Choice of Alternative Dispute Resolution Process in Uganda's Construction Industry

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Abstract

Construction disputes are one of the obstacles to successful project execution world over usually leading to increase in project cost and in worst cases stalling or suspension of the project may occur. The ability, therefore, to resolve contract disputes quickly and effectively makes a difference between a successful project and a failed one. Whereas attempts are in many cases made to resolve disputes, there has been no well laid criterion for the choice of the dispute resolution strategy. This study provides a framework for the choice of Alternative Dispute Resolution (ADR) based on the project risks. The study analysed the suitability of the Alternative Dispute Resolution Methods (ADRMs) to settle disputes arising from the above mentioned risks. It was found out that Negotiation is suitable for settling disputes from all risk items except for changes in laws and regulations. The result of this research will not only help construction practitioners and researchers in choosing the dispute resolution clause(s) to be included in the contract but also the choice of a suitable Dispute Resolution Method (DRM) to settle disputes arising during contract implementation. It is recommended that the construction industry in Uganda should put more emphasis on the suitability of a DRM to settle disputes right from the onset of contract design. In addition, the government legal system in partnership with the professional bodies in construction should introduce construction arbitration boards and Dispute Adjudication Boards in order to overcome the lengthy and costly litigation procedures.

Keywords: Alternative Dispute Resolution, Construction, Dispute Resolution Methods

1.0 Introduction

Construction like any business is risky. It has been observed that construction ventures are characterized by a high degree of uncertainty and complexity and that there are very few construction projects that do not give rise to some form of dispute during the construction stage (Cheung, 1999). Important to note is that most of the construction projects are executed through contracts which are generally not easy to comprehend even by professionals (Lyer*et al*., 2008). The other challenge affecting the construction industry is the adversarial attitude (Cheung &Yiu, 2007). All these combined have made the proliferation of disputes a regular phenomenon of the construction projects.

The process of dispute resolution lends itself to third party intervention (Fenn*et al*., 1997). Over the past two decades the construction industry has made tremendous progress in developing more efficient methods of dispute prevention and resolution. In China, for instance, flexible out-of-court dispute resolution (Alternative Dispute Resolution) mechanisms are the preferred options for

locals and foreigners wishing to bypass the uncertainties associated with the country's judicial system (Chan, 1997).

It has been pointed out that the use of Alternative Dispute Resolution (ADR) techniques has gained great momentum in the public sector during recent years in the construction industry (Cheung, 1999; Yousefi e*t al*., 2010). For instance, governments have initiated the inclusion of ADR methods as an integral part of the dispute resolution procedure in the standard forms of contracts for use in Government projects. Important to note is that no single dispute resolution mode can be universally applied successfully to every individual case and the choice of the most suitable dispute clause to resolve the disputes depends on various factors including the nature of the dispute (Chau, 2007). Construction contracts in Uganda either employ Adjudication or Arbitration clauses. However, it is reported that, even with these measures in place the government loses substantial amounts of money to contractors. One such a loss is when it lost over Uganda shillings 8.5 billion ($3.32 million) of taxpayers' money in arbitration awards to the contractor over a dispute during the construction of 21km of the Northern Bypass (Lumu, 2007). Uganda Shillings 20 billion ($7.81 million) was lost by the National Social Security Fund (NSSF) in Litigation awards during the construction of 19 storey Worker's House building (Nsamba&Mugisha, 2009). This shows a weakness in the dispute resolution process which would have been countered by a well designed dispute resolution mechanism whose implementation would require an assessment of the suitability of a Dispute Resolution Method (DRM) to counter the likely disputes in a project right from contract formation. With the use of a suitable DRM, minimal losses will be incurred by either party to the contract.The objective of this paper is to identify factors affecting the choice of an ADRM and the suitability of the dispute resolution method to settle disputes arising from specific project risks in Uganda..

1.1 ALTERNATIVE DISPUTE RESOLUTION METHODS

Alternative dispute resolution (ADR) is a non-adversarial technique which is aimed at resolving disputes without resorting to court. Randall (1996) provides a comprehensive list of ADR methods used in the construction industry in USA as arbitration, negotiation, mediation, mini-trials, Rent-a-Judge, and dispute review beards. All these methods advocate for resolution of disputes without parties embracing the legal professionals and the confrontational approaches of the other methods. In Hong Kong the common forms of ADR in the construction industry include; mediation, dispute resolution advisor and adjudication (Cheung, 1999). In Uganda ADR is seen as those techniques alternative to litigation (Kiryabwire, 2005). In this study ADR was taken to include techniques such as negotiation, mediation, mini trial, rent -a –Judge, Dispute Review Boards, Expert determination, Adjudication and Arbitration.

1.2 ADVANTAGES AND CONSTRAINTS OF ADR

Specific studies about the different techniques of ADR identified the following as the advantages

in Table 1.

According to Brooker and Lavers (1997), the weaknesses of ADR are of two types:

  a) That ADR might share the main deficiencies of Litigation, because it would be hijacked by the legal profession. There is suggestive evidence that both sections of the legal profession, solicitors and barristers have already begun to seek a leading role in it.
  b)   That ADR might prove to be inferior to litigation in the following ways;

i) Use of ADR would indicate a weakness in one's case, compromising one's position in the overall picture of the dispute. ADR would reveal too much to the other side either of strategy or of substance.

Dispute resolution method	Key statements	Reference
Arbitration	Arbitration involves use of judges who understand the relevant technical issues and industry practices reduces the probability of unpredictable results, reduces costs and delays.	Galloway & Nielsen, 2011
	Arbitration is, in most cases, a cost-effective, expeditious, and efficient process that provides finality to a dispute. The arbitration award is final and binding, and easily enforceable in court.	Gardner, 2011
	The decision reached is final and binding and is usually enforced through the courts of any jurisdiction.	Gad *et al.*, 2011
Mediation	Mediation facilitates sustainability of a good working relationship between the disputants. It is relatively economical, parties have greater control over their preparation phase, leads to a quick resolution and enables continuity of construction work on site.	Kumaraswamy, 2010
	The parties retain full control over how their dispute is to be resolved , the mediation process is strictly confidential and designed to preserve the relationship among the parties involved.	Gad *et al.*, 2011
	Mediation has been recognized as an economical, faster method and with the flexibility in procedure.	Yan, 2010
	The use of mediation has been regarded as a flexible, cost-effective, and non-threatening way to dispute resolution.	Cheung &Yiu (2007)
Negotiation	Negotiation achieves objectives of decision makers while maintaining harmony, and reducing time, cost, and hostility.	Yousefi*et al.*, 2010
Dispute Resolution Board (DRB)	The decision issued by a DRB is often advisory in nature and not binding.	Gad *et al.*, 2011
Expert determination	The expert's decision is usually final and binding. This form is usually chosen in complex technical issues in which the parties themselves may lack the technical expertise.	Gad *et al.*, 2011
Rent-a-judge	The process can greatly expedite an outcome.	Randall, 1996
Mini-trials	The benefit is that the parties can often derive their relative positions without going through long, drawn out procedures. This will result into the dispute being resolved in days or weeks.	Randall, 1996

ii) ADR would jeopardize one's position in subsequent litigation by delaying or disrupting it

Table 1: Advantages of ADR

1.3 RISKS IN CONSTRUCTION

Risk in construction projects is derived from two main sources as indicated in Table 2.

- Project – specific risks are uncertainties existing in the project itself and may include the unexpected occurrences during the construction period that are inherent to the companies involved, or they may be determined by the nature of the project. They primarily lead to time and cost overruns or short falls in performance parameters of the completed project (Bing *et al.,* 1999).
- External risks are factors relating to national or regional or the local construction industry that significantly impact the success of the project. External risks originate from the competitive macro environment that the project operates within (Bing *et al*., 1999).

Table 1: Risk items in construction

Risk	Risk items	Reference
Project specific	Excessive demands and variations,	Gad *et al*., 2011
	Lack of communication and poor relationships	Kalayjian, 2000 & Gad *et al*., 2011
	Schedule delays, incomplete designs, late construction site possession, inclement weather, unforeseen ground conditions,	Kalayjian, 2000
	Cost overruns from ambiguous project scope, unclear project boundaries, inaccurate estimation, price fluctuations	Kalayjian, 2000
External risks	Political risks including inconsistencies in policies, changes in laws, import restrictions, war, revolution and civil disorder.	Kapila & Hendrickson, 2001;Bing *et al*., 1999; Zhi, 1995
	Legal Risks	Bing *et al*., 1999
	Environmental risks (catastrophes)	Bing *et al*., 1999
	Social risks (language barriers, different traditions and religious back ground	Bing *et al*., 1999

2.0   Methodology

The subjects of this study came from a population of practitioners with Contractors, Consultants and Government organizations that are involved in construction. The researcher obtained a list of contractors from Uganda National Association of Building and Civil Engineering Contractors (UNABCEC) and a list of consultant firms from the Uganda Association of Consulting Engineers (UACE). For the case of client organizations; Ministries, Departments and Agencies (MDAs) of government involved in routine construction, procurement and contract management were considered. Top technical managers were selected because such categories of people are believed to be knowledgeable about contract management and dispute resolution in Uganda. The questionnaire was tested with academics and professionals having experience in this area before being subjected to the targeted respondents

A target of 120 respondents from the population was considered. A total 60 respondents were targeted in the contractors category, 30 for consultants and 30 to clients' organizations. The respondents were required to rank the attributes of ADR and the risk items on a scale of 1 to 5.Data collected from the questionnaire surveys were analysed using statistical data analysis tools with the aid of SPSS 17, it was then tabulated to obtain relationships and divergences.

The coefficients of variations were used as a measure of the respondent's priority ranking. A principal component factor analysis was performed on the set of data obtained from the rankings to identify the interrelations among the different attributes from which the factors affecting the choice of ADR were derived and the most important factors were identified after ranking all of the factors. The risk items were ranked and t-test carried out to determine the significant enablers of disputes in the construction industry.

3.0 RESULTS AND FINDINGS

3.1 RESPONSE RATE

The overall response rate was 51%. The response rate for Contractors was 50%, for Consultants was 67% while that of client organizations was 37%. The gross total of the responses was 61 of which 30 were for contractors, 20 consultants and 11 for client organizations.

3.2 IMPORTANCE RANKING OF THE ATTRIBUTES OF ADR

Responses from clients, consultants and contractors were combined to give a basis for collective analysis.

Basing on the results in Table 3, the respondents identified remedy as the most significant attribute of ADR determining its choice with the lowest coefficient of variation of 0.173; this was closely followed by speed with coefficient of variation of 0.1954, fairness (0.2116), control (0.2199) and communication (0.2234). The high rank for remedy and speed can be justified from the point of view that projects have need such as timeliness of completion (Hewitt, 1985 and Alinaitwe, 2008) and as a result practitioners would not be willing to engage in processes that are time wasting in nature. The respondents ranked the attributes 'relationships' and 'enforceable' the lowest. This means that these have the lowest significance in their choice for use of ADR. The respondents' low choice for 'enforceable' could be due to the fact that ADR leaves the disputants with an option of appealing to other courts in case of dissatisfaction therefore rendering the result of ADR process not enforceable.

3.3 RESULTS OF THE PRINCIPAL COMPONENT FACTOR ANALYSIS

The Principal Component Factor Analysis (PCFA) was performed by SPSS 17 program. The Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy was 0.549, which is greater than 0.5, hence considered acceptable (Coakes, 2005). The Bartlett's Test of Sphericity is 301.110 with p-value of 0.000. These indicate that the sample data were adequate for the purpose of carrying out Factor Analysis. Four factors with Eigen values greater than 1 were extracted. Factor Matrix after VARIMAX rotation is presented in Table 4 which gives the final statistics of the Principal Component Factor Analysis. The results show that four (4) factors were extracted as follows; Factor 1 comprises of three (3) items with factor loadings from 0.683 – 0.795, factor 2 has three (3) items with factor loadings from 0.533 – 0.830, factor 3 with four (4) items with factor loadings from 0.535 – 0.815 while factor 4 has two (2) items with factor loadings 0.619 – 0.912.

Table 3: Ranking of the attributes of ADR

Variable	Mean	Std. Deviation	Coefficient of variation	Rank
Remedy	3.8000	0.6587	0.1733	1
Speed	4.1167	0.8045	0.1954	2
Fairness	3.3500	0.7089	0.2116	3
Control	3.9000	0.8577	0.2199	4

Communication	3.8500	0.8601	0.2234	5
Flexibility	3.4500	0.7903	0.2291	6
Privacy	3.6000	0.9057	0.2516	7
Bindingness	3.5500	0.9284	0.2615	8
Economy	4.0500	1.1112	0.2744	9
Confidentiality	3.8000	1.1016	0.2899	10
Relationships	3.7167	1.1061	0.2976	11
Enforceable	3.4667	1.1118	0.3207	12

3.4 INTERPRETATION OF THE FACTORS AFFECTING THE CHOICE OF ADR

From Table 4, the attributes extracted as significant for factor 1 are: Economy, Speed and Control. The first two attributes address the benefits that may result from a successful ADR process (Cheung, 1999) whereas Control relates to the nature of the process of ADR (Cheung *et al*., 2002).

Factor 2 includes the attributes: Communication, Relationship and Remedy. The three attributes are inter – linked in that if good communication is exhibited between the parties then a strong working relationship will be developed and thus a remedy to the dispute will be easily got. According to Cheung *et al* (2002) these attributes address the ability of the ADR process to produce creative solutions; through effective communication and that the scope of the remedy to the dispute is comprehensive enough to satisfy the interests of the parties.Factor 3 included attributes: Flexibility, Fairness, Privacy and Confidentiality. It is apparent that these relate to the nature of the proceedings critically designed to avoid the dispute becoming known to public (Cheung, 1999). Factor 4 includes attributes: Enforceable and Bindingness; these address the settlement agreement as may be obtained in the ADR process (Cheung *et al.,* 2002).

Table 3: Results of the PCFA (Rotated Factor Matrix) for the ADR attributes

Attribute	Factor			
	1	2	3	4
Economy	0.795	0.293	0.271	0.139
Control	0.750	0.148	0.293	
Speed	0.683	0.394	-0.157	0.145
Communication	0.342	0.830	0.181	
Relationships	0.144	0.746		0.140
Remedy	0.348	0.533	0.324	0.229
Flexibility	0.237	-0.130	0.815	0.137
Fairness	-0.112	0.110	0.731	0.428
Privacy	0.328	0.338	0.542	-0.144
Confidentiality	0.360	0.469	0.535	-0.274
Enforceable	0.260		0.165	0.912
Bindingness		0.180		0.619

Therefore, the factors which affect the choice of ADR were found out to be;
  (i)   Benefits resulting from a successful ADR process
  (ii) Ability of ADR to produce creative solutions
  (iii) Nature of the proceedings of ADR
  (iv) Nature of the settlement agreement

3.5 RISKS AS A SOURCE OF DISPUTES

From Table 5, excessive variations, followed by cost overruns, schedule delays and design and construction issues were rated to have the highest 'fueling' effect to construction disputes during project execution. It is important to note that these risks fall under project specific category of risks (Bing *et al*., 1999). All these risks have got mean ratings of more than 3.0 which implies that they are having at least a fairly significant effect on 'fueling' construction disputes in Uganda.

Local customs backgrounds and different cultures were ranked the lowest enablers of construction disputes. These low values in the rankings suggest that these risks do not have significant effects on causation of disputes. It has also been established that these risks fall under the external risks category of risks (Bing *et al*., 1999). The low rank of local customs background and different cultures could be justified considering the fact that the sampling involved only consultants and contractors with membership to UACE and UNABCEC respectively and did not cater for foreign companies.

One sample t-test was used to test the level of significance of the various risks as enablers of disputes and the results are presented in Table 6.The test value was set at 3.0 that corresponds to the neutral position of average (that is; the risk has a fairly significant effect on the project) on the scale in the questionnaire.

The null hypothesis $H_0:\mu=\mu_0$ (no significant difference between sample mean and the mean of the population) against the alternative hypothesis $H_1:\mu\neq\mu_0$ where μ is the population mean and μ_0 represents the critical rating above which the risk is considered significant. It can be seen from Table 6 that seven out of the twelve risks have significant levels less than 0.05.The decision was to reject the null hypothesis for the seven risks that have significant levels less than 0.05. For the seven risks there is a significant difference between the sample mean as viewed by the respondents and the population mean. This therefore suggests that the seven risks namely, excessive variations, schedule delays, cost overruns, design and construction issues, foreign exchange rates, different cultures and local customs background are the significant enablers of disputes on construction projects as viewed by the respondents.

Table 5: Overall view of the respondents

Risk item	Mean	Std. Deviation	Coefficient of variation	Rank
Excessive Variations	4.09	0.866	0.212	1
Cost over runs	4.29	0.97	0.226	2
Schedule delays	3.94	1.099	0.279	3
Design and construction issues (Technical issues)	3.91	1.164	0.298	4
Economic fluctuations	3.32	1.273	0.383	5
Inflation	3.29	1.268	0.385	6
Policy inconsistencies	2.91	1.24	0.426	7
Lack of Communication	3.12	1.533	0.491	8
Change in Laws and Regulations	2.62	1.326	0.506	9
Foreign Exchange Rates	2.35	1.323	0.563	10
Different Cultures	1.29	1.169	0.906	11
Local customs backgrounds	1.27	1.232	0.97	12

Table 6: One sample t- test for the risks

Risk item	Test Value = 3.0						95% confidence interval of the difference	
	Mean	Std. deviation	T	df	Sig.(2-tailed)	Mean Difference	Lower	Upper
Excessive Variations	4.090	0.866	7.329	54.000	0.000	1.088	0.790	1.390
Lack of Communication	3.120	1.533	0.448	54.000	0.657	0.118	-0.420	0.650
Schedule delays	3.940	1.099	4.992	54.000	0.000	0.941	0.560	1.320
Cost over runs	4.290	0.970	7.778	54.000	0.000	1.294	0.960	1.630
Design and construction issues (Technical)	3.910	1.164	4.566	54.000	0.000	0.912	0.510	1.320
Policy inconsistencies	2.910	1.240	-0.415	54.000	0.681	-0.088	-0.520	0.340
Change in Laws and Regulations	2.620	1.326	-1.681	54.000	0.102	-0.382	-0.850	0.080
Economic fluctuations	3.320	1.273	1.482	54.000	0.148	0.324	-0.120	0.770
Inflation	3.290	1.268	1.353	54.000	0.185	0.294	-0.150	0.740
Foreign Exchange Rates	2.350	1.323	-2.852	54.000	0.007	-0.647	-1.110	-0.190
Different Cultures	1.290	1.169	-8.512	54.000	0.000	-1.706	-2.110	-1.300
Local customs backgrounds	1.270	1.232	-8.056	53.000	0.000	-1.727	-2.160	-1.290

3.6 RISK – DRM MATRIX

The Risk –DRM matrix is presented in Table 7 and represents the respondents' views on the suitability of the DRM for a particular risk. In Table 7, '√' indicates that the dispute arising from such a project risk can be solved using the DRM in the top most row whereas '×' indicates the converse.

Table 7: Risk – DRM matrix

Risk category	Risk No.	Risk item	Negotiation	Mediation	Adjudication	Rent-a Judge	Dispute review board	Arbitration	Expert determination
Project specific	1	Excessive variations	√	×	√	×	×	×	×
	2	Lack of communication	√	√	×	×	×	×	×
	3	Schedule delays	√	×	×	×	√	×	√
	4	Cost overruns	√	×	√	×	√	×	√
	5	Design and construction issues	√	×	×	×	√	×	√
External	6	Policy inconsistencies	√	×	√	×	√	√	√
	7	Changes in laws and regulations	×	×	√	×	√	√	√
	8	Economic fluctuations	√	×	×	×	√	×	√
	9	Inflation	√	×	×	×	√	×	√
	10	Foreign exchange rates	√	×	×	×	√	√	√
	11	Different cultures	√	√	×	×	×	×	×
	12	Local customs backgrounds	√	√	×	×	×	×	×

4.0   CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

Twelve attributes of ADR were identified and the key attributes which determine its choice for use were ranked as Remedy, speed, Fairness and control. Relationships and enforceability were ranked lowest.Following the principal component factor analysis; four factors affect the users' choice of ADR. The factors were identified as; the benefits that may result from a successful ADR process, ability of the ADR process to produce creative solutions, Nature of the proceedings and Settlement agreement.Seven (7) out of twelve (12) risks were identified as significant enablers of disputes in construction projects. These include; excessive variations, schedule delays, cost overruns, design and construction issues, foreign exchange rates, different cultures and local customs background.

4.2 RECOMMENDATIONS

The researcher identified that there is need to consider the nature of a project before choice of a DRM. This is evidenced by the DRM – Risk matrix which shows the suitability of a DRM for the various risks. It is recommended that the construction industry in Uganda should put more emphasis on the suitability of a DRM to settle disputes during contract design and at implementation stage. Including suitable dispute resolution clause(s) at contract formation stage will save time and money spent on unrealistic and unsuitable DRMs at the time of dispute resolution.

5.0 REFERENCES

Alinaitwe, M.H (2008), Improvement of Labour Performance and productivity in Uganda's Building industry. Lund University, Lund

Atlas, F. Nancy, Stephen, K. Luber, Wendy, Trachete – Huber (2000), Alternative Dispute Resolution, The Litigator's Handbook. AAA – Publishers, ISBN 1-57073-812-2.

Bing, L., Tiong, R. L.-K., Fan, W. W., and Chew, D. A.-S. (1999), Risk Management in International Construction Joint Ventures. *Journal of Construction Engineering Management, 125(4), 277–284.*

Brooker, P. and Lavers, A. (1997), Perceptions of Alternative Dispute Resolution as Constraints upon its use in the UK Construction Industry. *Journal of Construction Management and Economics 15, 519 – 526*

Chan, H. W. Edwin (1997), Amicable Dispute Resolution in the People's Republic of China and its Implications for Foreign-related Construction Disputes. *Journal of Construction Management and Economics 15, 539 - 548*

Chan, H. W. Edwin and Suen, C. H. Henry (2005), Dispute Resolution Management for International Construction Projects in China. *Journal of Management Decision 43(4), 589-602*

Chan, H.W. Edwin; Suen, C. H. Henry and Chan, K. L. Charles (2006), MAUT-Based Dispute Resolution Selection Model Prototype for International Construction Projects. *Journal of Construction Engineering and Management, 132(3), 444 – 451.*

Chau, K. W (2007), Insight into Resolving Construction Disputes by Mediation/Arbitration in Hong Kong. *Journal of Professional issues in Engineering Education and Practice, ASCE, Vol. 133(2), 143-147.*

Cheung, Sai-On (1999), Critical Factors Affecting the Use of Alternative Dispute Resolution Processes in Construction. *International Journal of Project Management ,17(3), pp. 189- 194*

Cheung S., Suen, C. H. H. and Lam, Tsu-lp (2002), Fundamentals of Alternative Dispute Resolution Processes in Construction. *Journal of Construction Engineering and Management, Vol. 128 (5), 409-417*

Cheung, Sai-On &Yiu, T.W. Kenneth (2007) A Study of Construction Mediator Tactics— Part I: Taxonomies of Dispute Sources, Mediator Tactics and Mediation Outcomes. *Building and Environment 42, 752–761*

Coakes, J. Sheridan (2005), SPSS: Analysis Without Anguish: Version 12.0 for Windows, John Wiley & Sons, Austria, ISBN 0470807369.

Fenn, P., Lowe, D., and Christopher, Speck (1997), Conflict and Dispute in Construction. Journal of *Construction Management and Economics 15, 513 – 518*

Gad, M. Ghada, Kalidindi N. Satyanarayana, Shane Jennifer & Strong Kelly (2011), Analytical Framework for the Choice of Dispute Resolution Methods in International Construction Projects Based on Risk Factors. *Journal of Legal Affairs and Dispute Resolution in Engineering and construction 3(2), 79 – 85.*

Gardner, "Bud",W. Winston (2011), Litigation or Arbitration: View from the Trenches *Journal of Legal Affairs And Dispute Resolution in Engineering And Construction 55-57*

Galloway, D. Patricia and Nielsen, R. Kris (2011), Engineer's "Cliff's Notes" for Understanding the Arbitration Process .*Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, 3(2), 71-78*

Hewitt, R.A. (1985), The Procurement of Buildings: Proposals to Improve the Performance of Industry. *The Australian Journal of Construction Economics and Buildings, 2(1), 70 – 80.*

Kalayjian,W. H. (2000), Third World Markets Anticipating the Risks, *Civil Eng. ASCE, 70(5), 56–59*

Kapila, Prashant and Hendrickson, Chris (2001), Exchange Rate Risk Management in International Construction Ventures. *Journal of Management in Engineering, 17(4), 186 – 191.*

Kiryabwire, W.M. Geoffrey. (2005), Alternative Dispute Resolution: A Ugandan Judicial Perspective. *A paper delivered at a continuation Seminar for Magistrates Grade One at Colline Hotel Mukono.pp2*

Kothari, C. R. (2004), *Research methodology, Methods and Techniques*. WishaPrakashan, New Delhi

Kumaraswamy, Mohan (2010), Mediation—Past, Present, and Prospects: Hong Kong Perspective. *Journal of legal affairs and dispute resolution in engineering and construction 194-197*

Ling, Florence Yean Yng and Hoang, Vivian To Phuong (2010), Political, Economic, and Legal Risks Faced in International Projects: Case Study of Vietnam. *Journal of Professional Issues in Engineering Education and Practice, 136 (3), 156 - 164*

Lumu, D. (2007), Funds diverted to Northern By-pass Project. *The Observer , 28. 11. 2007, Vol. 23, pp 9*

Lyer, K. C., Chaphalkar.B.N, Joshi, A. G (2008), Understanding Time Delay Disputes in Construction Contracts. *International Journal of Project Management, 26, 174 – 184*

Nsamba, H. &Mugisha, A. (2009), NSSF Loses Sh20bn Case. *The New Vision August, 25,2009, Vol. 8, pp12.*

Randall, J. Essex (1996), Means of Avoiding and Resolving Disputes During Construction. *Journal Tunneling and Underground Space Technology,11(1), 27-31*

Smith, Stephanie and Martinez, Janet (2009), Analytic Framework for Dispute System Design. *Harvard Negotiation Review, 14 (123), 123 - 169*

Van, Veen, H. David, Kreutzwiser, D. Reid and Rob, C. de Loe (2003), Selecting Appropriate Dispute Resolution Techniques: A Rural Water Management Example, *Journal of Applied Geography 23, 89 – 113.*

Yan, Anna (2010), Mediation for Public Construction Contracts Under the GPA in Taiwan. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction, 2(3), 141 – 147.*

Yousefi, S. Hipel ,W. K and Hegazy, T. (2010) Considering Attitudes in Strategic Negotiation over Brownfield Disputes *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction 2(4), 240-247*

Zhi, H. (1995), Risk Management for Overseas Construction Projects. *International Journal of Project Management, 13(4), 231–237.*