"Is the Regional Engineer Fair Enough in Dealing with Variations?"

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The objective of this article is to discuss the issues related to "Valuation of Variations" under FIDIC 4th Edition in the regional industry (United Arab Emirates), and also to examine the powers and impartiality of the "Engineer" under the standard form of FIDIC 4th.

Several major contractual issues such as deactivation of price fluctuation clauses, non availability of relationship between clause 14 programme and clause 52, non availability of material procurement information related to clause 52 have been considered.

As per the professionals in the region and also the outcome of the research revealed that the problems encountered in dealing with clause 52.1 were mainly due to:

- Lack of awareness of the FIDIC conditions
- Incorrect interpretation of clauses
- Mistrust among the parties to the Contract
- Incorrect implementation of clauses

The behaviour of some regional professionals related to clauses in FIDIC have caused considerable difficulties in the administration of project works.

It is necessary to look at clause 52.1 by the industrial professionals and should alleviate necessary concerns for sound contracts administration in the region. Most contracts disputes can be eliminated with small improvements to the clause 52.1 which all the parties involved in the industry will be pleased to accept.

A regional construction project usually runs into a large number of variations due to numerous reasons. Some of the major factors are incomplete design, changes due to Employer's requirements, and practical problems due to buildability of complex designs, and local authority's requirements and also due to Contractor's own faults.

The construction industry within this region is often faced with claims and disputes which are related to variations. According to industry professionals, clause 51 and clause 52 of the FIDIC 4th are root causes for disputes in the region. Two major concerns dealing with these clauses are, the non availability of price fluctuation clause and the non availability of clear provision linking with clause 14 programme to deal with problems in valuation of variations which arise due to late instruction of works.

As per Nael G Bunni

> 'The adjustment of rate should be done considering the time delay, out of sequence of working, change of method of execution and extend of preliminaries affected'. (Nael G Bunni 2000, p.305)

The clause 52.1 has given the authority to the Engineer to fix the rates in an event of disagreement. Whenever the Contractor disagrees with the Engineer's decision there is no remedy for the Contractor other than going for a dispute resolution method for settlement which has higher cost involvement, effort and time in the regional dispute resolution mechanism like arbitration. Such situation will render the regional Contractors helpless and tend to agree to the Engineer's decision incurring losses rather than challenging them.

It was found that a majority of the disputes were due to Engineer's impartial decisions, especially in valuation of variations and administering the instructions. Since there is no price fluctuation mechanism practised within the region, the problems could have been alleviated if there is a clear provision provided with in the FIDIC linking clause 14 programme and the time of the Engineer's instructions to vary the works.

The most identified modification in regional Contracts is the deactivation or deletion of price fluctuation clause and it has become a very common practice, refer figure 1 below;

the same period would minimize most of the related issues. By inclusion of the above referenced Clauses, the Contractors' risk could have been determined when pricing projects. The specific period to which the rates are limited, should be clearly mentioned in the agreement.

Most of the people in the region believe that the regional Employers get advantage in "variations" by omitting the price fluctuation provision in contract.

Figure 2 below (next page) shows that the majority (60%) agreed that the Employers get advantages (irrespective of the scale of the advantages) from deactivating the price fluctuation clause. In this situation, whenever the

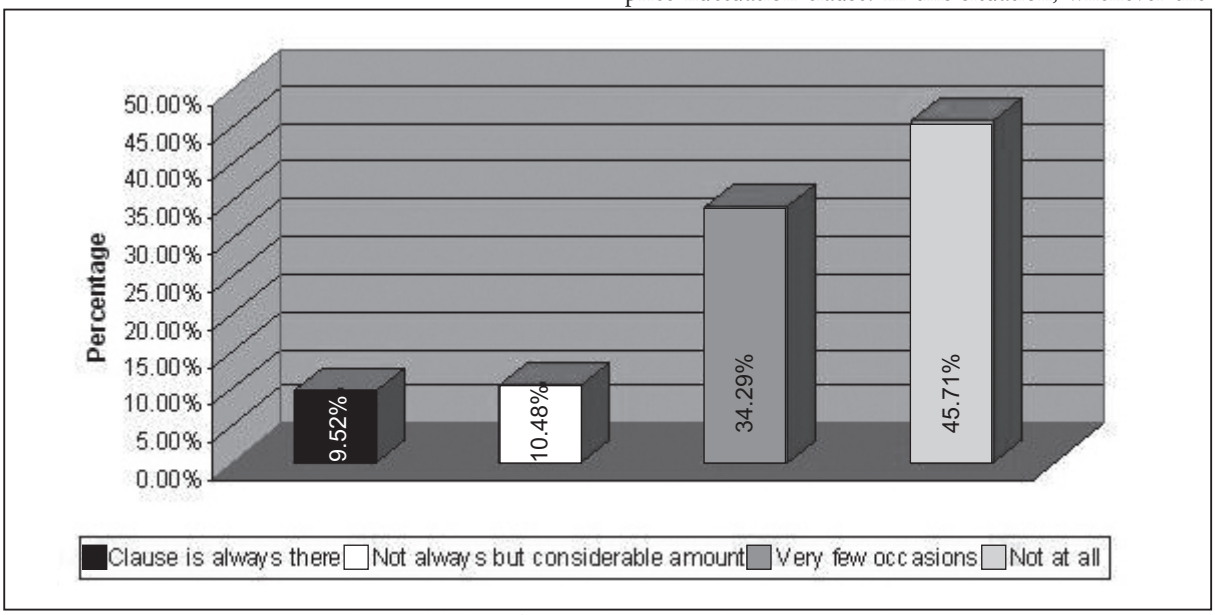

Figure -1 The availability of Price Fluctuation clause in regional Contracts

The volatility of the market condition experienced in the recent past has created serious difficulties for Contractors in forecasting material prices when tendering in the absence of suitable price fluctuation clauses. The cement and steel price hikes (at the time the research was carried out) in the recent past can be given as a good example to this effect. This uncertainty in forecasting material price not only created difficulties for the Contractors but also for the Employers in procuring Contractors.

Considering the unfair and unreasonable methods adopted to deal with price fluctuation clause in the region, it is evident that if the term the "Contract Period" is defined in FIDIC, and the Contract rates limits to

variations are instructed Contractors have to do those additional works as per the rates in the Contract. If the material prices go up in unpredictable manner Contractors may have to suffer the extra cost. As a precaution all the Contractors in the region add large amounts of money in their tender bids considering price fluctuation risk.

Reg Thomas in his book Construction Contract Claims (1993) explained the issue as follows:

> 'In practice, most variations have some effect on the progress of the works and the method of executing the work. Where it is possible, each variation should be valued taking into account all of delaying and

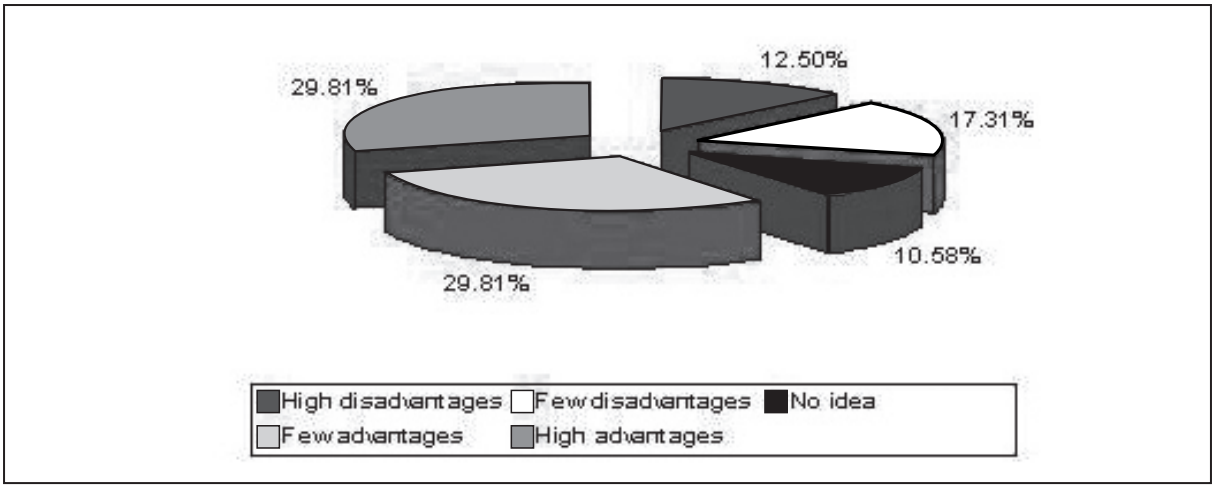

Figure 2 The effect for the Employer due to lack of price fluctuation clause

disruptive elements which are directly related to the variation'. (Reg Thomas, 1993, p116)

Usually the Contractors prepare their material procurement schedule in the early stage of the project. This schedule is in accordance with the clause 14 programme and also coordinates with their cash flow. Any instruction which requires procurement of material out of this procurement schedule will incur additional money which would not have been envisaged.

Under normal circumstances the Contractor would have recovered the additional cost of those works incurred, if the clause 52.1 administers them in fair and reasonable manner. Whenever the Engineer administers the changes impartially and with rigid attitude the Contractors face difficulties in recovering the additional cost incurred. This problem could have been avoided if there is a clear link provided in FIDIC between clause 14 programme and the timing of the issuing variations.

The time related to the construction activities of the project is explained in the clause 14 programme of the FIDIC 4th. Whenever the works affect the work in progress, the impacted programme shows the actual time needed to complete those works. The programme is prepared by the Contractor showing how he/she intends to do the works and it should clearly show the beginning

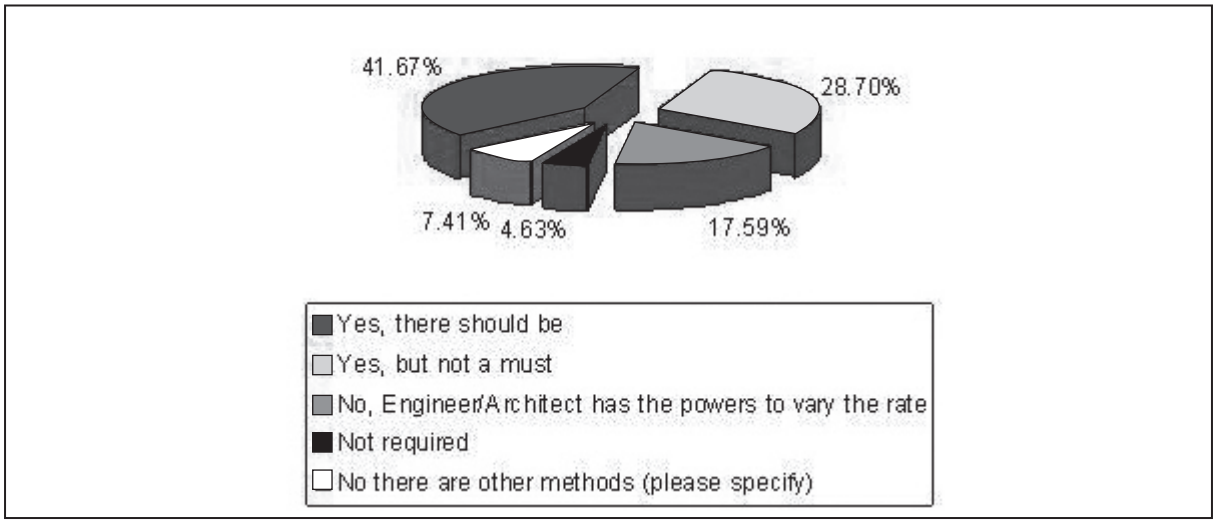

Figure 3 Necessity of a relationship between "clause 14 programme" for "valuation of variations"

and the end of each construction activity. When the variations are instructed those works need to be included and impacts are shown in revised programmes (unclear / rephrase).

Figure 3, above illustrates that 70% of the regional professionals in the industry prefer to have a formula for price adjustments in the process of "valuation of variations", with a relationship to clause 14 programme. However, the FIDIC 4th edition does not have such a provision included.

There is a provision in FIDIC 4th for additional cost consideration for the case of out of sequence works as described under clause 51.1(f). However, the prevailing contract administration practise in the region shows that the Contractors are not always compensated for the additional cost incurred for the out of sequence works.

The figure 4 below illustrates how often Contractors are getting paid for "out of sequence" of work in the UAE region.

When the Works out of sequence are specified as variations, according to clause 51.1 those works need to be paid with extra consideration. However, noticeably in this region it has become a custom to neglect those out of sequence works for extra payments. This particular issue also has not been mentioned in any part of the FIDIC 4th. The clause 52.1 should address this issue as a separate part of the valuation process. If it is written in the Contract, people will comply with the clause and at least consider those provisions.

Even though the Contract professionals are aware that the prevailing practice is questionable since there is no clear mechanism in FIDIC 4th to deal with the problem the administrators in the region tend to ignore the professional practice and opt not to pay for additional cost due to out of sequences work.

Introducing valuation of variations using invoices as an alternative method is a good solution subject to high degree of transparency in the process. Greater care should be taken to avoid misusing invoices if this method is going to be implemented.

According to lump sum contract procedure, the rates are fixed for the Contract period. However the term "Contract Period" is an undefined term in FIDIC. People have argued in several ways defining the Contract Period as the original Contract duration, including the extension of time period until taken over and some interpret the "Contract Period" to include the defect liability period. So it is better to agree, what is meant by the "Contract Period" in the Contract before agreeing to the rates for

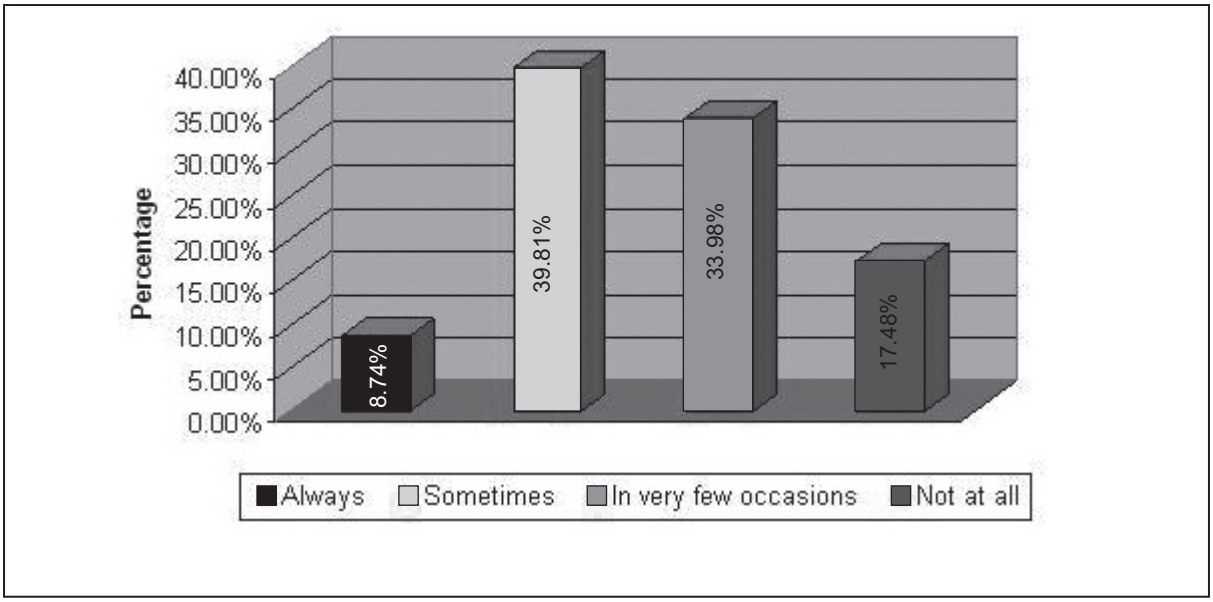

Figure 4 Payments for affected "sequence of works"

the period.

Most of the construction projects get delayed due to various reasons. Non availability of such clarifications about the "Contract Period" generates a lot of disputes in the final stage of the projects. Especially when the parties deal with price fluctuations and ad hock variations issued in the later part of the project, the situation destroys the relationships and most of the times they could end up following the dispute resolutions procedure.

When a project is extended due to additional works instructed by the Employer, how are the additional works being paid? There are a number of construction projects in the region having these issues and what should be the correct methodology to administrate the issues?
Should it be fair for the Contractor to be paid on BOQ rates during the "Extension of Time" period granted due to client's delays?

According to the survey results illustrated in figure 5 above, It is very interesting that 4.9% of people in the sample think that the costs should be absorbed by the Contractor. It is arguable why the Contractor needs to do so, thus compensating Employers requirements.

42% of the sample prefers to use the BOQ rates but additional costs need to be covered from the EOT claim. It means that this particular group thinks that there should be a compensation for those rates.

All other three groups together (52.94%) are saying that the payment using BOQ rates is unfair. However in the FIDIC 4th there is no clear explanation on how the rates should be revised or how to add the price fluctuations when the EOT is granted. Especially when the modified Contracts in the region deactivate the price fluctuation clause there should simultaneous be amendments to the clause 52 on how to value the variations in those period.

The suspicious nature among the parties (Employer, Consultant and Contractor) in construction projects in the region has hindered building up sound and friendly background for construction when carrying out day today construction work. This has created untrustworthy environment for the construction which is not accepted in any environment, by any standard. The above environment can generate disputes between the parties which have always found difficult to arrive at agreement. All the time each party tries to get the advantage over the others' weaknesses rather than providing fair and reasonable service to the industry.

It can be seen that most of the disputes created in the regional industry relate to the behaviour of individuals involved in the construction field. Those who have arrived in the region with different cultural backgrounds, without proper contractual knowledge and experience

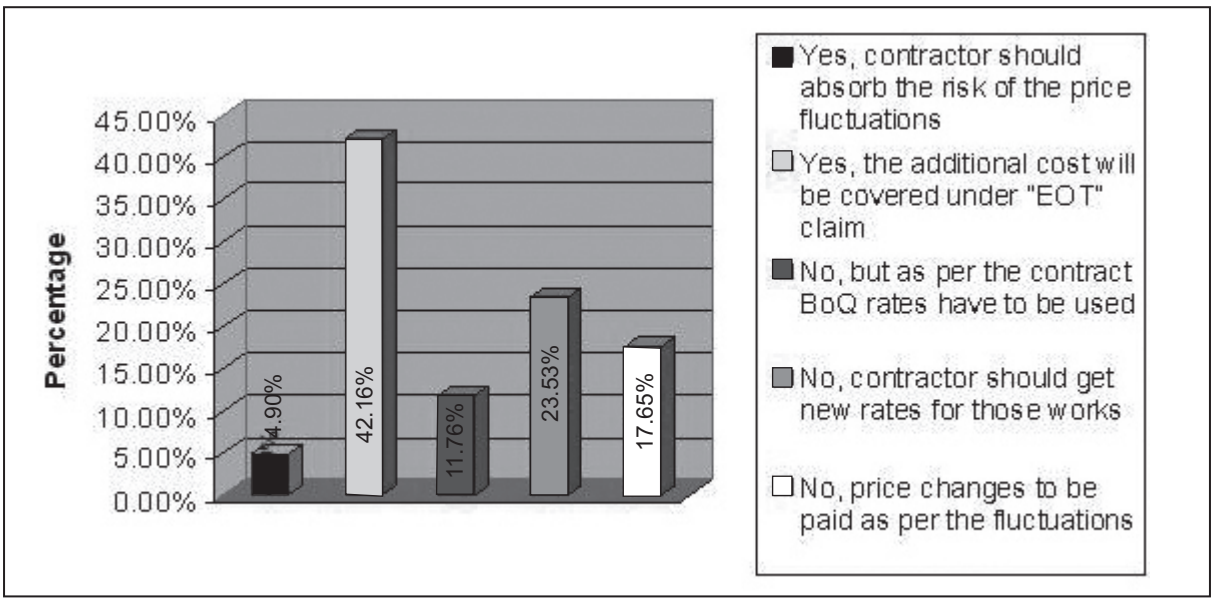

Figure 5 Fairness of use BoQ rates in Extension of Time period

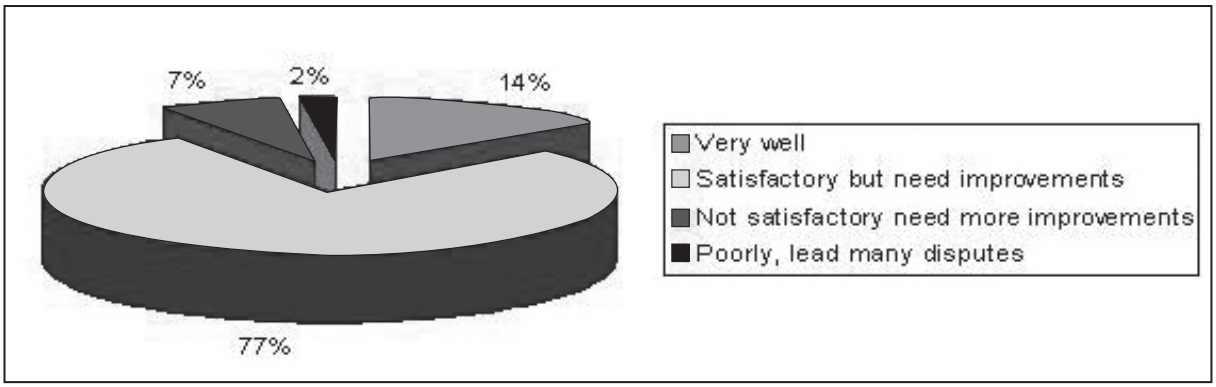

Figure 6 General view about the "Clause 52.1"

in administering FIDIC contracts are the root cause for disputes in the industry.

Moreover these professionals are always under extreme pressure due to fast track nature of projects currently being carried out in the region that have restricted their ability to perform their duties diligently and with in-depth investigations.

Most of the Employers in the region expect their employees to safe guard his/her own interests rather than serving in fair and reasonable manner. The Engineer is the Employer's representative in a working project that is paid by the Employer. When the regional Employers expect such nature from person who should behave fair and reasonable way to both parties, other party (the Contractor) is always positioned in danger of missing their rights. This is not a very healthy environment for the regional construction industry.

The regional professionals believes that the clause is drafted satisfactorily and need a few improvements for sound contract administration in the regional construction industry while very few professionals appreciated the existing clause as a perfectly drafted clause which does not require any improvements.

Figure 6 above shows that only 14% of the professionals recommend that the clause does not need any changes while another 2% say that the clause has been poorly drafted. All other 86% have emphasised the necessity of improvements where majority (77%) of them recommended few improvements. It is interesting that the majority from the above 86% is working as consultants

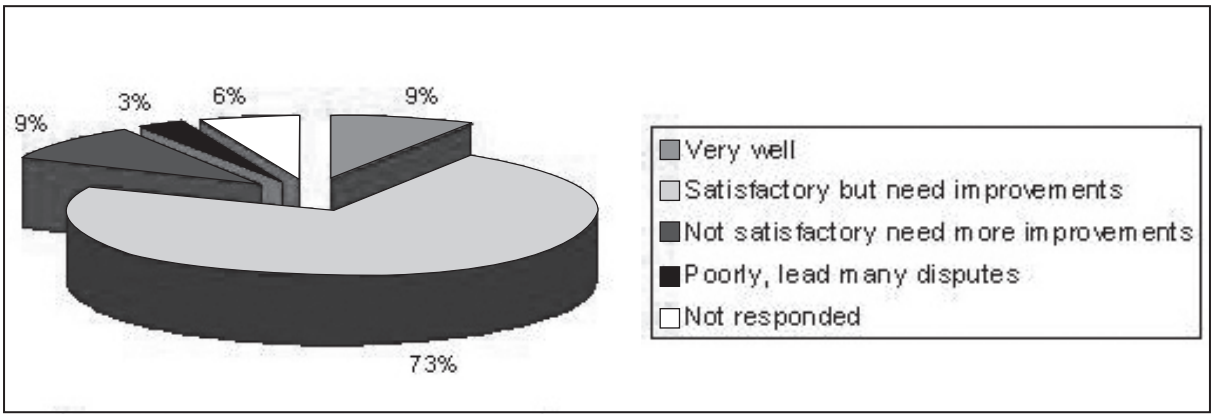

Figure 7 Contractor representatives' views about the clause

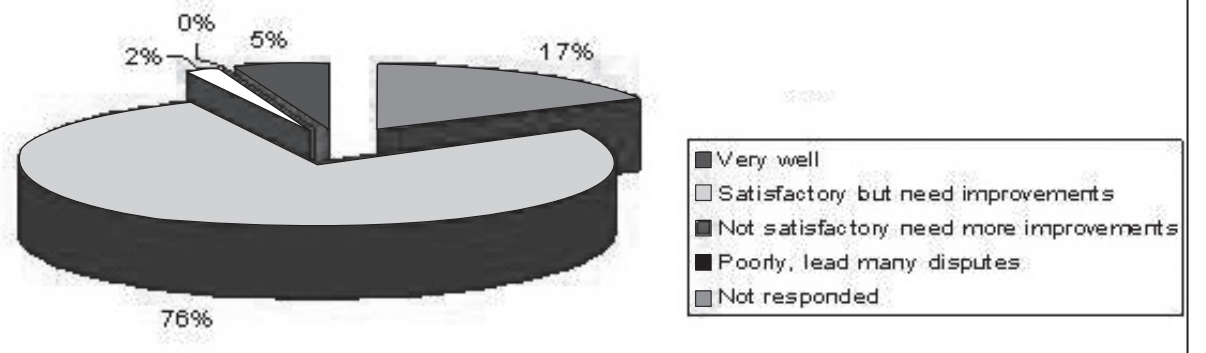

Figure 8 Consultant representatives' views about the clause

(Engineer) in the industry.

As a summary the clause 52.1 has problems and those problems increase due to administering of the FIDIC 4th by the professionals in the regional industry.

Improvements

It is true that most of the expatriates in the regional construction industry have come together from different countries bringing their own experiences in different types of contracts. Thorough understanding of the regional contracts in used essential before practising as Contract Administrators in the regional industry.

The situation can be improved easily by providing proper training and conducting workshops in contract administration under FIDIC standard form of contracts to regional construction professionals who lack experience. Some of the misinterpretations also can be eliminated by adopting the strategy of in-house training programmes for the new comers to join the industry.

It is highly recommended to pay special attention to make aware of the professionals in dealing with the major concerns such as issue of variations, valuation of variations, delays, extension of time, prolongation costs and also dispute resolution before practicing as Contract Administrators in the regional industry. Getting a clear understanding and learning of the correct procedures of the FIDIC 4th will mitigate the ambiguities and misunderstandings in the industry and the contracts can be administered more efficiently.

The Engineer and his/her team should be well experienced, qualified and trained with an ability to deliver their duties in a fair and reasonable manner to safe guard the interests of the Employer as well as the Contractor. Impartial, independent construction professionals with a fair knowledge and maintaining professional ethics can be a better solution to deal with the prevailing issues in the region.

Special attention should be given regarding the clause 51 and clause 52 by the regional experts in the construction industry where the powers of the Engineer need to be re- examined.

The misuse of the powers given to the Engineer under clause 51.1 and 52.1 of the FIDIC, by some of the Engineers in the regional construction industry should be avoided. While issuing the necessary and appropriate changes as variations under clause 51.1 and also fixing of rates under clause 52.1, FIDIC needs to be reviewed by the regional experts to rectify the situation. It is suggested to form a professional body which can be used for resolving minor disputes such as the ageing of rates.

It is also important that the understanding of the role of the Engineer by the regional Employers to be an impartial person who has to carry out his duties in a fair and reasonable manner to both the Employer and the Contractor. Even though the Engineer is appointed by the Employer, the Employer should not use his powers to drive the Engineer to safeguard his interests by letting the Contractor into difficulties.

Adding the term "Contract Period" to FIDIC under

the "Definitions and Interpretation" section by which the rates can be fixed for the duration of the Contract. Maintaining price indices or any other cost indices can be used for adjusting the price fluctuations in the region. Under present situation the regional Employers are facing the risk of the price fluctuations included in the tender even though the material prices may remain unchanged during the Contract duration.

Alternative mechanism has been introduced by the Abu Dhabi government. It is a remarkable development to compensate the price escalations by the Employer taking into consideration of the material procurement schedule prepared in accordance with the clause 14 programme. The Contractor should give the material procurement schedule together with the clause 14 programme. Implementation of this method in the region in valuation of variation process can be an excellent solution to the disputes in valuation of variations.

The alternative procurement routes and alternative forms of contracts can be tested as alternative methods while there are some Employers who have already started "GMP" Contracts and also "Partnering Contracts" in the region which have different mechanisms than the traditional procurement methods. The use of Partnering Contracts is becoming popular in the regional industry and it can be seen that the projects carried out under this arrangement are running smoothly and effectively. However those alternative procurements need to be proven in the region where the parties always have suspicious nature among them.

Finally it is highly recommended to maintain the standards of the professionals and professional ethics for fair and reasonable practise by all the professionals in the regional industry.

Finally if all the parties understand their responsibilities and liabilities under FIDIC standard form of Contract and if all the parties worked diligently and ethically in fair and reasonable manner most of the identified issues in the region can be mitigated. It is essential to work with a mutual understanding in the professional environment for the development of the industry, for the satisfaction of all the parties involved and for higher returns for the stakeholders.

White, Frost and others -v- Chief Constable of South Yorkshire and others [1999]

The House considered claims by police officers who had suffered psychiatric injury after tending the victims of the Hillsborough tragedy.

Held: An employer has a duty to protect his employees from physical but not psychiatric harm unless there was also a physical injury. A rescuer, not himself exposed to physical risk by being involved in a rescue was a secondary victim, and as such not entitled to claim. Primary victims are 'victims who are imperilled or reasonably believe themselves to be imperilled by the defendant's negligence'. Lord Steyn: "(T)he law on the recovery of compensation for pure psychiatric harm is a patchwork quilt of distinctions which are difficult to justify ... In my view the only sensible general strategy for the courts is to say thus far and no further. The only prudent course is to treat the pragmatic categories as reflected in [case law] as settled for the time being, but by and large to leave any expansion or development in this corner of the law to Parliament. In reality there are no refined analytical tools which will enable the courts to draw lines by way of compromise solution in a way that is coherent and morally defensible. It must be left to Parliament to undertake the task of radical law reform."