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Editorial

Dear Sri Lankan Quantity Surveyors,

The last editorial stressed the dedication of the SLQS Committee to play its role in helping the SLQS membership to fulfill their duties as members of a learned society. With going forward, 18 CPD events had been conducted within the year 2011 and duly benchmarked KPI of the CPD Sub-committee. The Editorial Committee also believes that our relatively young SLQS-Journal was able to shed some light on your search for the path to best practice.

In this issue, contributions come from all over the world; Sri Lanka, Qatar, Oman, and the United Arab Emirates. We are delighted to publish Millan de Silva’s ‘Knowledge, Experience, Excellence - A Cost Consultant’s Perspective’, a sharing of his experience over the years, Dhammika Ekanayake’s simplified version of a sensitive topic ‘Professional Negligence in the Construction Industry’ adding value to this edition. We are also pleased to note some useful contributions of Nadeera Nenatungai his article on ‘Open Book Accounting through a Collaborative Approach: is it a Timely Requirement?’ and Harshani Gunathilake’s ‘Provision for the Nominated Subcontractors, Objection from the Main Contractor for Nomination under the Construction Contract and Solutions to the Engineer’. Don Halakoon from a legal perspective and Sampath Preethikumara from a contractual one are printing their view of ‘Extension of Time in Construction Contracts’ and Chulika P. Dasanayake’s discussion in ‘Value Engineering Vs. Cost Cutting’ is touching upon some of the mis-concepts existing within the construction industry. Saman Liyanage joined the journal through the management avenue and we are sure that the SLQS readers will have the benefit of receiving the shared knowledge of many SLQS members who recently graduated with their MBA from the University of Sri Jayewardenepura.

Those with sharp eyes may have observed that two new names, Mr. Nishantha Fernando and Mr. Munju Sri Adikari, appeared under the editorial committee next to the last member to join, Mr. Prasanna Pushpajith. In our next issue, you will read more about the concerns over FIDIC 99 from Prof. Samaratunga and more on alternative dispute resolution methods.

On a closing note, we ask all our readers to recall that this journal is your property. As such, its performance is indeed your concern and all feedback and articles are not only appreciated, but an active part of being a member of the SLQS and the construction community. Furthermore, we believe that the SLQS Committee has made arrangements within their 2012 agenda to improve service to our local membership, partly through becoming more receptive to feedback from our innovative young membership, which can later be transformed into constructive proposals and new resolutions within the group.

We anticipate your academic pleasure and hope that you assist us in ensuring it for future readers as well, by providing high-quality articles of your own for the forthcoming editions of SLQS-Journals.

Editorial Committee
Value Engineering Vs. Cost Cutting

Chulika. P. Dasanayake’s B.Sc. (QS) Hons, MRICS

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Value engineering is a common topic of discussion and application in the construction industry. Generally, the application of value engineering strategies starts at the concept level design of a project in the pre-contract stage. Most of the people think value engineering applies only to the pre-contract stage. But value engineering can be applied in the post-contract stage as well. When it applies to the post-contract stage, certain contractual issues arise. In this case, if the value engineering option is proposed from contractor’s side, any cost saving on this value engineering proposal has to be shared between client and contractor both. If any proposal comes from the consultant, it will be a variation to the contract. For these reasons, the application of value engineering is comparatively less in the post-contract stage than in the pre-contract stage of the project.

Most consultants including designers and cost consultants do value engineering exercises without a clear understanding of the concept of value engineering. They mostly apply various types of cost cutting strategies instead of value engineering strategies. A cost consultant must have a clear understanding and ability to identify value engineering and cost cutting applications separately.

Value engineering is a part of value management and is defined in several ways. Simply and clearly it can be defined as: “Value engineering is a systematic approach to delivering the required functions to the required quality at the least cost”, i.e., it is a method of ensuring that the client gets the best possible value for money in terms of safety, performance and delivery targets. It is a structured form of consensus decision making that compares and assesses the design solutions against the value systems declared by the client. Further, value engineering is defined as: “Eliminating unnecessary costs without compromising functional or aesthetical requirements”. We can identify the value as a ratio of function / cost. Hence, optimisation of value means increased function or decreased cost. As quantity surveyors or cost consultants, we have to provide guidance to achieve the best functional requirements with relevant quality at least cost. This should be a coalesced assessment with a particular design team and a corporate decision, not of an individual.

But cost cutting strategy is completely different from value engineering. In this case, people try to achieve minimum functional requirements at the least cost without considering aesthetical or quality requirements. The reason for this is incorrect budget limit produced and convinced to the clients with initial design. The most common practice in the United Arab Emirates (UAE) is for the designer to provide the budget with his design, without any consultation with a cost consultant in the initial stage. When the design goes to the cost consultant at a later stage, he will produce a correct cost estimate for the design and in most cases the result will be a budget over run. In this situation, clients are not happy or do not have the capacity to increase their budget limits but still expect the same requirement within his budget limit. Because of an inaccurate picture already deposited in his mind the client expects to achieve the same. When the excess budget amount is very high, it is not possible to achieve the client’s requirements through value engineering applications alone. Then designer will come up with cost reduction strategies to achieve the client’s budget by providing minimum functionality. It can be an area reduction or alternative material of low quality and low price, etc. This also is commonly identified as value engineering in the current industry. But it is just a cost cutting exercise only.

Value engineering and cost cutting strategies can be further explained with practical examples as given below.
An enormous budget overrun was identified in one of the hotel projects at the schematic design level. It was around AED 150 million. But client still wanted to achieve his basic requirements (a five star resort hotel with 200 guest rooms) within the budget previously set out. In this case several value engineering workshops and exercises were concluded. Finally, an AED 90 million cost reduction was achieved through a value engineering exercise for hotel finishes. Direct imported material from specific US, German and Italian suppliers were specified for finishes by the architect in the contract. This involved a major cost portion of the estimate. Hence, by doing further studies and detailed cost comparison between direct imported material and locally available high quality material, it was possible to achieve a cost reduction of AED 90 million. For this exercise, it was necessary to collect and compare quotations and material samples from local suppliers to match the architect’s specifications. It was difficult but achievable. Hence our value engineering exercise was successful. In this case, it was possible to achieve the required functionality without sacrificing quality or aesthetic appearance and at least cost. Hence, this is a complete value engineering exercise.

Still there was an AED 60 million budget overrun and it was not possible to achieve the target with several value engineering options. Thus, the design team and cost consultant had to do more studies to meet the client’s budget requirement. There were several options to achieve this target and several discussions, workshops and negotiations were held to finalize the most suitable option. Finally, accepted all team members including the designer, cost consultant, client, and hotel operator agreed on an on-grade simple structured car park instead of a basement car park. There was a three level basement car park with around 750 parking spaces and this basement car park had been designed without any structure on its ground floor slab (also to function as a roof slab of the car park). It was covered by landscape and located in front of the main hotel building connected through access corridors internally. It could achieve the total required AED 60 million cost reduction by replacing this basement car park with an on-grade simple structured car park. In this exercise the functional requirement was achieved as required but quality and aesthetical appearance were definitely compromised. There would be no visibility to the hotel users, if the initially designed basement car park remained. But the on-grade car park is visible to the hotel users, even though designer designed it with a roof garden and reasonable landscaping surrounding this car park. Hotel users would be more pleased with a basement car park designed with simple decorated wall finishes than with an on-grade car park without such finishes. Hence mainly fulfilling functional requirements but without consideration for quality and aesthetical requirements cannot be accepted as a value engineering exercise but only as a cost cutting exercise.

As quantity surveyors, it is very important for us to understand the main differences between value engineering and cost cutting and to correct the common misconception among professionals in the construction industry. We can reduce cost cutting by following a proper cost planning process at each design stage of the pre-contract. It is very important to prepare a correct budget or cost limit at the beginning with a clear understanding of the client’s brief. Then it will help to achieve the client’s requirements within the budget without going for cost cutting but only applying value engineering if necessary at the later stages.

An addition, we need to take into account the life cycle cost (whole life cost) of the proposed options in both value engineering and cost cutting. Some of the alternative options proposed in both techniques have a visible significant reduction of initial cost but it could result in higher running and maintenance costs. Therefore, it is advisable to carry out value engineering and/or cost cutting exercise to achieve optimum benefits of both applications.
Knowledge, Experience, Excellence … …A Cost Consultant’s Perspective

Millan De Silva
Millan De Silva is the Chief Executive Officer of Milcris Pvt. Ltd., a Sri Lankan Chartered Quantity Surveying Company with offices in Oman and Sri Lanka. He was the Director QS of the multi billion U.S. Dollar Muscat & Salalah International Airports development projects in Oman.

Our profession upholds righteousness, impartiality and professional ethics among many other important social attributes acclaimed as hallmarks of our community and society. Over the past century and half, in this ever changing world, we have seen our profession evolving from a simple ‘quantity calculator’ or ‘estimator’ to a more complex role, and an integral part of the global construction industry. Cost consultancy or cost management has grown and keeps growing not only as a profession, but also as a vital and inherent part of the developing world. Whether one is a consultant’s QS, contractor’s QS, or client’s QS, we see knowledge, experience and excellence as the three key components, which play a significant role in the growth and expansion of this noble profession.

One’s basic education, understanding of the socio economic needs of society, the methodologies of the profession, the ethics and norms of the industry are synonymous with knowledge. Understanding the clients’ business processes, their operating environment, and the challenges they face are important in our profession. This means that we integrate ourselves with all aspects which have a financial impact on the business model – at inception, during delivery, on completion and through the assets life. We are actually an extended part of the client’s organization to control the commercial and contractual impact on the delivery of their projects. Taking-off measurements and preparation of a BoQ will not make a QS a complete cost consultant. Identifying and understanding the client’s needs and working to achieve them are implicit requirements of our profession. The wide array of the quantity surveyors’ responsibilities means they have to be educated, trained, and highly skilled in diverse subjects. They have to keep abreast of the new technologies and ‘happenings’ around the world. The skills required by our clients are ever changing and we must recognize the importance of continuous professional development. The changing nature of the construction and development industry such as the adoption of innovative technological processes and development, the emergence of highly focused professionals and the full range of advanced technologies will necessitate a much stronger emphasis on job competencies than ever before. Hence, the importance of knowledge is vital and an essential ingredient.

It is a fact that each project is different from another. The many needs of the client always vary from one project to another and depend on the procurement route. We find ourselves working along more and more complex procurement routes. The increase in complexity would naturally increase the demand on our services and that in turn widens our knowledge base and highlights the factor which we refer to as experience. To provide effective assistance to value engineering exercises, to ensure a realistic price for a development, and to provide the architect with more cost efficient design options are simple examples of the need for such experience. A diverse blend of things in the industry will always serve us well and elevate our careers to the next higher level.

It is also of paramount importance that we provide our clients with a superior level of service, which they deserve and expect. We must apply best practice and innovation to ensure that we deliver best value for money. Quality and timely delivery of our services are the key hallmarks of our profession. We, as cost consultants, must consistently maintain high standards of professionalism and pay attention to quality of service, which underlies all our operations.

Another important aspect is competency. That is the ability to perform well at professional level that involves the accomplishment of a certain task or dealing with a
problem in a manner that could be observed and judged by others. That is to say, a competent professional is capable of applying the necessary expertise in confluence with effective behavior. That is the true meaning of excellence.

Despite being recognized as a professional discipline distinct from architecture and civil engineering since the 17th century, and the wide spectrum of services that are performed by the cost consultant, quantity surveyors lack due recognition in construction projects and are not immune to the threats and changes in their operating environment. Notably, the clients are not making adequate utilization of this profession and we have seen the cost consultant being appointed as a sub consultant to a lead-consultant, who in turn reports to the client. At times, the advice of the quantity surveyor are not conveyed to the client in the same context as conveyed by the QS and some parties in the construction industry have been critical of the quality of works and services provided by quantity surveyors. Some even question the importance of appointing quantity surveyors as project consultants. By being in closer touch with day-to-day operations, the QS have the capacity to lead any project. Moreover, the QSs will be better equipped to provide adequate feedback on documentation provided for tender purposes, thus reducing the uncertainty placed on the developer who must carry the burden of construction contingency and risk.

Even though the cost consultant is the ‘cost controller’ of the project on whom the employer relies for maintaining a budget surplus, unfortunately many quantity surveyors fail to fulfill this obligation and become cost reporters instead of cost managers either because they are not provided with the opportunity by the lead consultant or are content with the lesser responsibility. Now the time has come for quantity surveyors to identify the role of a successful cost consultant and gain knowledge and experience in the specialized disciplines to convince the clients of the value of both the cost management and the cost consultant.

The QS is more capable of providing better budgetary options in the post and precontract phases when design deficiencies need to be resolved. In performing that task, the QS reduces the load of the design and the project management teams.

The benefits of this illustrious profession could be very beneficial to all clients from feasibility, through project delivery to completion and through the asset’s life cycle. It is a matter for regret that the construction industry does not fully harness those areas.

Because of these challenges, we as a profession need to regroup and take stock of the whole situation to educate the general public and our esteemed clients on the actual role of the cost consultant. Through greater communication with other industry professionals, a better motivated approach to management and becoming more involved in the process of the profession with greater exposure within the planning and construction process, it is possible for the cost consultant’s profession to spread the message and bring awareness among our clients.

**Viking Grain Storage v T H White Installation (1980)**

The contract concerned the supply of grain silos. The grain developed mould whilst stored, due to inadequate ventilation.

Held that the defendants were liable for not providing goods fit for their purpose.
Professional Negligence in the Construction Industry

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Introduction
Negligence, in tort law, may be defined as the failure to act reasonably or breach of a duty of care, owed by one party to another.

A person’s status within a trade or profession means that he has to achieve higher standards than others, in the sense of displaying skill as well as care. Where a person acts in accordance with what is the generally accepted practice of his profession, he is unlikely to be found negligent, although there have been occasions on which a court has declared such common practice to be unreasonable. A person who holds himself out as having a particular skill or profession must attain the standard of the reasonably competent man exercising that skill or profession. The level of skill demanded, however, will vary according to the extent of the risk.

Negligence
Negligence can be defined as “the failure to use reasonable care” or “the doing of something which a reasonably prudent person would not do”.

Elements of negligence
In an event of negligence, the claimant has to prove the following which are known as “Elements of Negligence”:

a) The defendant must have owed the claimant a duty of care,
b) The defendant must have breached that duty in some way,
c) By doing so the defendant caused damage to the claimant, and,
d) That damage is verifiable.

Duty of Care
Duty of care is a requirement that a person act toward others and the public with watchfulness, attention, caution and prudence that a reasonable person in the circumstances would. If a person’s actions do not meet this standard of care, then the acts are considered negligent, and any damages resulting may be claimed in a lawsuit for negligence.

Case: Donoghue Vs Stevenson [1932]

- Mrs. Donoghue had gone to a café with a friend. A friend bought her a bottle of ginger beer.
- The bottle was of the opaque type and contained a decomposed snail, but nobody knew about it.
- As a result of drinking it, being shocked at the sight of the snail, she was absent from work with gastroenteritis and shock.

Before her lawyers would risk pursuing the case on the facts, they ask the court to rule on whether, if they proved the facts, the case would be successful. It was decided that if the case proceeds and the facts were proved, Mrs. Donoghue would succeed. Subsequently, the case was never tried on the facts.

Standard of care
Standard of care is “the watchfulness, attention, caution and prudence that a reasonable person in the circumstances would exercise”. If a person’s actions do not meet this standard of care, then it fails to meet the duty of care which all people (supposedly) have toward others. Failure to meet the standard is negligence, and any damages resulting there from may be claimed in a lawsuit by the injured party.

Strict liability
Strict liability is the legal responsibility for damages, or injury, even if the person found strictly liable was not at fault or negligent.
Case: Rylands Vs Fletcher [1868]

- The defendant had a reservoir built on his land by reputable engineers and with the necessary permission.
- During the work the contractor came across an old mine which they sealed off.
- When the reservoir was filled, the water entered the old mine shaft and flooded the plaintiff’s coals mine on the adjoining land.

Court held that defendant is liable for the damages.

Special rule of evidence

This situation occurs where the claimant doesn’t know how the incident took place.

Res Ipsa Loquitur

Claimant has the right to transfer the burden of proof to the defendant, who then has either to admit or prove that there was no negligence.

Professional negligence

Professional negligence is an act or misconduct also called malpractice where professionals fail to exercise their duties effectively and which results in damages to clients. It can be due to negligence, ignorance or intentionally. It cannot be proved just by the client unless it is very obvious but a legal declaration has to be made by an expert of the same profession that the professional failed to meet the basic standards while performing the act.

Professional negligence differs from ordinary negligence, because of its admissibility of evidence as to knowledge of the profession.

1.7 Standard of care required by a professional

As a consequence of being more highly skilled, professionals are held to a higher standard and are expected to be able to complete tasks related to their training in a competent way. Failure to exercise due caution is considered negligence and clients can sue for damages if they have been injured as a result of negligent care.

Professional Negligence in the Construction Industry

Duty of Care

In the case of personal or physical injury, reasonable foreseeable ability of harm is usually sufficient to give rise to a duty of care. However, many construction cases involve claims for economic loss and in such circumstances the test is less straightforward because of limitations driven by policy considerations. An additional complicating factor in construction cases is the contractual matrix which has a significant effect on the scope of any duty of care.

There may be situations where there are no established practices such as where a new construction technique is used. In such cases, the duty of care may be discharged by taking the best advice available and by warning the employer of any risk involved.

Case: Greaves contractors Vs Baynham Meikle [1975]

An Engineer designed a structure subject to vibrating loads. But it was not adequately designed to resist the loads.

Court held that by considering the knowledge of the engineer he was liable to pay damages.

Liability for work done

Liability for economic loss in negligence seems to vary between jurisdictions. Economic loss may be recoverable by either a negligent misstatement or if the jurisdiction allows recovery through existing case law.

A person taking on a work in connection with the provision of a dwelling will generally become liable for not doing it in a proper manner.

Case: Dutton Vs Bogner Reg’s UDC [1972]

Claimant purchased a house built on the site of a rubbish tip. Then he sues the builder and local authority that approved the plans and inspected the work on site. In this case, the builder was liable and there is nothing unfair in holding the council’s surveyor liable.

Negligent supervision

Negligent supervision is a tort that may apply in various contexts such as supervision of employees, children, or
adults. Negligent supervision is a variant of the common law tort of negligence; therefore, breach of duty is proven in the same way as other negligence cases. In some instances, it is described as whether a reasonable person could have foreseen that injuries of the type suffered would likely occur under the circumstances.

Failing to discover the defects is a breach of their duty to the building owner. (Liable in an action for negligence). Sufficient inspection has to be done on important items, especially of those which will be covered by later work.

*Case: Jameson Vs Simon [1899]*

Engineer failed to inspect the bottoming of floors and the floor was found to be defective.

Court held that there may be things which the engineer cannot be expected to observe while they are being done. But as regards so substantial and important a matter as the bottoming of a cement floor of a considerable area, it cannot hold that he is not chargeable with negligence, if he fails to inspect such things before being hidden from view.

**Negligent administration**

There are various functions to perform by the quantity surveyor, and engineer. Issuing certificates, variation orders, instructions, drawings, etc... In such cases instructions must be carefully distinguish.

*Case: Simplex Vs St. Pancas B.C [1958].*

A contractor quoted for installation of piles for specified capacity. It has been discovered that this is impracticable and contractor offered alternatives with differently priced schemes. engineer accepted one of these options with quotations submitted.

Court held that although the contractor would have been liable for the failure of the first scheme, the engineer's acceptance of the alternative amounted to a variation. The contractor was therefore entitled to be paid the price of the alternative and not the (lower) price originally tendered.

**Delegation of work**

Delegation means assigning a certain task to other persons providing proper authorization keeping in mind it should be effective and result-oriented.

However, the person who delegated the work remains accountable for the outcome of the delegated work. Delegation empowers a subordinate to make decisions.

*Case: Moresk Cleaners Vs Hicks [1966]*

If a building owner contracts with an engineer to design a building, then he can look to the engineer to see that the building is properly designed. The engineer has no implied power to avoid his own liability by delegating this duty of design to qualified/specialist contractors (*Moresk Cleaners Ltd v Hicks [1966]*).

**Negligent misstatements**

A negligent misstatement is representation of fact, carelessly made, which is relied on by the claimant to his disadvantage.

*Case: Esso Petroleum Vs Mardon [1976]*

Mr Mardon was buying a petrol station, franchised by Esso Petroleum Co. Ltd. Esso told him they had estimated that the throughput of a petrol station, would be 200,000 gallons a year. However, the Local Council made a decision on planning permission so there would be no direct access from the main street. That meant fewer customers. But Esso still told Mr Mardon the estimated throughput was 200,000. Mr Mardon bought the petrol station and the business did not go well. From 1964, Mr Mardon negotiated a lower rent with Esso. He still put money in but lost a lot. Esso then brought an action for possession against Mr Mardon. He counterclaimed for damages of Esso's breach of warranty or negligence Court held that, a man who has or professes to have special knowledge or skill negligently gives unsound advice, misleading information or expresses any erroneous opinion and thereby induces the other side to enter into a contract with him, he is liable in damages.

**Negligent certification**

For a contractor to receive the final payment for his work on a construction project, the engineer must certify that the work has been completed and it has been done satisfactorily. An engineer's negligent certification can have substantial ramifications, with owners, contractors, and sureties all potentially having claims against him.
Leicester Board of Guardians v Trollope (1911)

The clerk of works altered the design of a floor and as a result dry rot broke out in the floors some four years after completion. It was alleged that the defect arose owing to the negligence of the architect in not seeing that the concrete was properly laid in accordance with the contract. The architect denied that it was his duty to supervise the laying of the concrete and that this was the duty of the clerk of works who had been appointed by the Guardians.

It was held that while it was the duty of the clerk of works to supervise the details of the work, the laying of a floor such as this could not be regarded as a detail and that, therefore, the architect was liable in negligence.

Case: Sutcliffe Vs Thackrah and others [1974]

An engineer gave an interim certificate, including the works not executed. The contractor has been over paid for the work.

In this case the engineer was held liable for his negligence.

Keeping up with changes

Law assumes that the building team have a continuous educational process. That means the engineer should be aware of changes in methods of construction and the use of the materials. So, all professionals must have a practical knowledge of law relating to their profession.

Summary

Construction professionals, as with other professionals, are liable to their clients and third parties for damage and loss caused by the professional's negligence. As the starting point in any professional negligence claim is to consider whether the losses are recoverable in contract. However, liability in professional negligence becomes important where the contractual route is unavailable: It could arise from commercial transactions resulting in no direct contractual relationship between the parties, where one of the parties has become insolvent or where the limitation period in contract has expired.

Not every careless act or fault gives rise to liability in negligence, even where damage is sustained by another as a result. In order to establish a claim in negligence, it is necessary for a claimant to satisfy the following requirements:

- The existence in law of a duty of care,
- Behaviour that falls below the standard of care imposed by law,
- A causal connection between the defendant's conduct and the damage, and,
- Damage falling within the scope of the duty.

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How to Present an Efficient and Perfect Presentation on Critical Analysis at RICS APC Interview

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In the RICS APC journey and in the final (Assessment of Professional Competencies) APC interview the critical analysis report plays a very important role. The success of an APC interview very much depends on the critical analysis report and its presentation. One of the main reasons for failing the APC interview is the improper selection of the issue which is to be critically analyzed and poor presentation.

The critical analysis presentation provides an opportunity to candidates to prove his/her skills and knowledge to the APC assessors. Such skills are communication skills, presentation skills, analytical skills, and time management skills. The candidate also could show his self-confidence and strong personality and leadership qualities at this presentation. Knowledge would primarily be covered under the core/technical competencies. It is an APC requirement that the candidate conduct a presentation on critical analysis. The candidate may have prepared answers for several questions but is not certain whether and some of them could be asked or not by the panel members may ask any of those questions but the presentation is the only one that the candidate will definitely be asked to do and which he/she has already prepared and rehearsed. As the critical analysis presentation creates the first impression which the candidate gives to the panel, it should be an attractive presentation to satisfy all of the panel members at the very inception of the APC interview.

Generally, the following criteria are considered in assessing a critical analysis presentation:

1. Time management – Presenting the critical analysis within the time stipulated by the APC process, i.e., 10 minutes will prove a candidate’s efficient time management skill and how he/she will be capable enough of efficiently and successfully managing time when he/she undertakes an individual task in his/her professional life. The allocated time for a presentation is only 10 minutes. However, 30 seconds less or more than 10 minutes is acceptable by most of the assessors. A shorter or longer presentation may not meet the requirement of an ideal presentation evaluation criteria. The candidate can keep a stop watch with him to manage time. Also, the panel chairman will notify at the ninth minute of the presentation.

2. Eye contact – Proper eye contact with panel members will prove a candidate’s self-confidence to the panel members. Never talk to walls and tables. Keep the attention of your audience (Assessors) with you throughout the presentation (or in a public speech). Eye contact shall be kept uniformly with all the panel members, not only with the chairman of the panel.

3. Body language – The candidate should use suitable and limited body languages to add more validity and to emphasize his arguments of the issue. Body language also shows the candidate’s relaxation in the presentation and self-confidence.

4. Using a Flip Chart – It is not compulsory to use a flip chart in the presentation. Doing presentation with a flip chart enhances the quality of the presentation in the following three ways:

- Having a flip chart in the presentation will help to present a well-structured presentation and link the topics one by one without missing any important topic.
- If the panel members did not properly understand
the candidate’s particular words/ sentences or the candidate did not properly convey a word/ sentence/ idea, the panel members will pick it up from the flip chart. It eliminates unnecessary ambiguities in the presentation.

- If the candidate forgets any words or sections of the presentation, he can get recall his ideas by referring to the flip chart.

The flip chart is only a guide for the presentation and keeping looking at it and reading page by page should be avoided. An ideal flip chart may have 9 to 11 pages with bullets points, graphs and very short sentences.

In conclusion, all of the above criteria can be met by practising the presentation with proper guidance. Getting advice and guidance from qualified and experienced people will be helpful to do an excellent and efficient presentation.

Today is not too early to start practising your presentation! Practice again and again will wash out your nervousness and shyness!!

“Practice makes perfect”

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**Tiffney v Flynn**

The mother of a man who was killed when the car in which he was a passenger was involved in a road traffic accident raised an action of damages seeking declarator that, in terms of the 1999 uninsured drivers agreement between the Motor Insurers’ Bureau and the Secretary of State for the Environment, Transport and the Regions, the former were liable to satisfy any decree pronounced against the driver of the vehicle in the event it became an unsatisfied judgment. The driver was neither insured nor held a licence, and had admitted liability. The bureau submitted that (1) “claimant” in the 1999 agreement had to mean the person in respect of whose death the claim was brought and the pursuer’s construction made no sense and involved absurdity where a distinction was drawn between bereaved persons who knew of the lack of insurance and who were in the car at the time of the accident who would not be entitled to recover, and bereaved persons who knew of the lack of insurance and who were not in the car at the time of the accident who would be entitled to recover; (2) it had always been the case in Scots law that a plea that could be taken against the deceased could be taken against a relative but the relatives could never recover unless the deceased, had he lived, could have done so; (3) the mere change of words between the 1988 agreement and the 1999 agreement where cl.6.1(e) of the former referred to “the person suffering death” and cl.6.1(e) of the latter referred to “claimant” did not demonstrate that any change of meaning was intended. The action came to proof before answer restricted to the question of the bureau’s liability under the agreement.

Application granted. (1) The word “claimant” in the 1999 agreement, when seen in context, did not have the meaning contended for by the second defender. The pursuer was the claimant in the present case and there was nothing absurd or wrong with that conclusion. (2) The main purpose of the agreement was to guarantee that the victim would not remain without compensation and while this was a fatal claim, the pursuer was a victim. The fact remained that the deceased could have recovered from the driver had he lived. In any event, the pursuer was suing as an individual rather than as executrix on behalf of her son’s estate. (3) There was a clear change of wording between the 1988 agreement and the 1999 agreement: the second defenders were inviting the court to rewrite the 1999 agreement but it could not be accepted that only the words had changed and not the meaning; on a proper construction, the pursuer was entitled to the declarator she sought.
Open Book Accounting Through Collaborative Approach. Is it a Timely

Nadeera Nenatunga BSc(Hons), NDES, AMIIE(SL)

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In this article the author briefly introduces the open book accounting, which is used in a collaborative approach. Also, he points out that the benefits of those methods can be further extended when those arrangements are incorporated into an integrated supply chain. In general, most construction projects that follow traditional procurement methods are finished late, are over budget, are of poor quality, involve costly disputes, and unhappy clients, etc. For these reasons, the clients are in doubt whether they would obtain value for money while the contractors also are in doubt whether they would be paid a fair valuation for the work done, in addition to the greater risk and uncertainty associated with traditional arrangements. These concerns make negative impacts on both parties when they engage in new projects, especially in current market conditions and economic downturn.

When the traditional forms of contracts are taken into account, most probably, the employer tries to throw the majority of the risk factors on to the contractor’s shoulders. As a result, tender prices are unnecessarily increased due to contractors being loaded with allowances to cover up the losses if any. If the risk is unpredictable (uncertainty) to the contractor, then they might charge allowances in excess of the actual loss. And also, generally, the traditional forms of contracts are used as a weapon by the contractors (as a means of claiming what they are entitled to). Meanwhile, the clients use the same as a shield (as a mechanism to make sure they get what they have paid for). Therefore, most probably, what actually happens is that one party loses while the other party wins. This confrontational situation has been prevented by partnering or collaborative approaches, leading to the introduction of new forms of contracts such as PPC 200, NEC 3, JCT 05 Constructing Excellence, etc. Typical characteristics of the partnering arrangements are non-confrontational language, an emphasis on procedures, not remedies, for breach, issues of “good faith”, inclusion of measures of performance, etc. This can be made much clearer with the following comparisons:

<table>
<thead>
<tr>
<th>Comparisons between the two concepts</th>
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<tbody>
<tr>
<td><strong>Traditional</strong></td>
</tr>
<tr>
<td>Adversarial relationships</td>
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<tr>
<td>Arms-length relationship</td>
</tr>
<tr>
<td>Rigid design specifications</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Arbitration or litigation</td>
</tr>
<tr>
<td>Lowest tender</td>
</tr>
<tr>
<td>Apportion blame for problems</td>
</tr>
<tr>
<td>Commercial secrecy</td>
</tr>
</tbody>
</table>
Open-book accounting

As can be seen from the above table, one of the important characteristics in collaborative contractual arrangement is open book accounting instead of commercial secrecy in traditional arrangements. In open book accounting, basically the client (or his representative) is permitted access to the contractor's accounts. In this case, “...the contractor must operate an accounting regime that provides the client with sufficient financial information to monitor, among other things, the actual costs incurred against target costs; substantiate claims for payments; agree to changes to the target costs to reflect any additions to/deletions from the scope of the contract; access final costing; and consider the impact of innovative proposals.” To fulfill the above requirements, typical open book arrangements include:

- Shared cost savings – (i.e., the contractor is rewarded for suggesting any genuine savings in the design or construction methods);
- Financial incentive for meeting key performance indicators (KPIs) – (e.g. a bonus payment for completion on time with an increase for early completion);
- Agreement of a target cost incorporated into a pain/gain contract. (i.e., the contractor shares either the pain or the gain in the event that the actual cost of the project exceeds or is less than the target cost.)

As there is no stranded procedure to follow, the open book accounting process depends on the contractual arrangement, the agreement between the parties, etc. A simplified process can be illustrated as below:

1. Agree the outline brief for the project and decide on an open book approach
2. Select contractors to tender
3. Receive tenders and appoint the most suitable contractor
4. Pre-contract design period and value engineering process including the involvement of the contractor
5. Agree target cost and formalize the contract documents
6. Agree procedure for the recording and auditing of costs
7. Contractor commences the work and maintains records, all in accordance with the agreed procedure
8. Employer’s quantity surveyor (QS) undertakes audits at regular intervals in accordance with the agreement
Some the important points, terms and steps of the open book accounting process have been further explained below;

**Actual cost:**
“This is the value of the completed project based upon the sum of the prime cost items plus either a fixed allowance or a percentage addition” (please note that the precise definition of actual cost can be varied depending on the form of contract.)

**Target cost:**
“This is similar to the contract sum in a traditional type of contract and can be adjusted during construction phase, in accordance with the agreed terms and conditions as a result of unforeseen circumstances, changes incorporated by the client, or any other matter for which the client retains responsibility”.

**Pain/gain share:**
At the end of the project the actual cost will be compared with the target cost and if any difference then it is shared with the client and the contractor as per the pre-agreed portion which is often 50/50. If the actual cost exceeds the target cost then there is an overspent and the relevant portion will be deducted from the contractor’s final payment. This is referred to as pain share. If the actual cost is less than the target price then it’s a saving and the relevant portion will be added to the contractor’s final payment, which is gain share. This concept can be illustrated graphically as follows;

<table>
<thead>
<tr>
<th>Contractor produces documentation for interim valuations (monthly) which are checked by the QS as part of the audit procedures and forms the basis for interim payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract completed and work certified as being satisfactory by the architect or contract administrator</td>
</tr>
<tr>
<td>Final account prepared by contractor, incorporating all the source documentation to provide evidence of the costs</td>
</tr>
<tr>
<td>QS undertakes final audit of contractor’s records, examining those documents necessary to confirm the true prime cost for the project</td>
</tr>
<tr>
<td>Contractor and QS negotiate the final actual cost which will be the sum total of the prime costs less any disallowed costs and subject to addition for any percentage or fixed price allowance agreed in the contract to achieve the actual cost</td>
</tr>
<tr>
<td>The actual cost is compared to the target cost and my differences (pain or gain) are shared (as detailed in the contract) and incorporated into the final account. This revised value, plus the amount of any incentive payments, would be the final value due to the contractor</td>
</tr>
</tbody>
</table>
Disallowed costs:
In the open book accounting process, all the costs incurred by the contractor are not passed for payment, which are called ‘disallowed costs’. However, as with actual cost, the definition of ‘disallowed costs’ varies depending on the form of contract. Generally, the costs fall into the following categories are considered as disallowed costs:

- Costs not substantiated (e.g., there is not sufficient records, extra payments to subcontractors of which the employer has no prior knowledge, etc.)
- Costs overpaid (e.g., when the hiring plants should have been off hired at an earlier date, payments to subcontractors in respect of delays, cost of overhead items which are included in the percentage or fixed price addition, etc.)
- Costs relating to the correction of defects (e.g., rectification cost of defective works/ workmanship, subcontractors works not in accordance with the contract/specification, damage due to inadequate protection of installed materials, etc.)
- Costs not related to providing the works (e.g., over ordering or incorrect ordering of materials, excessive wastage on site, ordering and using the wrong mechanical plant, rectifying damage to adjacent properties, etc.)

Contractor’s accounting system
The contractor should record all the expenditures using a coding system to suit organisational requirements. A simple coding system may consist of company code, project code, cost element code (labour, plant, material, subcontractors, etc.) and building element code (for providing more sophisticated details). In this case, computerised systems are being effectively used in the industry. However, there should be a clear understanding to separate out project specific costs (i.e., direct costs) and head office overheads (i.e., relating to company as a whole) since head office overheads are shown separately in the company accounts. Also, it is a must to have knowledge of the items, which are included as percentage/ fixed price and the items fall under direct (prime) cost.

Assessing the actual costs (auditing)
Another important phase of open book accounting is verifying the actual cost incurred in the works, which were carried out by the contractor. Generally, the audit procedure is established and agreed on at the inception and the parties may agree to an open book protocol, which includes audit rationale, persons entitled to be present during audit, reference to contract clauses, procedures, etc.
In this case, the client’s quantity surveyor should have a thorough understanding of contractor’s accounting systems to enable separating out the disallowed cost (which is also included in the contractor’s system as they are applicable to the contractor). In this case, while avoiding the disallowed costs, to ascertain the true cost of the applicable items, usually, it is adequate for the client’s quantity surveyor to examine the relevant evidence listed under each of the cost elements.

**Labour**
- Contracts of employment
- Weekly time sheets or clock cards certified by the site manager
- Payroll records including the calculation of statutory payment

**Labour-only subcontractors**
- Contracts of appointment
- Weekly time sheets or piecework details as certified by the site manager
- Remittance advice to the subcontractor

**Plant – external**
- Enquiries and quotations from hirers
- Official orders
- Site delivery notes – on/off site
- Weekly plant sheets certified by the site manager
- Invoices from hirer
- Statement from hirer which should give details of all payments

**Plant – internal**
- Site delivery note on/off site
- Weekly plant sheets certified by site manager
- Details of comparative commercial hire rates

**Materials – purchased**
- Enquiries and quotations from potential suppliers
- Copy of official orders detailing description, quantity, price, etc. and indicating that the material is for the chosen project
- Delivery notes/tickets from suppliers either certified as correct by the site manager or indicating shortages and breakages
- Weekly goods received sheets completed by the site manager detailing all the materials delivered each week
- Copies of correspondence concerning queries relating to materials
- Evidence of payment

**Materials – ex-contractor’s stock**
- Details of all internal requisitions (internal orders)
- Internal delivery notes/tickets either certified as correct by the site manager or indicating shortages and breakages
- Normally indicated in separate section In weekly materials sheets
- Details of internal cost charges and evidence of similar commercial prices

**Site staff and supervision**
- Copy of contracts of employment
- Details of the allocation sheets completed by each operative and certified as correct by their line manager
- Payroll records including the calculation of statutory payment
- Details of staff expenses with accompanying receipts and certified by their line manager

**Agency staff**
- Copy of contracts and orders
- Record sheets completed by staff member giving brief details of their work undertaken and certified by the site manager
- Invoices from agency
- Proof of payment

**Site overheads**
- This will not be straightforward and will contain many items where their components can be classified as other cost elements (e.g., site hoarding may involve labour, plant and materials) and the evidence will therefore be similar to that needed for each individual element.

**Subcontractors**
- A collaborative appointment by contractor and employer but nevertheless the following will be needed:
  - subcontractor’s enquiries and quotations
  - details of all correspondence between subcontractor and contractor
  - subcontract documentation
  - subcontractor applications
  - calculation for adjustment of subcontract values
  - evidence of payment.
Overheads

- Access to the calculations in respect of the contractor’s overheads to ensure that there is no duplication between what is included in these overheads and what is a true direct (prime) cost relating to the project.

It can be seen from the above list that the employer’s quantity surveyor should have the necessary skill and knowledge to audit the contractor’s records and to identify and calculate the correct sums to be paid. To carry out the process successfully, the employer’s QS should have the knowledge and skill in the following areas:

- Construction technology and methods – to make sure that the contractor carrying out the works in an efficient manner, etc.;
- Construction industry- to ensure that the contractor efficiently selects and appoints the subcontractors and suppliers, etc.;
- Contractual – to understand the obligations of each party, etc.;
- Commercial - to understand the market prices and to ensure that the client obtains value for money, etc.;
- Accounts– basic understanding of contractor’s account system and accruals, head office overhead, other expenditures, etc;
- Organisational & audit - to ensure the availability of up-to-date records and file them in a logical manner and also to make the employer aware of the latest financial status, etc;
- Forecasting - ability to forecast the final outcome (extrapolating the current cost) with reasonable accuracy, etc. ;
- Interrelationship - to ensure a greater degree of transparency to meet the common goals, etc.; and also he/she should be a good team player.

To gain the advantages and benefits of open book accounting, all the parties should always co-operate with one another frankly and honestly. Even then, there is a possibility of problems occurring as a result of various reasons. Some of such problems could arise due to incorrect definitions (such as ‘prime cost’, how additional costs to labour are to be paid (holidays, statutory sick pay, maternity payments, provision for redundancy)), and also due to wrong allocation of costs. These problems can be overcome at the pre contract stage by identifying them and correctly defining/specifying the terms with the understanding of both parties. Another potential problem is inadequate records. This will make it difficult to certify the correct cost. To avoid this, the contractor should maintain comprehensive and contemporary records. And also, both parties must be aware that human errors can also occur.

Most probably the problems cannot be limited to the above. Therefore, whenever the parties come across any problem, corrective action should be taken immediately.

The above problems are genuine problems for which solutions can be found with the mutual understanding of the parties by following the principles of open book accounting. However, there may be unscrupulous firms, which try to manipulate the system to gain additional benefits. The client’s QS should be aware of such manipulations and identify them as well. Some of them could be:

- Wrong labour allocation (allocating the full cost of labour but some of them actually work for different contractor),
- Duplication of costs (charging as direct cost, but it is already included in the percentage or fixed price),
- Over ordering the materials and transferring them to separate projects without appropriate deductions,
- Transferring the surplus materials elsewhere without issuing any credit to the Client,
- Hiding of credit notes/ discounts,
- Changing the internal rates,
- Collusive pricing (contractor colludes with a supplier or subcontractor to artificially inflate the price to be charged to the client and share any excess profits between themselves).

In addition to the above, there could also be problems due to organisational matters, strategic matters, cultural matters, etc.

By looking at the procedures to be followed and the potential problems, one could argue that this kind of partnering poses great risk and uncertainty to the client while others argue that it’s a risk to the contractor to expose all his commercial secrecy to the clients and he has to play a vital role in the process. Therefore, they would come to a decision that this would not come to effect. However, it should be understood that all these difficulties could be overcome by properly administrating and managing the system with a competent team. The client is the one who should manage and lead the team.
Also both the client and the contractor can gain benefits if they are involved in the process with mutual trust and understanding. These benefits can be further extended when an integrated supply chain is incorporated into the overall process. This enables all the parties to work together in an integrated and collaborative manner, which will lead to:

- All the team members have mutual understanding of each other’s goals,
- Deliver measurable added value,
- Deliver projects in conformity with appropriate quality, time and budget whilst reflecting best value,
- Create excellence in supply chain partnering,
- Adopt best practice techniques and encourage innovation.
- Create a supply chain based on honesty, trust and respect for each other.
- Create a culture of mutual benefit both financially and of continuous improvement for the businesses and the workforces.
- Resolve all issues at the lowest level and in a timely manner.
- Provide a safe, challenging, enjoyable working environment that enhances all parties’ goals and delivers defect free solutions time after time.
- Share knowledge.

While client and contractor enjoy the above benefits with all the parties they can have their own individual benefits, which can be outlined as follows:

Benefits to the client individually:
- System gives them better control of time, quality and good cost control,
- Same contractor(s) can be used for future projects and can maintain a shortlist of firms while dropping the poor performers,
- Since the contractor is appointed at an early stage, contractor’s knowledge and skills can be incorporated from the design stage,
- Unlike in traditional contracts, in this method there is less risk and uncertainty to the contractor; therefore, the client can save a considerable amount of money (which contractors make as allowance in their tender if it’s a traditional procurement),
- Can be satisfied that he is paying a fair and reasonable price in relation to the quality of work executed, ensuring value for money.

Benefits to the contractor individually:
- Can expect fair valuation for their works,
- Can get incentives when he promotes value engineered solutions to problems (if any genuine savings are achieved),
- When compared to the traditional arrangements the contractor benefits from either case of overspending or saving (since pain is also shared with the client).

By identifying the advantages and benefits of the collaborative approach and open book accounting, some countries like the UK already have put these arrangements into practice. The author believes that the rest of the world will also do the same in the near future since this would be effectively used especially in current market conditions. Therefore, incorporating open book accounting through a collaborative approach to the construction industry can be identified as a timely requirement. In this context, as mentioned earlier, quantity surveyors have a major role to play. However, to fit the purpose, employers would look for quantity surveyors with overall knowledge and skill in the industry.

References:
Sub-Clause 44.1: Interpretation

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Abstract
Sub-clause 44.1 in the fourth edition of Conditions of Contracts for Works of Civil Engineering Construction prepared by Federation Internationale des Ingenieurs Conseils (FIDIC) is widely used in construction contracts. The sub-clause intends to facilitate the contractual mechanism to deal with Extension of Time (EoT). Lack of understanding and interpretation of the sub-clause content is often seen in the industry. Thus it is worthwhile to review it repeatedly until the industry thoroughly interprets the real content of the sub-clause.

This article reviews sub-clause 44.1. An interpretation of the sub-clause 44.1 and relevant sub-clauses are discussed while considering examples to interpret the real intention and simplify the clauses for the purpose of clarity of understanding.

Key words: sub-clause 44.1, EoT, FIDIC

Introduction
Under any provision of a Contract all the parties to the Contract should acquire their rights while carrying out their liabilities. The Contractor’s obligation is to commence and continue with the Works pursuant to sub-clause 41.1 and to complete the Works within the time for completion under sub-clause 43.1. If the Contractor delays the completion by the due date, relief to the employer is determined (Liquidated damages) pursuant to sub-clause 47.1.

If delays are not caused by the Contractor, relief is determined under sub-clause 44.1 [and etc?] (extension of time and prolongation costs). Almost 10% of sub-clauses out of 210 sub-clauses in the FIDIC 4th edition are related to the provision of extension of time and prolongation cost while 22 sub-clauses in the Contract from which entitlement to EoT are inferred and 21 sub-clauses in the Contract from which entitlement to prolongation costs are inferred.

Even though there are 22 sub-clauses relevant to EoT, there is only a single clause in the Contract under which the Contractor is entitled to an extension of time, which is sub-clause 44.1. In the event of occurrence of below events, an EoT could be granted as a relief to the Contractor.

Extra or additional work Sub-clause 44.1 - (a)
In the event of the amount or nature of extra/ additional work instructed sub-clause 44.1 (a) provide the provision to infer EoT. In case of 12 lamp post has been instructed to be erected instead of 10 or a swimming pool has been instructed to built additional to the original Scope of Works, it is considered as additional work while any work extra to the original Scope is considered as extra work under this sub-clause. This can be a change of an existing item such as changing floor tiling material to granite from marble. Such a change requires more cost and time if they are to be imported.

However, merely because of an extra or additional work happens the Contractor is not going to get an extension of time. If the amount or nature has caused the delay then an EoT can be granted. In terms of amount for a 50 km road work an additional 10m may not cause a delay, if it is instructed in a timely manner. But if the additional amount is 4 or 5 km, such amount is significant and may cause a delay. In case of 10 or 15m has been instructed on the last day of the project, it falls under nature unless it is instructed in a timely manner. Any additional works need for hand excavation instead of mechanical excavation falls under nature.
If variations instructed by the Engineer pursuant to sub-clause 51.1: Extra or additional work included in the Engineer's Instructions for adjustment of ambiguities in the Contract Documents: sub-clause 5.2, Extra or additional work included in any supplementary drawing or instruction: sub-clause 7.1, Extra or additional work included in Engineer's Instructions pursuant to sub-clause 13.1 and under sub-clause 18.1, an EoT can be inferred pursuant to sub-clause 44.1 (a).

Varied works such as setting-out errors which are instructed to be rectified, that have been done based on incorrect data supplied in writing by the Engineer: sub-clause 17.1, loss or damage from Employer's risks (which are instructed to be rectified): sub-clause 20.3, Engineer's Instructions to provide facilities to the Employer or to others employed by the Employer: sub-clause 31.2, Engineer's Instructions (issued before the substantial completion of the works) to remedy defects, shrinkages or other faults (for which the Contractor is not liable) as a result of search pursuant to sub-clause 50.1, sub-clause 49.3, destruction or damage from special risks (which are instructed to be replaced or rectified), sub-clause 65.3 also falls under sub-clause 44.1 (a) where an EoT can be granted.

As the varied works and variations are priced under sub-clause 52.2 in the occurrence of an above event the Contractor is entitled to have cost and his profit as relief.

Engineer's Instructions (issued before the substantial completion of the works) to search, where any outcome is other than a liability of the Contractor under sub-clause 50.1 and Engineer's Instructions to uncover, make openings in or through, reinstate and make good any part of the works, where such part is found to be executed in accordance with the Contract under sub-clause 38.2 also provide the provision to determine an EoT under sub-clause 44.1 (b).

Causes of delays referred sub-clause 44.1 - (b)
Seven sub-clauses were identified as causes of delays (referred to these conditions, stated in or inferred from that particular Clause/ sub-clause) out of 210 sub-clauses and can be dealt with straight forwardly as they are expressly stated and already there in the book.

In a situation where the Engineer's failure/ inability to issue any drawing or Instruction: sub-clause 6.4 an existence of Physical obstructions or conditions not foreseeable by an experienced Contractor, sub-clause 12.2 Engineer's Instructions for dealing with fossils, sub-clause 27.1 Tests required by the Engineer pursuant to Clause 36, sub-clause 36.5, Engineer's Instructions to suspend the progress of the Works or part thereof, sub-clause 40.2, Failure on the part of the Employer to give possession of site, sub-clause 42.2, Suspension of work and/ or reduction of the rate of work by the Contractor due to Employer's default as referred to in Clause 69, sub-clause 69.4 may lead to determine an EoT under sub-clause 44.1 (b).

Climatic conditions sub-clause 44.1 -(c)
Exceptionally adverse climatic conditions have been addressed under sub-clause 44.1 (c) and provisions have been provided to grant an EoT under this clause as well. The climatic conditions have to be exceptional (out of ordinary) such as extreme cold, fog, snow, heat wave, high temperature. They have to be investigated in terms of intensity, frequency, and duration and relevant past record to be obtained from the authorized authorities. Merely exceptional climatic conditions are not adequate and they must be adverse to the Works. A ceiling contractor working inside a building will not be affected adversely by heavy rain outside and will not be entitled to acquire an EoT. This is the only provision in the Contract, which refers to delay from climatic conditions as Clause 12 excludes climatic conditions.

By the Employer sub-clause 44.1 - (d)
In a situation where any delay, impediment or prevention by the Employer, provision has been made to grant extension of time under sub-clause 44.1 (d). Impediment means obstruction by the employer or people for whom the Employer is responsible like the Engineer. Any delay by the Employer such as supply delay of materials by the Employer and prevention by the Employer in the way of not giving possession of the site may fall under this category. However, some of them can be categorized as sub-clause 44.1 (d). Consequently any delay caused by others employed by the Employer pursuant to sub-clause 31.1 and delay in nominating or replacing a nominated Sub-contractor by the Employer/ Engineer pursuant to sub-clause 59.1 can be determined under sub-clause 44.1 (d).

Special circumstances sub-clause 44.1 - (e)
Other special circumstances, such as US president's visit to Dubai in year 2008 which caused closing down almost
all the construction projects in Dubai for security reasons, other than through a default of or breach of Contract by the Contractor or for which he is responsible has got provision to obtain EoT under sub-clause 44.1 (e). However if it is a Contractor’s fault or for which he is responsible like a sub-contractor, EoT will not be granted.

**Conclusion**

It is understood that for the delays for which the Employer is responsible, the Contractor is entitled to receive EoT and prolongation cost and profit in some scenarios as discussed in the article above. Whereas for the delays, for which the contractor is responsible the Employer is entitled to Liquidated Damages as a relief. And for the delays for which both parties are not responsible, EoT is granted to the contractor and neither party is entitled to recover any cost and it is said that* lost lies where it falls.

As Clause 44 deals only with extension of time, it does not have provisions, which entitle a Contractor to any additional payments. Entitlement to additional payment shall be as stated in or inferred from the other Clauses of the Contract. However, if a Contractor is entitled to an extension of time in the event of exceptionally adverse climatic conditions under sub-clause 44.1(c), an entitlement to any additional payment has not been provided under any of the other clauses. Events which can be considered under sub-clause 44.1 (b) and (d) provide provisions to grant Cost as relief to the Contractor along with extension of time.

Sub-clause 44.1 indicates that “Being such as fairly to entitle the Contractor to an extension of time for completion of the Works, or any Section or part thereof, the Engineer shall, after due consultation with the Employer and the Contractor, determine the amount of such extension & shall notify the Contractor accordingly with a copy to the Employer”. If additional works have been instructed due to a default of the Contractor, an EoT will not be granted as the authority has been given to the Engineer to determine fairly that an EoT should be granted or not.

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**Action Strength Ltd v International Glass Engineering**

**Keywords**: Documentary evidence; Estoppel; Guarantees; Oral contracts; Subcontractors

**Summary**: Estoppel; oral contracts; enforceability of oral contract of guarantee under Statute of Frauds 1677.

**Abstract**: “A” has agreed to supply labour to enable “I” to build a factory for G. “A” appealed against a Court decision that that evade the effect of the Statute of Frauds 1677 s.4. A creditor cannot claim that a guarantor should deny from relying on the Statute of Frauds 1677 s.4 by reason of having encouraged the creditor to act to his damage by a promise to pay.

**Held**: Dismissed the appeal, that the oral contract of guarantee between “A” and “G” was not enforceable under s.4 of the 1677 Statute, as a written agreement was required for a contract to be enforceable.
Provisions for Nominated Sub-contractors, Main Contractor’s Objection to the Nomination, and Remedies Available for the Engineer

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Abstract
In order to achieve the project objectives, a nominated subcontractor plays a significant role. The failure of a nominated subcontractor to perform may have serious consequences for both the Employer and the Main Contractor. It is therefore important to the Engineer to ensure that the Main Contractor is prepared to collaborate with him. This article provides the alternative solutions to the Engineer if the Main Contractor raises a reasonable objection for a nomination.

Who is a Nominated Subcontractor?
Nomination is a process by which the employer nominates a party who will perform a specialist trade role under a subcontract with the main contractor (MC) usually for a provisional sum item included in the contract. The nominated subcontractor (NSC) is selected under the provisions of the contract for execution of a specialist work, supply of goods, materials, plant or services. Prior to the nomination is done, it is advisable that the MC should also be informed of the prospective nomination to ensure that there is no reasonable objection. The NSC differs from a domestic subcontractor mainly due to:

a) The tender process is organized and run by the employer who invites suitable subcontractors to submit a tender; and
b) The employer selects the preferred tender and then instructs the MC to enter into a subcontract with the NSC

Benefit of the NSCs
Nomination is more beneficial for the Employer and the intention behind the appointment of the NSC is based on two possible advantages:

a) The Employer can control the choice of the NSC without direct involvement in the contractual arrangement with the NSC; and
b) By such selection, the employer can ensure through direct tendering that a competitive price is obtained for a specialist work.

Similarly, the employer may have developed a long-term business relationship with the NSC and may have proven track records of his good work. Thus, the NSC may offer a lowest bid or highest quality design input or a combination of price and quality. Then the employer can select the most suitable subcontractor for a particular provisional sum item by utilizing his negotiation ability with the NSC.

Once the employer approves, the NSC enters into a subcontract with the MC. Then the MC is permitted to make the profit as specified in the bill of quantities or appendix to tender for the use of the NSC on site. Further, the MC must provide attendance to enable the NSC to do his work. Usually it includes the provision of plant, scaffolding, services (water, electricity, etc.), providing storage, protection of subcontractor’s material and protecting finished work until the project is completed, etc.
Provision under FIDIC 1987 related with MC’s Objection to the Nomination

As per the general practice, once the MC enters into a subcontract with a particular NSC, he becomes a domestic subcontractor for the MC. Due to this reason it is assumed that the MC will be held responsible for the performance of the NSC in achieving Time for Completion of the project. Therefore, it is important to ensure that the MC approves the subcontractor and is prepared to collaborate with him. As per FIDIC 1987 (4th Edition) under Clause 59, it expressly states that the MC shall not be required by the Employer or the Engineer, or be under any obligation to employ any NSC:

a) against whom he may raise a reasonable objection; or
b) any NSC who refuses to enter into a subcontract with the MC:
   • with equivalent obligations and liabilities with the main contract,
   • which indemnifies the MC in respect of the NSC’s breaches, negligence of his workers
   • and the misuse of the MC’s temporary works,

Thus, the MC can refuse the nomination if he has reasonable grounds for so doing. What is “reasonable” must take account of the importance of the timing of the nomination, the effect a post-contract nomination may have on the MC’s programme, and NSC’s preparedness to commit to completion of its work on the date as per the programme. The possibility of the MC not accepting the NSC because of bad work experience, which they have had with the NSC in a previous project could not also be ruled out.

Solutions to the Engineer for Main Contractor’s Objection to the Nomination

Once the MC objects to the nomination on a reasonable ground and refuses to enter into a subcontract with the NSC as discussed above, it may directly affect project progress. Thereby, it would delay the project ultimately, which will result in the extension of time (EoT) and delay in the Employer receiving income. Thus, it is the Engineer’s responsibility to find an alternative way to resolve the matter without any delay to achieve the Time for Completion and avoid any EoT.

As per the above scenario, the Engineer will have several options open to him. He can:

a) Negotiate and seek more favorable subcontract terms with the MC and the NSC,
b) Nominate the second lowest tenderer to whom the MC would not object.
c) Omit the work from the main contract and employ a direct contractor employed by the Employer with the MC’s consent,
d) Instruct the MC to carry out the work under the Contract,
e) Implement a combination of the above options in order to suit a particular scenario.

Negotiate and seek more favorable subcontract terms with the MC and the NSC

This option has the following positive features:

- If the MC can agree with the NSC with more favourable contractual terms through negotiation, he can stick with the programme, as no delay will take place;
- Since the MC can carry out the works with same NSC, no extra time and cost will arise for the consideration of any alternative options.

However, it will be a risk that, if the negotiation fails between the MC and the NSC, yet another option should be considered. Then the time for negotiation will also considerably delay the project.

Nominate the second lowest tenderer to whom the MC would not object

If it fails to achieve an acceptable situation through negotiation for the original nomination, it is beneficial to select the second lowest tenderer. Although it eliminates obtaining the most competitive price, this option offers the following advantages:

- The main contractor can stick with the programme, as no delay will be caused in the nomination process,
- No extra time and cost will arise for the consideration of any alternative options.
Omit the work from the main contract and employ a direct contractor employed by the Employer with the MC’s consent

This option is subject to getting the MC’s consent to omit the work from the main contract. However, the MC might come up with claims. This option has the following positive features:

• Choose the employer’s most preferential subcontractor,
• The employer may have developed a long-term business relationship with the direct contractor and he may offer a competitive price,
• Since the contractual agreement is made between the employer and the direct contractor the employer is able to include more favorable terms.

On the other hand, this option has the following negative facts as well:

• It is subject to getting the consent of the MC and if he refuses to give his consent to omit such work, yet another option should be considered,
• It will take considerable time for the internal approval process and procedures from the employer,
• In addition to the existing Contract with the MC, the Employer has to sign a further contract with the direct contractor, which increases his responsibility / risk,
• When considering the extent and nature of the direct contractor’s scope of work, it may easily impede the MC’s work. Thus, it would create ground for additional claims.

Instruct the MC to carry out the work under the Contract

This option is based on the Engineer’s instruction under Clause 58.2 (a) of FIDIC 1987 (4th Edition) to the MC to carry out the work under the Contract, which will be valued as a variation under Clause 52. This option has the following positive features:

• Is able to reduce overall procurement time (when compared to the Employer’s internal approval procedure) and early commencement of work,
• Eliminates re-nomination process, and the Employer does not require to pay additional consultancy fees to the Engineer / Cost Consultant if additional resources are incurred,
• The Employer will obtain the benefit of the MC’s previous working relationships with such subcontractors.

However, this option has the following negative features as well:

• Price may not fall within the agreed budget,
• A competitive price may not be obtained as the MC will arrange quotations from his preferred subcontractors,
• There is less control over the price owing to limited involvement of the Employer / Cost Consultant in direct negotiations,
• As per the agreed percentage for overhead & profit for Variations and Provisional Sums, the Employer may incur an additional cost. (According to the general practice, the adjustment percentage for Variation is higher than the Provisional Sum items.)
• The Engineer’s consent is required for the new subcontractor’s approval.

A combination of the above in order to suit a particular scenario

Implementing a combination of the above options together always provides a smart solution in practice. By way of an example, splitting into sub-packages and assigning possible work to the MC, which is critical for completing and selecting a new subcontractor(s) for the non-critical work would be a pragmatic solution in a particular scenario.

How can the Employer / Engineer overcome the MC’s Objection?

It is obvious that the MC’s reasonable objection to the original nomination may create serious consequences for a project and its progress. Hence, it is essential to take proactive measures to eliminate the MC’s objection when nominating a subcontractor for a special trade. For that reason, it is always recommended that when selecting the MC, he should be given the list of subcontractors who will be invited to tender for particular Provisional Sum items under which they become “Named Contractors” under the Contract. The said list can be included as a separate annexure under the Particular Specification.

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Extension of Time Clause in construction contracts

As we are aware, almost all standard forms of building contracts do provide extension of time (EoT) clause. This is primarily in the interests of the employer. At first sight, it appears that the contractor will be the only beneficiary as his liability to pay liquidated damages is reduced. However, the main beneficiary of the EoT clause is the employer. The employer cannot operate liquidated damages provisions, if he cannot grant an extension of time for the portion of delay caused by his default or act. In the event the employer fails to operate the extension of time clause, the time will become at large and liquidated provision will fail. In addition to this, there are neutral events, which are not due to the fault of any contracting party, that can cause delay in a project. As per the standard practice, extension of time should be granted in respect of such delays and normally prolongation cost will not be entertained thus sharing the risk between the parties. In the event of absence of construal provisions to grant extension of time for neutral events or any force majeure occurrences, the contract may lead to frustrated situations. Therefore, another purpose of the extension of time clause is to prevent the contract drifting to frustrated situations.

In consideration of the above, the extension of time clause serves mainly two purposes:

1. To preserve the liquidated damages provision.
2. To prevent the contract being frustrated entering into a time at large situation

Common law prevention principle

The common law principle is that if a party is prevented by the refusal of the other contracting party from completion of the contract within the stipulated time limit he is not liable in law for default.

The applicability of the prevention principle has become problematic for contract administrators and adjudicators because of the condition of precedent requirements of standard bespoke contracts. Most standard conditions of contract require the contractor to serve notices in respect of any delays caused by the employer or any delay caused by any neutral / force majeure events to grant extension of time. In the event the contractor has failed to serve the notices, the architect / contract administrator cannot grant extension of time as per the condition precedent requirements of the contract which eventually provide a benefit to the employer from his own fault. Various attempts have been made to deal with this paradox (i.e., a statement or proposition that seems self-contradictory or absurd but in reality expresses truth). This basic paradox was broadly discussed in Gaymark Investments V Walter construction Group (1999). In this case, the contract required the contractor to provide notice of delay as a condition precedent to issuing an extension of time, but the contractor failed to do so. Therefore, the arbitrator did not have any contractual authority to issue an extension of time which will eventually provide an opportunity for the employer to deduct liquidated damages from the contractor due to his fault. The arbitrator decided that the contractual mechanism had broken down and decided time at large thus nullifying the contract liquidated damages provisions. The employer appealed
but the arbitrator’s decision was upheld by the High Court of Victoria.

Many attempts have been formulated to resolve this basic paradox of the employer causing the delay and the contractor failing to serve condition precedent notices. The following are the main developments in this regard:

1. To draft the extension of time clause in a more clear / elaborate manner.
2. To broaden the powers of the contract administrator to execute the extension of time clause to benefit both employer and contractor.

The need to comply with the condition precedent requirements to be eligible for an extension of time

Almost all standard bespoke conditions of contract provide certain procedures to follow in respect of any delays caused by the employer / contractor which are in most circumstances condition precedent.

In the recent past we have encountered many cases where the employer has delayed the contractor and in the meantime the contractor has failed to serve the condition precedent notice requirements. In such scenarios, it is clear that both parties have breached at least the spirit of the contract. In such situations the contract administrator is required to look at the severity of each breach and the applicability of the common law principle in favor of the contractor which means no party should benefit from its own default.

This was broadly addressed in City Inns v Shepherd Construction (2010), which is detailed out below. This case was very important because it had addressed many issues in the evaluation of extension of time claims.

1. The correct procedure to assess concurrency in extension of time claims.
2. Applicability of common law principle of prevention in assessment of extension of time claims.

What is concurrent delay?

Concurrent delays occur when a contractor and an employer have both caused independent critical path delays that affect the completion date of the project. The most important features of whether delays are concurrent is that

1. impacts are critical to the project completion;
2. impacts are independent; and
3. the delays are caused by both parties approximately at the same time.

There are various approaches / protocols that have been established by various professional organizations and through various case law developments.

The Society of Construction Law (SCL) has developed a detailed protocol to analyse concurrent delays. This is called the SCL delay and destruction protocol. In most circumstances standard bespoke conditions do not recognize a specific protocol in dealing with concurrent delays. Therefore, in dealing with claims where concurrency has involved parties in dispute / negotiations it may not opt to follow the procedure stipulated in SCL protocol in analysis of an EOT claim since the same has not been agreed on in the contract. However, parties to a disputed claim cannot reject following the general procedure stipulated in case law development. This is why the study of the cases such as City Inns v Shepherd Construction has become so important in understanding the correct procedure in analyzing EOT claims in the context of concurrency and under the influence of common law provisions.

City Inns Vs Shepherd Construction (2010)

This is an important case law because it had focused on several important aspects such as the common law principle of prevention in EOT claims and assessment of overall impact of the concurrent delays.

The Facts

Shepherd was engaged by City Inn to build a hotel in Bristol. The contract incorporated the JCT Standard Form of Building Contract (Private Edition with Quantities) 1980 Edition, with further bespoke amendments. In Clause 25, the contract contained extension of time provisions that were broadly similar to the standard JCT provisions; the architect could award extensions of time where a relevant event had caused or was likely to cause the works to be delayed.

Additional work was given by the employer and the contractor failed to notify the delay. Direct contravention of prevention principle.

It was found that City Inn was responsible for nine causes of delay in the completion of the works (such as late instructions from the architect), with two causes of delay being the responsibility of Shepherd. These causes
for which City Inn was responsible were relevant events under Clause 25.

City Inn employed Shepherd under an amended JCT 80 contract to construct a hotel in Bristol. The project was late in completion and after a series of adjudications, Shepherd were awarded a four-week extension of time by the Architect and a further five weeks by an Adjudicator – nine weeks in total. City Inn were unhappy with the decision of the Adjudicator (and indeed their architect) and raised proceedings in the Commercial Court of the Court of Session seeking various orders including reduction of the Architect’s certificate awarding a four-week extension of time, a declaration that Shepherd were not entitled to a single day of extension of time, and payment of liquidated damages. After some initial legal proceedings regarding whether Clause 13.8 amounted to a penalty, the case proceeded to a proof (i.e., trial) before the Lords.

City Inn argued that Shepherd were not entitled to any extension of time, due to the concurrency of the delays caused by both parties.

What is the correct approach to be taken when awarding extension of time for concurrent delays under Clause 25? In this case the court put forward five propositions in the assessment of concurrent delays:

1. It must be established that a relevant event has occurred and is a cause of delay, and that completion of the works is likely to be delayed or has been delayed by that relevant event;
2. Whether the relevant event has had or will have any causative effect is a question of fact to be determined by common sense;
3. In deciding whether the relevant event has caused delay, the architect can consider any factual evidence he considers acceptable. A critical path analysis is not essential;
4. If a dominant cause can be identified as the cause of a particular delay, effect will be given to that by leaving out of account any causes which are not material. Therefore, in those circumstances, the success of an extension of time claim will depend on whether the dominant cause is a relevant event; and
5. Where a situation exists in which two causes are operative, and one is a relevant event and the other is caused by the contractor, and neither can be described as a dominant cause, it will be open to the architect to approach the issue in a fair and reasonable way to apportion the delay between the causes.

In conclusion, the following summary can be ascertained from the decision of City Inns Vs Shepherd Construction:

1. “Common sense” preferred to “philosophical principles of causation”;
2. Critical path analysis is not essential to demonstrate entitlement,
3. Dominant cause of delay may be given effect to where concurrency can be shown,
4. Apportionment of delay is a valid approach where there are competing causes of delay, none of which are dominant,
5. The Contract Administrator should use his common sense and approach the decision in a fair and reasonable manner,
6. The Contract Administrator should not focus on the chronology of the event,
7. The use of common law principle of prevention in EOT assessments.

Bibliography

Important information is contained in the following web sites:
3. Revision notes provided by College of Estate Management for Construction Law module in the academic year 2011.
How Terms may be Implied in Building Contracts

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The article is mainly based on the implied terms in building contracts. This is followed by a discussion of the available terms in a contract and type of implied terms in a contract. Finally, there is an explanation of how these terms implied into a contract with examples pertinent to building contracts.

Most building contracts are based on standard form of contracts such as JCT, NEC, FIDIC, ICE, etc. which support construction work. The contract documents set out the terms and conditions of how the construction is to be carried out. Also, the duties and obligations of each party are described. These written terms are called express terms in a contract. Apart from these, there are terms which are not written in the contract but are implied rather than stated explicitly in the contract, called implied terms. These implied terms come from four different sources: implied by Statute; implied as a matter of Law; implied as a matter of fact; and implied as custom.

Implied by Statute – These are the terms implied by Statutes. Even though it is not written in the contract, the material for construction works has to be fit for the intended purpose (Griffiths v Peter Conway Ltd (1939) and Viking Grain Storage v. T. H. White Installations Ltd. (1985)). This is written in the Goods and Services Act 1982 as amended by the Sales and Supply of Goods Act 1994. This is discussed in the cases of Rotherham Metropolitan Borough Council v Frank Haslam Milan and Co. Limited and M J Gleeson (Northern) Limited (1996). Further, the goods must be of satisfactory quality (Clegg v Andersson (2003)). Also, the contractor is liable for defective material even though the material specified by the client (Young and Marten Limited v McManus Childs Limited (1969)) (CEM 2002).

Also, according to the Goods and Services Act 1982, s.14 even though the completion time is not specified, completing within a reasonable time is implied in the contract (Charnock v Liverpool Corporation (1968)). A reasonable time is explained in the case of Fisher v Ford (1840).

According to the Housing Grants, Construction and Regeneration Act 1996 (HGCRA 1996), even if the payment terms are not mentioned in the contract, there is a 28-day payment cycle implied in the contract. Also, according to the same Act, if the contract does not specify the payment days, it is implied that the due date for payment is 7 days after the relevant period or after the contractor’s claim date, whichever is later. The final date is 17 days after this due date.

Also according to the National Minimum Wage Act 1998, if the wage rates are not written in the contract, national minimum wages are implied in the contract.

If adjudication provisions are not written in the contract, provisions are impliedly included according to Scheme for Construction Contracts (England and Wales) Regulations Act 1998.

Implied as a matter of Law
These are the things which are conventionally required by the customer practice in a particular area of Law.

Examples:
Some form of contracts have clauses saying (e.g. JCT 05 Clause 3.12) “no payment will be made until written instructions are issued even though the work is completed”. However, under Common Law, the contractor still has a chance to get paid for the work carried out based on an instruction (Molloy v Leibe (1910)).
Work to be completed regularly and diligently
– Some forms of contract include this kind of wording (e.g. - JCT05 Clause 2.4 and ICE 7th Edition Clause 41(2)) (CEM 2002). However, if such a contract has a written time for completion, this wording (regularly and diligently) is sometimes impliedly invalid (West Faulkner Associates v London Borough of Newham (1994)).

If a client supplied material is defective and if it becomes a danger to a person or property, impliedly the contractor is also liable (Lindenberg v Canning (1992); Plant Construction v. Clive Adams & JMH Construction Services (2000)) because the contractor should use his experience and care.

The main contractor should allow the sub-contractor to work reasonably without purposely delaying him (Smith and Montgomery v Johnson Bros. (1954)).

Provide access to the site – Even though it is not written in the contract, it is an implied term giving access to the site to carry out the work regularly and diligently (Milburn Services Limited v United Trading Group (UK) Limited (1995)).

Co-operation by the employer is also an implied term (Allridge (Builder) Limited v Grandactual Limited (1997)).

In this case, when the contractor came in to work, the project was delayed and a number of contractors were working. There was no proper co-ordination between these contractors. Therefore, the court found that co-operation with all contractors was impliedly required by the employer.

Also, the case of London Borough of Merton v. Stanley Hugh Leach Ltd (1985) discussed the requirement of co-operation by the client as it was not written in the JCT 63 form of contract. Further, for the purpose of co-operation the employer can certify the certificate in the absence of the contract administrator (Penwith District Council v. V. P. Developments Ltd (1999)) even though it was not written in JCT63. The same applies in the case of Holland Hannen & Cubitts v. WHTSO (1981).

Pay a reasonable price – If the work is outside the scope, the contractor is entitled to be paid a reasonable price based on current market rates (ACT Construction v E Clarke & Son (Coaches) Ltd. (2002)).

Variation claim for work necessary to complete the work– If the work is understood to be included in the scope of work, the contractor cannot claim as a variation (Williams v Fitzmaurice (1958)) and (Sharpe v San Paulo Brazilian Railway Company (1873)). However the architect does not have the power to instruct variations (Cooper v Langdon (1841)).

According to the Labour Law in UAE, it is compulsory to give a mid-day break during the summer though it is not written in the contract (Morrison. N. 2009).

Implied as a matter of fact
There are terms which are not written but assumed to be included. When mistakes occur, one or both parties may think what the obvious thing to do is. This is a much more difficult situation even though the court has power to imply the terms in to the contract. In practice, for commercial bargains they are very reluctant to do it (Trollope & Colls v NW Met. Hospital Board (1973)).

In this case, a hospital was to be built in three phases and the contract said, “Phase 03 should commence 6 months after completion of Phase 01. Phase 03 completion date was fixed. Phase 01 had extension of time clauses but Phase 03 did not. Then Phase 03 was delayed due to late completion of Phase 01. However, the court refused to give extension of time for Phase 03.

Also, this can be seen in the case of Bruno Zornow (Builders) v Beechcroft Dev. (1989)

In this case, due to poor drafting of the contract, the completion date was not clear. Thus, the judge refused to imply the sectional completion terms in the contract even though it was clear from the evidence.

Even though it is understood to be enough, as a matter of fact the possession should be to the whole of the land, not part of the land (Freeman & Son v. Hensleg (1900) and (Rapid Building Group Ltd v. Ealing Family Housing Association Ltd (1984)).

In conclusion, there are two types of terms in a contract, namely, express and implied. The implied terms are...
mainly derived from Statute, as a matter of Law and as a matter of fact. However, terms implied as a matter of fact are more problematic than other types of implied terms.

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Sauter Automation Ltd v Goodman (Mechanical Services) Ltd (1840)

A sub-contractor’s quotation was expressed as ‘subject to our standard terms and conditions’ which included a retention of title clause. The main Contractor sent an order stating ‘terms and conditions in accordance with the main contract’. The Sub-contractor, without further communication, delivered the goods.

Held that this amounted to an acceptance by them of the main Contractor’s counter offer.
Strategy and Strategic Management Process in the Context of Contemporary Built Environment

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Strategy and Strategic Management

In order to ensure improvement of business performance ‘strategy’ is being adopted in organizations. Generally, it does reflect vision, mission, goals and objectives of the organization where the organization is directed to achieve desired goals in the form of outcome. Strategic management is the managerial involvement of the people who steer an organization’s vision to ensure driving the set strategies to achieve the desired objectives and ultimate goals. It is almost a lengthy history that has passed in defining strategy. Strategy has been defined in various ways from its origin in the ancient Athenian military word ‘Strategia’ – the art of war (Feurer, R and Chaharbaghi, K 1997,p59) The idea was to keep the troops always vigilant in order to prevent enemy attacks. The interpretation of the concept in the business context means to defeat competitors and grow within the market to improve market share.

Strategic management is an identified management process which drives and directs the organization towards its desired goals. Further, it formulates the development of procedures and allocation of resources according to a strategic management plan in an effective and efficient manner to ensure the organization can reach its desired destination. In order to implement strategic processes successfully, the desired strategy should suit the organization’s resource limits and the organization should be capable enough of adapting to environmental and market changes.

This essay identifies and analyzes the concept of ‘strategy’ and ‘strategy process’ based on different theories of strategies and identifies what is to be considered as strategy and strategy process. Further, it emphasizes the strategy process, which ‘strategy’ can be extruded and formulated from the thoughts and studies of disparate schools of thoughts. In conclusion, it highlights possible ways to analyze and establish a suitable strategy process to formulate ‘strategy’, which can be adopted in the organizations within the current contemporary built environment.

Concepts of strategy in the context of disparate schools of thoughts

There are a number of definitions in the literature of strategy. For several decades researchers were keen to identify and characterize the nature of strategy. In the early stages, (Chandler 1962) defined strategy as “determination of organizational long-term goals and objectives and adaptation of courses of actions and allocation of required resources” to execute goals. This is a more individualistic concept than the collective idea.

[AFTER several endeavours, Mintzberg, Ahlstrand and Lampell (1998) established ‘a gathering of schools of thoughts’, namely, design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental and configurational and tried to analyze based on ‘how’ the strategy formation can be drawn from the type and behaviour of each organization’s internal cultures and ‘how the organization is playing with similar organizations (competitors) within the external environment, and determined each organization can be categorized to fall different nature of schools in the context of strategy formation. This long sentence is too difficult for me to understand] Its core can be the focus which, seeks key characteristics to determine ‘How the strategy has been shaped with the nature of its embedded organizational characteristics? Mintzberg further
described those schools of thoughts as being capable of being categorized according to its nature as “prescriptive” and “descriptive”.

However, identifying and analysing the concept of strategy and strategy formation is a limitless process in the face of the dynamic changes in the industry revolution. In a recent interpretation of the concept of strategy, it is described as a ‘management’s game plan to grow’ (Thompson, A, A Strickland, A J, Gamble, E J and Jain A K 2006, p3). “A company’s strategy is management’s game plan for the business, staking out a market position, attracting and pleasing customers, competing successfully, conducting operations, and achieving targeted objectives”. This is a collective concept to achieve strategy and is much more open to both internal and external environments of an organization. However, in every derivation theory of strategy, the ultimate objective is to drive the organization to achieve its desired goals.

Why different thoughts of strategies do ‘not fit’ successfully with organizations within the built environment

The time has come to analyze and evaluate why different definitions of strategies do not very well fit with organizations in the industry and drive them towards the desired objectives? Strategy has been formulated and given a variety of definitions by various professionals and institutions from diverse disciplines depending upon the nature of the business, history, operating market and environmental conditions, etc. Davies (2000) argues that definitions of ‘strategy’ by various schools have complicated the definition in an irresponsible manner.

(Altman, G. 2000, p45) questioned “Are these ideas relevant today?” He describes and critiques, some organizations’ management as short sighted and working without understanding and analyzing what type of strategy is to be adopted to ensure the long run of the business and its strategic objectives. The majority of schools of thoughts tried to understand the complexities of strategic process but, if organizations can use the tools and analytical processes, which can identify and analyze opportunities that exist within the internal and external environment, the tendency for them to collapse is reduced.

Shape of strategy and strategic management process to be considered

Reviewing different schools of thoughts and analyzing the core of their game plans it is very clear that it is better to define strategy and strategic process so that it is suitable, feasible and acceptable in rapidly changing environment and market conditions. The organization’s strategy has to be properly communicated to each individual horizontally and vertically and its links have to be passed to top and bottom supply chains links together to ensure strengthening the product or services to make all stakeholders happy. It can be considered as more suited to achieving set objectives and targets as set out in the concept of balance scorecard applications. Organizations’ overall vision has to be fully blended with overall perspectives -financial, customer, internal, learning and growth (Kaplan, R S and Norton, D P, 2001) and with controllable objectives, targets and measurements. Further, the process of strategy should be well provided with feedback to ensure continuous development. (Deming 1982, p177) describes customer feedback as very advantageous for prospective changes in product design and delivery (Walker D H T .2000, p18).

Identification and analysis of strategy process in general

By reviewing and analyzing different thoughts in general, the strategy process can be mapped in mainly four different phases: strategic analysis, formulation, implementation, and feedback. Further, the process can be mapped as Table I shows by numbering to ensure the flow of the strategy process. Each element can be measured with identified tools with due consideration of key factors. The organizational ‘strategy’ is the ultimate outcome of the strategy formation process over a period of time (Junnonen, J.M. 1998, p107).

Applicability of strategy process in the industry in general within the built environment

In general, the strategy process seeks to analyze, identify and implement the organizational vision, mission and goals. Having said that, the initial target and ways of finding the correct answers to questions ‘Where are we now? Where do we want to go? And How we get there’, strategy and the strategy process can be formed in an effective manner. But in reality, whether organizations
at corporate level ‘leaders’ of organizations in the present market are well prepared to answer these questions is questionable. (Porter M. 1996, p77) emphasizes that establishing and developing a clear strategy is a primary requirement of a challenging leader. The reason behind all these could be ‘non application of innovation, none admiring demanding rapid change…’ identified by several management gurus very early. Although the literature does exist concepts have to be modified to suit new parameters (Clegg et al. 2005)

### Positive aspects of effective strategy process

The time has come to review, analyze and evaluate the process of strategy in order to keep organizational long-term goals within the dynamic market growth. Either externally or internally all parameters have to be re-aligned with the process of strategy to suit the market reflecting signs of sustainability. Chinowsky and Meredith highlight that finding answers to key questions “Where current strengths exist, where gaps exist, and where the priorities will be set to build upon these answers” would be beneficial in establishing an effective strategy process(Chinowsky P S and Meredith J E, 2009: P.7).

### Characteristics of organizations within the contemporary built environment

Due to rapid fluctuations in the recent global economic cycle, the contemporary built environment has been affected since early 2008. Adverse results and impacts were not favourable to a majority of organizations and related organizations up and down stream supply chains of organizations in the industry. Researchers Yisa and Edwards highlight that the organizations in the contemporary industry have to anticipate sudden market challenges and be capable enough to develop appropriate strategies in order to sustain the business in the context of profit maximization. Further, they emphasize that “Technology, communication and market advances are

<table>
<thead>
<tr>
<th>Elements</th>
<th>Tools</th>
<th>Key Factors</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify organizational Vision, Mission &amp; objectives</td>
<td>Ashridge mission model</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Environmental Analysis (External &amp; Internal)</td>
<td>Porte’s Five forces model</td>
<td>Environmental Factors</td>
</tr>
<tr>
<td>3</td>
<td>Identify Strengths, Weaknesses Opportunities &amp; Threats</td>
<td>SWOT analysis</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Organisational Analysis</td>
<td>Value, Resources</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Strategy Choice and Formulation</td>
<td>Cost Leadership, Differentiation, Focus</td>
<td>Strategic Formulation</td>
</tr>
<tr>
<td>6</td>
<td>Strategic Evaluation</td>
<td>Suitability, Feasibility, Acceptability</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Strategy Implementation</td>
<td>Mc Kinsey 7S Model</td>
<td>Strategic Implementation</td>
</tr>
<tr>
<td>8</td>
<td>Evaluation and Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Feedback &amp; Review</td>
<td></td>
<td>Feed Back</td>
</tr>
</tbody>
</table>

Table I – Strategy and strategic process map in general
fundamentally changing the global perspectives of time, distance and spatial boundaries” (Yisa, S and Edwards, D.J 2002: p.30). Currently, it has become global theory and all the companies operating in the contemporary industry have to be ready with proactive processes to defend and face fluctuating environmental changes rapidly.

**Required modifications in formulating a suitable strategy process in order to maintain the dynamic growth of organizations within the modern construction industry**

In the modern contemporary industry, organizational strategy and strategy processes need to be modified in order to suit industry changes and advances, which can ensure the long run of the business. Australian writers Kajewski and Weippert emphasise that the modern construction companies to mature and to be enriched with technical and financial capacity should be capable of meeting industry challenges to respond in terms of “integrating their supply chains; increasing their knowledge base and benchmarking” (Kajewski, S and Weippert A.2000:p.7). Also, in order to meet global challenges, organizations need to be vigilant in terms of ‘strategies’ and work on updating ‘strategic management processes’ to ensure facing environmental changes against political, economical and social changes. (Kuklis, 2009:p.99)

Hence, the process of strategy can be re-defined and formulated and mapped in sequence to ensure closing of gaps, which the organizations can fill broadly, in terms of further analyzing market and environment conditions. It ensures the introduction of elements 3a, 3b, 3c, 4a, 4b and 4c (refer to Table II). Further they can be enriched with elements 7a, 8a and 9a to ensure and strengthen the tail process. The whole process and sequence blended together ensure strategic implementation, evaluation, monitoring and feedback for ‘continuous improvement’ (KAIZEN) in the process as a whole in the long run.

<table>
<thead>
<tr>
<th>Elements</th>
<th>Tools</th>
<th>Key Factors</th>
<th>Action</th>
<th>More broadly</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Identify organizational Vision, Mission &amp; objectives</td>
<td>Ashridge mission model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Environmental Analysis (External &amp; Internal)</td>
<td>Porte’s Five forces model</td>
<td>Environmental Factors (environment scan)</td>
<td>Identify</td>
<td>Future trends, government changes, economical changes, competitors and territorial market, technological changes and scientific impacts</td>
<td>Strategic Analysis stage I</td>
</tr>
<tr>
<td>3 Identify Strengths, Weaknesses Opportunities &amp; Threats</td>
<td>SWOT analysis</td>
<td></td>
<td>Identify</td>
<td>Threats to existing Business, and opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Identify</td>
<td>To face threats, existing weaknesses and opportunities</td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td>Elements</td>
<td>Tools</td>
<td>Key Factors</td>
<td>Action</td>
<td>More broadly</td>
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<td>---------------------------------------</td>
</tr>
<tr>
<td>Strategic Analysis stage II</td>
<td>Missions re-defined</td>
<td>Future operations</td>
<td>Match</td>
<td>Future threats and opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Goals &amp; Objectives setting</td>
<td>Balance Scorecard</td>
<td>Meet</td>
<td>Perspective time frame</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bench marking</td>
<td>products and processes</td>
<td>Identify</td>
<td>Key advantages against competitors</td>
<td></td>
</tr>
<tr>
<td>Strategic Analysis stage III</td>
<td>Organisational Analysis</td>
<td>Value, Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investigation of progress in terms (IT)</td>
<td>Product and production processes</td>
<td>Identify</td>
<td>Information technology and knowledge base know-how</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Re- Investigation current Operations</td>
<td>Fresh information, Knowledge capabilities</td>
<td>Identify</td>
<td>Innovations in Operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formulate Business Plan</td>
<td>Market share Targets in terms of profits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic Choice</td>
<td>Strategy Choice and Formulation</td>
<td>Cost Leadership, Differentiation, Focus</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Strategic Evaluation</td>
<td>Suitability, Feasibility, Acceptability</td>
<td></td>
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</tr>
<tr>
<td>Strategic Implementation</td>
<td>Strategy Implementation</td>
<td>Mc Kinsey 7S Model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evaluation, monitoring and Control</td>
<td>Balance Score Card</td>
<td>Objectives Measurements Targets Initiatives</td>
<td>Identify Perspectives Control and re-implement Financial Customer Internal Business processes Learning and growth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feed Back &amp; Review</td>
<td></td>
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</tbody>
</table>

Table II – Strategy and strategic process map modified to suit industry challenges
Positive impacts of strategy process re-alignment and implementation

The developed and modified strategy formulation process and the organization's elements can be more broadly considered in the context of rapidly changing micro and macro environment. Here in order to face impulsive changes in the external environment some phases of the strategic process can be re-designed, re-engineered and according to that goals and objectives can be re-aligned to suit the new task. Refer to developed map in Table II, added elements 3a, 3b, 3c, 4a, 4b, 4c, 7a, 8a and 9a to enhance the clarity of:

(3a) Re-design Mission to match and face future operations,
(3b) Re-align goals and re-set objectives ensuring requirements of balanced scorecard perspective and with an appropriate time frame,
(3c) Bench mark by identification of key advantages to supersede competitors,
(4a) Investigate and increase the technical know-how, knowledge base and Information Technology (IT) to meet market growth,
(4b) Re-investigate current operations to ensure meeting market changes and increase innovations in operations,
(4c) Formulate business plan again to ensure increasing market share in terms of profit maximization,
(7a) Implement strategy - process re-engineering with strengthening well bonded communication internally and externally among all participants in the strategy process
(8a) Evaluate, monitor and control - strengthen methods of evaluation, monitoring and control mechanism to close gaps,
(9a) Feedback and review- special care to measure performance through feedback and frequent review.

The expected value addition

In the context of the sustainability perspective, the organization that seek changes in strategic process management develop their directions with the changing market - "changing waters of the market. It is through this independence, aggressiveness, leadership, and vision that organizations will move to the forefront of the construction industry" and ensure them an opportunity to respond to the constant changes in the global marketplace". (Chinowsky P S and Meredith J E, 2009, p8)

Conclusion

The foregoing essay identified and analyzed the concept of strategy and application of the strategic process in organizations within the contemporary built environment in general. Further, it enhanced the identification and in-depth analysis of strategy and strategic process changes to suit current organizations to reduce failures and to ensure achieving desired goals and objectives in terms of long term perspectives.

References

Management: Implications for Practitioners”, International Journal of Management Vol.26, No. 1, California State University, Long Beach, p99


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**Crawford v Board of Governors of Charing Cross Hospital Court of Appeal 07 December 1953**

**Keywords:** Medical negligence; expert evidence; medical treatment; palsy

**Summary:** Medical practitioner; liability of hospital.

**Abstract:** An operation was performed on plaintiff and his left arm was kept in a special position during the operation and medical treatment in which position things were the least likely to go wrong as far as the blood drip was concerned. Due to this positioning of the arm to a speci-angle caused brachial palsy in the left arm. He claimed damages for the negligence of the anesthetist against the hospital stating than anesthetist had failed to read an article in the Lancet on the subject which appeared six months before the operation

**Held:** High court held defendant were liable which was reversed by the court of appeal after considering the medical experts’ evidence.