduction to South African Law and Legal Theory*. Durban: Butterworth.

International Organization for Standardization (ISO) (1995) *ISO 14001 Environmental Management Systems – Specification with Guidance for Use*. Geneva, Switzerland: ISO Secretariat.

International Union for the Conservation of Nature and Natural Resources (IUCN) 1980. *World Conservation Strategy*. Gland, Switzerland.

JBCC Adjudication Rules. 2005. Joint Building Contracts Committee, Series 2000, Code 2109, March.

JBCC Minor Works Agreement. 2005. Joint Building Contracts Committee, Series 2000, Edition 3.0, Code 2108, September.

JBCC Nominated / Selected Subcontract Agreement. 2005. Joint Building Contracts Committee, Series 2000, Edition 4.1, Code 2102, March.

JBCC Preliminaries. 2005. Joint Building Contracts Committee, Series 2000, Code 2103, May.

JBCC Principal Building Agreement. 2005. Joint Building Contracts Committee, Series 2000, Edition 4.1, Code 2101, March.

Jennings, I. and Kenley, R. 1996. The social factor of project organization. In: Taylor, R. (ed.) *North Meets South: proceedings of CIB W92 Procurement Systems Symposium*, University of Natal, Durban, Part 2, pp. 239-250.

Kumaraswamy, M. and Dissanayaka, S.M. 1998. Linking procurement systems to project priorities. *Building Research and Information*, 26(4), pp. 223-238.

Lenard, D. and Mohsini, R. 1998. Recommendations from the organizational workshop, In: C.H. Davidson (ed.) *Procurement – the way forward: Proceedings of CIB W92 Montréal Conference*, Université de Montréal, Montréal, CIB publication 203, pp.79-81.

Longman Dictionary of Contemporary. English. 1991. UK: Longman Group.

Love, P.E.D. and Skitmore, M. 1996. Construction project delivery systems: an analysis of selection weighting criteria. In: Taylor, R. (ed.) *North Meets South: proceedings of CIB W92 Procurement Systems Symposium*, University of Natal, Durban, Part 2, pp. 329-342.

Masterman, J.W.E. 1997. *An Introduction to Building Procurement Systems*. London: E and FN Spon.

Murray, M.D. and Langford, D.A. 1998. Construction procurement systems: a linkage with project organizational models, in *Proceedings of the 14th ARCOM Conference*, Reading, UK, pp. 544-552.

NEC3 Engineering and Construction Contract. 2005. UK: Thomas Telford, London. June.

Ofori, G. 1980. *The construction industries of developing countries: the applicability of existing theories and strategies for their improvements and lessons for the future: the case of Ghana*. Unpublished PhD thesis, London: University College, Bartlett School of Architecture and Planning.

Ofori, G. 1996. Linking project procurement to construction industry development: the case of Singapore, R.G. Taylor (ed.) *CIB W92 'North meets South' Procurement Systems Symposium Proceedings*, University of Natal, Durban, Part 2, pp. 473-482.

Ofori, G. 1998. Sustainable construction: principles and a framework for attainment – comment. *Construction Management and Economics*, 16(2), pp. 141-145.

Republic of South Africa: Government Gazette. 1962. *Conventional Penalties Act*. Act No. 15 of 1962, Government Printer, Pretoria.

Republic of South Africa: Government Gazette. 1965. *Arbitration Act*. Act No. 42 of 1965, Government Printer, Pretoria.

Republic of South Africa: Government Gazette. 1989. *Environment Conservation Act*. Act No. 73 of 1989, Government Printer, Pretoria.

Republic of South Africa: Government Gazette. 1993. *Occupational Health and Safety Act*. Act No. 85 of 1993, Government Printer, Pretoria.

Republic of South Africa: Government Gazette. 2006. *Constitution of the Republic of South Africa*. Act No. 108 of 1996, Government Printer, Pretoria.

Richards, P., Bowen, P.A., Root, D.S. and Akintoye, A. 2005. Client strategic objectives: the impact of choice of construction contract on project delivery. *Construction Law Journal*, 21(7), pp.473-492.

Root, D. and Hancock, M. 1996. Familiarity and Procurement Preference. In: Katavic, M. (ed.) *Economic Management of Innovation, Productivity and Quality in Construction*, Proceedings of CIB W-55 Symposium, Zagreb, Croatia Vol. 2, pp.523-535.

Rowlinson, S. and McDermott, P. 1999. *Procurement Systems: A Guide to Best Practice in Construction*. London: E and FN Spon.

Rwelamila, P.D. 1996. *Quality Management in the Public Building Construction Process*. Unpublished PhD Thesis, South Africa: University of Cape Town.

Rwelamila, P.D. and Hall, K.A. 1994. An inadequate traditional procurement system? Where do we go from here?, In: Rowlinson, S.M. (ed.) *East meets West: proceedings of CIB W92 Procurement Systems Symposium*, Hong Kong: University of Hong Kong, CIB publication 175, pp.107-114.

Rwelamila, P.D. and Meyer, C. 1996. *Procurement and Balancing Project Parameters in Botswana and South Africa*. Unpublished Report, South Africa: University of Cape Town, Department of Construction Economics and Management.

Sharif, A. and Morledge, R. 1994. A functional approach to modelling procurement systems internationally and the identification of necessary support frameworks. In: Rowlinson, S.M. (ed.) *East meets West: proceedings of CIB W92 Procurement Systems Symposium*, University of Hong Kong, Hong Kong, CIB publication 175, pp. 295-305.

Solow, R. 1993. An Almost Practical Step to Sustainability, reviewed in *Resources*, 110, Resources for the Future, 1616 P Street, NW, Washington, DC 20036-1400.

South African Bureau of Standards (SABS) 1993. *Code of Practice Environmental Management Systems SABS 0251*. South Africa, Pretoria: SABS.

Stevens, A.J. 2001. *The concept of risk and uncertainty*. University of Cape Town, Department of Construction Economics and Management: Project Management Postgraduate Programme.

United States General Accounting Office (GAO). 1990. *Case Study Evaluations*. Program Evaluation and Methodology Division, GAO/PEMD-91-10.1.9, USA.

Wells, J. 1986. *The Construction Industry in Developing Countries: Alternative Strategies for Development*. London: Croom Helm, Andover, Hants.

Yin, R.K. 1994. *Case Study Research - Design and Methods*. London: Sage Publications.

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