

THE POTENTIAL OF BIAS IN MULTI-TIER CONSTRUCTION DISPUTE RESOLUTION PROCESSES

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Disputes have been identified as the inevitable happening in highly competitive construction contracting business. Amicable dispute resolution is welcomed by the construction industry. With major changes in Hong Kong construction dispute resolution landscape, wider use of alternative dispute resolution (ADR) methods has been advocated. As such, multi-tier dispute resolution (MTDR) processes incorporating ADR have become the design protocol for dispute resolution provision in contracts. Moreover, the use of multi-tier dispute resolution (MTDR) does not guarantee dispute can be resolved without the need to resort to formal proceedings. In some cases, multi-tier resolution processes may cause unintended obstacles against settlement. The possibility of biases creeping in may be one of those. The aim of the study is to examine the potential of bias on the part of the disputants as well as the neutral third party in MTDR processes. Among the types of bias reviewed for this study, anchoring appears to be the most likely bias that may creep in during MTDR processes. The concept of anchoring bias and its characteristics are therefore examined. The study points to further study on the means to alleviate the influence of anchoring bias in MTDR.

Keywords: bias, multi-tier construction dispute resolution, obstacles.

INTRODUCTION

Promoting the use of alternative dispute resolution mechanism (ADR) is one of the strategies in enhancing the efficiency of the construction industry in Hong Kong (CIRC 2001). The use of ADR aims to reduce non-productive use of scarce resources in protracted and costly dispute settlement. It is well recognized that if negotiations or neutral-assisted resolutions are successful at project level, then the construction industry as a whole could reduce unproductive use of resources on dispute resolution. Furthermore, it is undisputed that dispute resolutions through arbitration and litigation take much longer time and are far more costly than using ADR. Therefore, dispute resolution clauses in construction contracts have typically incorporated ADR as an integral part of multi-tier dispute resolution (MTDR) process. As such, the success of using multi-tier dispute resolution (MTDR) process that embraces ADR should be welcomed by all stakeholders in construction contracting business. This study examines the potential of bias that may happen in MTDR processes.

Englich and Mussweiler (2001) found that even judicial decisions were influenced by bias. In the experiments of Englich *et al.*, (2006), participating legal experienced professionals anchored their decisions on a given sentencing demand and biased

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toward it even if this demand came from an irrelevant source. The randomization is so extreme that the anchors may even be determined by throwing a pair of dice by the participants. These findings suggested that the decisions of experienced experts are also subject to bias.

In essence, a dispute is likely to be evaluated several times in a MTDR process. The possibility of bias creeping in during the decision making process is real. This study posits to explore the conceptual bases of bias in MTDR processes. Bias on the part of the disputants as well as neutral third party are discussed.

MULTI-TIER DISPUTE DISSOLUTION (MTDR) FOR CONSTRUCTION DISPUTES

Contractual use of MTDR

MTDR for construction disputes can occur in the contractual regime and beyond. Dispute resolution procedures in construction contracts have undergone notable evolutions in the last few decades. Resolution mechanism stipulated in contracts has become more complex (Cheung 1999, 2010, 2014). The contractual alternative dispute resolution movements in Hong Kong construction industry have four milestones. First is the Private Sector Form of Conditions of Building Contract 1976 Edition, in which the 2-tier dispute resolution system includes architect's decision and arbitration. Second is the Hong Kong Government (HKG) General Conditions of Contract for Building Works 1999 Edition, which incorporated mediation to follow engineer' decision with arbitration being the final contractual resort. The third milestone is the 4-tier system used in dispute settlement system designed for the HKG General Conditions of Contract for Airport Core Programme (ACP) Civil Engineering Works, 1992 Edition.

The 4-tier includes in sequence engineer's decision, mediation, adjudication and arbitration. The fourth milestone is Dispute Resolution Procedure under Provisional Airport Authority (PAA) Conditions of Contract that also has a 4-tier dispute resolution process, namely i) project manager's decision, ii) project director's decision, iii) dispute review panel and iv) arbitration. It is notable that the development of dispute settlement clauses in Hong Kong is characterised by the wider use of ADR as intermediate step before arbitration. These multi-tier systems attempt to get the dispute resolved either by the help of neutral third party in mediation or earlier involvement of senior members of the employer organisations. The salient feature is that the dispute will be considered several times before reaching the final contractually designated device of arbitration. In order to achieve the desired outcome of a MTDR system, the contract clauses must be well drafted. The process should be explained clearly in terms of procedural requirements such as time for action. The consequences of non-compliance should also be unequivocally stated.

MTDR beyond the contractual regime

In order to achieve the more effective and economic dispute resolutions, government greatly encouraged negotiations and mediations to be attempted before activating expensive and time-consuming arbitration and litigation. Moreover the contractual use of ADR under multi-tier dispute mechanism is voluntary and can be skipped by the parties to the contract (Cheung, 2010). In contrast, legal intervention has also been noted. Under the Civil Justice Reform in 2009, the Judiciary published Practice Direction 6.1 (PD 6.1). Section F of PD 6.1 states that parties in construction are encouraged to attempt mediation and in order to promote the use of mediation, the

Court may impose cost sanctions where a party unreasonably refuses to attempt mediation. Cost sanctions may also be ordered if either party doesn't meet the committed minimum amount participation in mediation.

The introduction of 'Med-Arb' provision under the 2011 Arbitration Ordinance (CAP 609) allows arbitrators to act as mediators prior to or following an arbitration with the consents of both parties. The Impending Security of Payment Legislation (SOPL) in Hong Kong will introduce adjudication as a statutory interim dispute resolution mechanism for time and payment related disputes. Similar arrangement first came into force when the Parliament of the United Kingdom passed the Housing Grants, Construction and Regeneration Act in 1996. The number of dispute referred to adjudication increased immediately after the introduction of SOPL (Adjudication Reporting Centre 2013). Similar legislations can be found in Australia, Singapore, Malaysia and Ireland. Nowadays, statutory adjudication with binding decision is employed to handle construction payment-related disputes in United Kingdom, New Zealand, Australia and Singapore. Moreover, United Kingdom and New Zealand also employ it to handle non-payment related construction disputes (Cheung, 2010). The above collectively demonstrate the trend in using multi-tier processes incorporating ADR mechanism beyond the contractual regime.

From the development of contractual dispute resolution mechanism and the legal intervention, it can be concluded that multi-tier dispute resolution (MTDR) incorporating alternative dispute resolutions (ADR) has developed substantially and is now the predominant approach in construction dispute management.

BIAS IN DECISION MAKING

Decision making is built upon an intricate process of receiving, extracting, and communicating information in which people have to exercise judgments (Klayman, 1995). Scholars have been studying different types of bias that might occur in exercising judgment. Some of the common types of bias identified are anchoring, overconfidence, confirmation, hindsight and self-serving.

Anchoring bias greatly influences judgement because of the assimilation of previous impression (Sherif *et al*, 1965; Sherif and Hovland, 1961; Mussweiler *et al*, 2004). Decision makers tend to rely too much on the first set of information received (Tversky and Kahneman, 1974). Moreover the first set of information can simply be random and un-informing starting points (Chapman and Johnson, 1999). In some situations, the opening offer can just be a tactical ploy. Besides, the adjustment from the anchoring information to the final result is usually insufficient and prematurely done (Tversky and Kahneman, 1974). People tend to reach a final result because it is accessible (Epley and Gilovich, 2006), perhaps it is the easiest-reach among the large region of acceptable results (Quattrone *et al*, 1984; Wilson and Brekke, 1994). So as the vivid name speaks for itself, the final inaccurate judgments are outcomes of the anchors.

Being too confident over the accuracy of the judgment or the outcome of the decisions is another type of bias in decision making. Klayman, *et al.*, (1999) called this as overconfidence bias that is more noticeable in complex decisions. Moore and Healy (2008) identified three kinds of overconfidence behaviour: i) overestimation of one's actual performance; ii) overconfidence of one's performance compared to others'; and iii) overconfidence about the accuracy of one's judgment. As suggested by Pitz (1974), people are overconfident with general knowledge items of moderate or

extreme difficulty due to hyper precision effect. Interestingly, overconfidence is apparently correlated with anchoring bias. Block and Harper (1991) explained that people were inclined to overestimate the probability of conjunctive event. Since it provides a natural starting point, therefore creating an unwarranted confidence that the judgment is correct.

It is a basic trait that people will always look for evidence to prove their stance rather than opposing them. Confirmation bias is a form of bias where information is gathered and recalled selectively to support current thoughts or preconceived assumptions (Klayman, 1995). Klayman used a method called “Positive Test Strategy” to verify the existence of confirmation bias. In this method, the subjects were asked to identify a rule that applied to series of triple numbers, e.g. 2-4-6. Subjects may construct other sets of three numbers to test their assumptions about the rule the experimenter has in mind. The experimenter will then clarify whether those three numbers are satisfactory or not. Subjects were told to stop guessing once they were confident about their answer. From this experiment, it was found that most of the subjects were confident that the rule was it should be even number, with the addition of two. With the hypothesis generated themselves in mind, subjects automatically tried to confirm the hypothesis, but not attempted to challenge another set of odd number, 3-5-7, which was agreeable as well.

Individual’s overestimation of the happening of certain event, despite having been little or no basis for predicting it, is next type of bias to be studied (Hoffrage and Pohl, 2003; Roese and Vohs, 2012). Slovic and Fischhoff (1977) explained this type of hindsight bias happened when people “exaggerate the predictability of reported outcome”, therefore boosting the perceived probability of occurrence as much as fifteen percent. In 1988, Dawson and his colleagues conducted an experiment in regard to prove the existence of hindsight bias by presenting four medical cases to physicians and medical students. Some of the subjects were told the correct diagnosis while some others were not. Those who were not told the diagnosis were instructed to rank five possible diagnoses, whilst the others who have known the outcome were ordered to put themselves on the shoes of the decision makers and diagnose the case according to their own opinion. It was noted that 50% of the hindsight subjects gave the correct answer, as opposed to the other group in which only 30% managed to give the correct answer; thus confirming the presence of hindsight bias in human judgment.

This next type of bias is called self-serving bias. It is often the case that people take credits for their successes but blame others for failures simply because this trait acts as a motivation to sustain one’s self-worth. Beckman (1970) conducted a simple experiment where subjects were told to teach math to fourth grader students. Students were programmed in which one of them will fail and the other will succeed. Subjects then were asked to evaluate their performance with respect to their students’ test result and it was proven that the subjects whose student succeeded took all the credits for themselves while the subjects whose student failed either blamed student’s incapability of executing the problem properly or other external factors. This type of bias is often done unconsciously, due to the trend that people attribute positive outcomes as internally caused and negative outcomes as externally caused.

After studying the characteristics of the five types of bias, the study proposes that anchoring bias is likely the most probable type of bias that may creep in MTDR. In a MTDR process, the result of previous tier of resolution may act as the anchor affecting next tier of process. Decisions of disputants, third party neutral and judges

are susceptible to anchoring bias once they are involved in more than one tier of the MTDR.

ANCHORING BIAS IN MULTI-TIER DISPUTE RESOLUTION

The existence of bias is an unjustified departure from the ground rule that “justice has to be seen”. The most potential type of bias existing in multi-tier dispute resolution processes is anchoring bias. This study conceptualizes anchoring bias in MTDR by analysing its characteristics and academic explanations. Biased behaviours in MTDR are examined.

Previous research studies found that it was quite natural that people made decisions with reference to previous relevant anchors. Researchers found more striking observation that anchors still have influence even when these seem to be irrelevant, un-informative and plausibly extreme or self-generated (Chapman and Johnson, 1994; Strack and Mussweiler, 1997; Chapman and Johnson, 1999; Mussweiler *et al.*, 2004). And it happens independent of people’s expertise, no matter experienced or not (Englich *et al.*, 2006; Northcraft and Neale, 1987; Mussweiler *et al.*, 2004; Wright and Anderson, 1989). Besides, anchoring bias occurs no matter what the motivation is. This cannot be avoided even with reminder of the bias potential (Wilson *et al.*, 1996). In MTDR processes, it has been found that accomplished trial judges with an average of more than 15 years of experience were influenced by authentic but normatively irrelevant sentencing demands, even if the demands were made by non-experts or determined randomly, even by random numbers extensively used in a prior task or during the trial (Englich and Mussweiler, 2001; Englich *et al.*, 2006; Wilson *et al.*, 1996).

Anchoring effect is proposed to be an appropriate theoretical explanation of biased behaviours in MTDR processes. The first explanation of anchoring bias is insufficient adjustment (Tversky and Kahneman, 1974). Anchoring effect involves two processes, firstly people make judgment from an initial value (anchor), then make adjustment from the starting point to a final estimation or decision. Moreover, the adjustments are usually insufficient and prematurely terminated. Many researchers tried to figure out the reason why the adjustment was insufficient. For example, Quattrone *et al.*, (1984) proposed that when making adjustment from the starting reference, people tended to stop as soon as they got into a region of acceptable answers. The adjustment process terminated once they found the first acceptable value (Mussweiler *et al.*, 2004; Wilson and Brekke, 1994). Chapman and Johnson (2002) further added that adjustment was not effortful and terminated too early because of the lack of cognitive resources. Accordingly, in MTDR processes, negotiations are significantly influenced by the first offer (anchor), the more a seller asks for, the higher the negotiation outcome; the less a buyer offers, the lower the negotiation outcome (Chertkoff and Conley, 1967; Galinsky and Mussweiler, 2001; Thompson, 2008; Schweinsberg *et al.*, 2012). Besides, people tend to suffer anchoring effect from irrelevant information during number estimation (Neale and Bazerman, 1992; Tversky and Kahneman, 1974; Huber and Neale; 1986; Northcraft and Neale, 1987). During negotiation, the neutral third party makes insufficient adjustment from the first offer, so the final estimation arrives around the initial values. Furthermore, the outcome of negotiation may act as an anchor, and the same third party in next tier of dispute resolution probably would make insufficient adjustment from the previous result, therefore dispute resolution at the next tier is biased towards anchor.

Conversational hint is another explanation of anchoring bias. In some experiments, subjects considered the information (anchor) provided by the experimenters as very plausible, informative, so they made estimation largely based on the anchors (Jacowitz and Kahneman, 1995; Grice, 1975). In this connection, decisions and judgment were made on the belief of subjects that the values of target were of great vicinity and relevancy with the anchor (Northcraft and Neale, 1987; Mussweiler *et al.*, 2004). In MTDR processes, Med-Arb arrangement or mediation before trial, the neutral third party could take the information they get during mediation into account. And their judgment in the present resolution phase could greatly rely on their belief in the information collected before.

Selective accessibility model is another explanation of anchoring effect (Mussweiler, 1997; Mussweiler and Strack, 1999; Strack and Mussweiler, 1997). The mechanism works on the basis of the proposition of a two-step judgment-making process. First, human make comparison between the estimation target and anchor, then followed by final estimation. During the comparison process, the approach of “hypothesis-consistent testing” is applied. This means human compare the target and anchor by testing the hypothesis that the target is same as the anchor (Mussweiler, *et al.*, 2004). The result of the comparison is that it increases the accessibility of anchor-consistent knowledge of the target, which helps the final estimation arrives at the vicinity of the anchor (Mussweiler, *et al.*, 2004). Chapman and Johnson (1999 and 2002) proposed “anchoring as activation” in a decision making process. It is proposed that anchors influence judgment by changing the availability, construction or retrieval of features of the target. It has been found that judges have been affected by anchors that creep in and legal decisions were resulted (Chapman and Bornstein, 1996; Hastie *et al.*, 1999; Englich *et al.*, 2006). It has also been shown that even trial judges were influenced by authentic information used or collected in a prior task or during the trial (Englich and Mussweiler, 2001). Information and results of prior alternative dispute resolution (ADR) may activate the features that the current judgment and previous results had in common, leading to a biased estimation.

WAYS TO AVOID BIAS IN MTDR

From the review of studies on anchoring bias, it can be observed that even when the subjects have been reminded that their judgment may be influenced by the anchoring information (Wilson *et al.*, 1996), the influence persists. How to eliminate the effect of bias? Analysing the results of the experiments of Chapman and Johnson (1999), researchers found that trying to find the differences between the anchor and the target deliberately, or consider the reasons and features inconsistent with the anchor can reduce the effect of anchor. Lord, *et al.*, (1984) called the manipulation to consider the inconsistent reasons, features and alternatives as “considering the opposite”. Therefore, trying to find the differences between the result of the previous tier of resolution and the present judgment deliberately, or consider the reasons and features inconsistent with previous collected information can reduce the effect of anchoring bias. Similarly, Diamond (2015) proposed that the presiding arbitrator should ask each party to provide a best case for the other side, which would encourage each party to look into opposite facts and to counter bias. Besides, in the same study, Diamond (2015) also stated that it would be better to have an arbitrator panel instead of a single arbitrator. Because debates and opinion exchange can provide the opportunity for arbitrators to consider the judgment carefully.

CONCLUSIONS

Dispute resolution is a fact of life in construction contracting. The use of multi-tier dispute resolution processes (MTDR) incorporating ADR has become the norm for resolving construction dispute. As such, a dispute is likely to be evaluated several times in a MTDR process. Bias may creep in when a dispute is evaluated at different tiers of a MTDR process and affect those who are involved in more than one tier. Among the possible types of bias, anchoring bias is proposed to have the potential to creep in MTDR. The study examined concepts and characteristics of anchoring bias. The study suggests some methods and mechanisms to reduce bias effect in MTDR processes. Further studies in this regard would be of both academic and practical value.

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