Influence of Business Strategy and Contract Operational Environment on Relationship between Judicial Evaluation Model and Resolution of Contractual Disputes in Construction Industry: the case of Road Construction Projects in Kenya.

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Abstract
Contractual Disputes are common in construction industry. Areas of contractual disputes in infrastructure projects often include schedule performance, payment, quality of works and variations. Dispute resolution processes provide platform for parties to assert their entitlements. However, if not promptly, effectively and consensually resolved, disputes often result into poor relationship between contracting parties, compromise of quality and scope, poor cash flows, suspension/abandonment of works and even termination of contracts. Effective dispute resolution process should take into consideration the commercial and environmental factors that preserve relationships for future business opportunities. Dispute resolution processes should also be alive to contractual provisions and enabling legal and regulatory frameworks within which the investment operates. For success ad continuity of investment, dispute resolution methods should lend themselves to the dynamics of business strategy and contract operational environment. This study set out to examine the influence of Business Strategy on resolution of contractual disputes in road construction projects in Kenya, and to determine the influence of Contract Operational Environment on resolving contractual disputes in road construction projects in Kenya. A correlation design with descriptive statistics; mode, mean and standard deviation were used for the analysis data collected from senior monitoring and evaluation staff of the contracting parties. ANOVA and Regression models were deployed for inferential analysis. Qualitative information was organized into themes and triangulated with quantitative data for an in-depth interpretation of results. The study found that business strategy has a weak positive correlation with resolution of contractual disputes (r = 0.165, p = 0.01) while contract operational environment has a near moderate but positive relationship with resolution of contractual disputes (r = 0.305, p = 0.01). However, regression analyses established that there is significant intervening and moderating influence of business strategy and contract operational environment on resolution of contractual disputes respectively.
Keywords: *Business Strategy; Contract Operational Environment; Resolution of Contractual Disputes.*

I.   Introduction

Contractual disputes in construction industry is commonplace and the road construction subsector is not any different.   Dispute resolution in Construction Projects is often approached using Judicial Evaluation Model where civil litigation process and Alternative Dispute Resolution(ADR) mechanisms such as adjudication, arbitration and mediation are deployed to resolve contractual disputes. However, for the model to succeed in consensually resolving the dispute, the parties must appreciate that the business need continuity and that growth requires strategies that are non-adversarial to keep good business relationships for future engagements. This is often anchored on the value prepositions of good will and action sin good faith to bring the equilibrium between sectarian interests such as maximization of profits by the Contractor and maximization of utility by the Employer (Worthen, 1990)

Business strategy is a long-term plan designed to achieve objectives and goals (Cheung, 1999). According to Robinson and John (2011), client retention and cost minimization/profit maximization are often long-term plans that ensure survival of the business. When disputes are imminent in a road construction projects, business strategy intervenes in choosing component(s) of judicial evaluation model to deploy for

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resolution of a contractual disputes depending on the desired outcome of the dispute resolution by that component. Parties tend to go for non-adversarial options of the model which preserve good business relationship and good will for client retention (Rogers, 2000).

Contract Operational Environment consists of external factors that confound the choice of judicial evaluation model in its entirety or its components to be applied in resolution of contractual dispute in road construction projects. Some forms of road construction contracts may not provide for certain evaluation models or may define a hierarchy/precedence of application of the components of judicial evaluation model. Construction contracts operate under a legal framework of the country where the development is being done (Gramberg and Teacher, 2005). Some legal systems may compel some contractual disputes to be solved by other evaluations models outside the judicial model family, for example, expert judgment. Alternatively, the legal framework may prefer one variant of judicial evaluation model to the other e.g. many jurisdictions have institutes of arbitration to provide evaluation solutions outside the formal courts. Type of contract in construction industry for example, the FIDIC forms, the European Union (EU) forms, and the World Bank forms have different preferences on how contractual disputes should be evaluated and resolved(Rajiv, 2010) and as such may prescribe a preference of a model or a variant of judicial evolution model.

II. Literature Review

Business strategy is a set of processes investors use to identify, acquire, and nurture/retain clients and business opportunities to drive growth and profitability (Iyer and Jha, 2005). It is the creation of long-term value for an organization from customers, markets, and relationships. In a highly competitive commercial environment, people are keen in preservation of business relationships by employing business strategies of survival against their market competitors. Client/Customer retention and cost minimization/profit maximization are strategic measures in business environment. Rather than allowing valuable relationships to be destroyed by disputes and lose clients/customers, Alaknanda and Pimplikar, (2012) argue that business people seek to resolve their differences and build upon their common grounds; improve business alliance by identifying the benefits, responsibilities, and interests of partners. Angus and Robert (2007) have identified some of the disputes in business that require strategic intervention as those related to payment terms, letter of guarantee, documentation error, and contract drafting. In construction industry, the official relationship between the Contractor and the Employer is defined by the construction contract. However, beyond this contract, there is non-formal and non-contractual, but perhaps the more important relationship that defines strategic behavior of the parties (Dancaster, 2008). The employer is interested in working with a contractor who understands the commercial dynamics (Ahmed, Castillo, Kappangantula, 2007) beyond what is written in the contract. For example, the contract may provide for interest on delayed payments charged every day later than the due date for payment. In fact, many contracts allow the contractor to suspend works due to prolonged non-payment. However, the Employer expects the contractor to be realistic to the dynamics that result into such delayed payments and not rush into invoking suspension clauses just because it is his right under the contract (Gmmell and Entwistle, 2010). On the other hand, Gaustkil (2007) recognizes that commercial competition among the contractors is very stiff. Whereas this has left the contractors rather desperate to preserve business relationships in order to stay afloat, the Employer's position has become stronger because he has many contractors to choose from, most of whom are able and willing to work with him. This scenario affects evaluation of contractual disputes and puts the Employer's influence higher than the Contractor's.

Alongside the preservation of clients/customers, cost minimization strategy by the parties may accelerate the decision-making process and even the choice of dispute resolution model. Cost minimization and customer retention strategies often influence parties' willingness to conclude the disputes amicably using less adversarial models thus help in keeping business relationship (Hill and Wall, 2008). It can therefore be advanced those business strategies by construction firms influence the choice of judicial evaluation model option for resolution of contractual disputes. Because of strategic reasons (Angus and Robert, 2007) explain that business prefer resolution of dispute by ADR mechanism, not just because of speed and cost but also the fact that it offers less formal and simplified from which parties can negotiate and achieve a more flexible and creative decision. As much as parties tend to ignore the possibility of disputes when beginning a business endavour, disputes often arise. Contracts that include choices for dispute resolution methods can salvage business relationship which parties have worked so hard to cultivate. In comparison to litigation, (Dancaster, 2008) states that ADR mechanism is frequently a much cheaper way to resolve business disputes, it is faster and achieves more creative settlement.

From the foregoing literature, there seems to be concurrence among business scholars that good relationship is a strategic factor for business growth. This important relationship is however threatened by inherent disputes. Business people are awake to this fact and seek creative ways of resolving disputes, which ADR offers arrange of such ways than litigation which happens in public environment with no confidentiality

and with potential acrimony. Gautskil, (2007) further adds that most dispute arise from misunderstanding of contract terms, and the key to minimizing complications is to draft arbitration agreement at the onset of negotiation, before conflicts arise.

There are external factors that may affect the functioning of judicial evaluation model (Mulwa, 2008). Construction contracts operate under a legal framework of the country where the development is being done (Gramberg and Teacher, 2005). A country's legal system is normally supreme and above all other instruments of engagements. Legal systems may compel some contractual disputes to be resolved by other evaluations models outside the judicial model family, for example, expert judgment. Alternatively, the legal framework may prefer one variant/component of judicial evaluation model to the others. For example, many jurisdictions have institutes of arbitration which provide evaluation solutions outside the formal courts (Kodagoda, 2008). This leads to conceptualization that the legal context of the contract influences the choice and operation of judicial evaluation model and its influence on resolution of contractual disputes.

Illankoon, Tam, Khoa and Ranadewa (2019) explain that legal jurisdictions are not always prescriptive of dispute process or methods if the processes/methods, are in themselves moral and legal. In this regard dispute resolution process is deemed not legal if intimidation, coercion, and threats abound. The processes are expected to observe the cardinal principles of fairness, equity and respect for morals and law. The function of applicable law is therefore deemed to provide a reliable environment for any method of dispute resolution including litigation. The law is seen to be an enabler rather than a player in dispute resolution processes.

International treaties and protocols that regulate the use and exploitation of natural resources that are shared across nations can cause disputes and at the same time influence resolution of disputes (Acharya, Lee and Im, 2006). An example is the case of Nile dispute where Ethiopia's construction of a US $4 billion 6,000 megawatts Grand Renaissance Dam on the Blue Nile River. Whereas Ethiopia's position remains that the development will avail electric power to 65 million Ethiopians who lack regular power, Egypt and Sudan which are downstream, fear that the dam will greatly reduce their access to water. Egypt and Sudan have therefore accused Ethiopia of violation of Nile Treaty of 1902 with its amendments in the years 1929, 1959 and 2015 on the use of the shared resource. Mediation attempts, as defined in the treaty, headed by the African Union and United States of America have not yielded resolution yet (Al- Monitor, 2020) and Egypt has maintained that future negotiations would focus on developing a binding legal agreement on the rules for filling and operating the dam. This conflict is now a threat to diplomatic relationship among the three states and to peace in the region.

In addition to legal environment, construction contract formation follows several standard forms often referred to as 'types of contracts' (Emre and Pinar, 2014). The formations are designed for various Employer-Contractor engagement models such as Re-measurement contracts, Design-built Contracts, Engineer, Procure and Construct (EPC) contracts, Public Private Partnerships (PPP) among others (SKM Advisors, 2017). Prasanna (2008) explains that these engagements call for appropriate forms of contracts. The contracts include the FIDIC forms, the European Union (EU) forms, and the World Bank forms among many. The forms of contract have different preferences on how contractual disputes should be evaluated and resolved (Medden, 2001) and as such, may prescribe a preferred evaluation model or a variant of the same.

It has been observed that in Europe, the forms of contracts prefer adjudication, arbitration and litigation deployed in that order to resolve contractual disputes. in the eastern world (Far East and South-East Asia), the practice is to explore mediation and conciliation for dispute resolution while in the middle east, mediation premised on religious norms (Islam) is prevalent in dispute management. Noushad (2006) opines that external environment is a key factor in the choice of dispute resolution approach because it defines, within the contract, the first response parties adopt towards solving a dispute. The most common immediate responses are adjudication and arbitration. However, construction industry is increasingly becoming cognizant of the mediation and conciliation as important amicable settlement solutions.

III. Methodology

The study used correlation design to allow for quantitative approach to data collection, processing and analysis. The target population of the study was 1,017 people drawn from contracts and project evaluation staff in road construction projects in Kenya and stratified into 3 categories of implementation stakeholders: The Employer, the Contractor and the Engineer. This study used Krejcie and Morgan formula for sample size determination at 5% significance level to arrive at a sample size of 279 respondents. A stratified random sample was drawn based on the number of projects for every class of road (Table 1).

Table 1. *Sample Sizes by stratified random sampling.*

Road Construction Projects		Sample Sizes			
Class of Road	No. of Projects	Employer	Contractor	Engineer	TOTAL
Class A	35	29	29	29	87
Class B	36	30	30	30	90
Class C	42	34	34	34	102
TOTAL	113	93	93	93	279

Source of number of projects: Kenya National Highways Authority Report (2016).

The study used self-administered questionnaires to source information because it provided flexibility that the targeted participants would require given their complicated itineraries. The method enabled the respondents to fill in the questions at their convenience. Out of a total 279 questionnaires that were distributed, 250 were returned representing a return rate of 89.61%. Employer staff returned 86 out of 93 questionnaires which is 92.47% while return rate of questionnaires among Contractor staff was 80 out of 93(86.02%). Engineer staff achieved a return rate of 84 out of 93(90.32%). Table 2 shows the return rate per stratum.

Table 2. *Questionnaire Return Rate*

Road Projects & Class of Roads	Employer - distributed and returned			Contractor - distributed and returned			Engineer - distributed and returned			TOTAL - distrubuted and returned		
	Distributed	Returned	% response	Distributed	Returned	% Response	Distributed	Returned	% Response	Distributed	Returned	% Response
Class A	30	30	100.00	29	23	79.31	29	27	93.10	87	80	91.95
Class B	30	30	100.00	30	29	96.67	30	23	76.67	90	82	91.11
Class C	33	26	78.79	34	28	82.35	34	34	100.00	102	88	86.27
TOTAL	93	86	92.47	93	80	86.02	93	84	90.32	279	250	89.61

Primary data was edited for completeness and consistency, coded and classified before feeding into software (Microsoft Excel and SPSS) for analysis. Descriptive and inferential statistics were used in analysis of data. Analysis of Variance (ANOVA) and Regression models were deployed. Rank Analysis was carried out using Relative Importance Index (RII) and concordance among the contracting parties were inferred from dispersion analysis.

IV.   Results and Discussions

The results of the study were organized, interpreted and discussed under seven thematic areas. These included participants work experience, occurrence of contractual disputes, common areas of contractual disputes, desired outcomes of consensual resolution of contractual disputes, use of civil litigation process and consensual resolution of contractual disputes, use of ADR mechanism and consensual resolution of contractual disputes, and influence of judicial evaluation model on consensual resolution of contractual disputes. The themes are presented and discussed under the following subsections.

Work Experience of Respondents
The respondents were asked to indicate the level of work experience in construction project management and evaluation on an ordinal scale of 1-3 years, 4-7 years, 8-10 years and over 10years. The results are as shown in Table 3 below.

Table 3. *Work Experience*

Category	No of Respondents	1-3 years		4-7 years		8-10 years		Over 10 years		TOTAL %
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Employer	86	14	16.3	16	18.6	19	22.1	37	43.0	100.0
Contractor	80	22	27.5	15	18.8	11	13.8	32	40.0	100.0
Engineer	84	16	19.0	18	21.4	15	17.9	35	41.7	100.0
TOTAL	250	52	20.8	49	19.6	45	18.0	104	41.6	100.0

The study found out that that 52 out of 250 (20.8%) of the respondents have between 1-3 years of experience, 49 out of 250(19.6%) of the respondents are 4-7 years of experience, 45 out of 250 (18.0%) are 8-10 years of experience while 104out of 250(41.6%) are over 10 years' experience. Across the categories, 198 out of 250(79.2 %) of the respondents have work experience of 4 years and above indicating that experience, as a characteristic, is homogeneous among respondents.

From the results, the study established that the respondents are not highly differentiated by work experience across the various categories. This characteristic improved the precision/reliability of the study since it was less likely that many responses would be statistical outliers, which would skew the data. Brayman and Bell (2011) recommends that differentiation among respondents should be kept as low as possible (under 30%) to control large variances within the data and to minimize stratification into several layers of common characteristics.

Occurrence of Contractual Disputes

To establish the frequency of occurrence of contractual dispute, the respondents were asked to state how often contractual disputes between the Contractor and the Employer occur during the execution of the road projects.
The finding is as shown in Table 4.

Table 4. Occurrence of Contractual Disputes

Occurrence of Contractual Dispute	Frequency	Percentage
Very rarely	0	0.0
Rarely	26	10.4
Sometimes	126	50.4
Frequently	98	39.2
Very frequently	0	0
Total	250	100.0

The findings show that all the respondents agreed that contractual disputes occur in the road construction projects with none reporting 'very rarely' and 'very frequently'. Over 89.6% of the respondents reported occurrence of contractual disputes at the scale of 'Sometimes' and 'Very frequently'. The findings underscore importance of consensual resolution of disputes; and confirms the findings of (Elyamany et al, 2007) that contractual disputes in road construction projects are frequent and resulting for over 60% of suspension and termination of projects.

Civil Litigation Process and Resolution of Contractual Disputes

The study interrogated the use of civil litigation in consensual resolution of contractual disputes. The respondents were asked to state how often civil litigation is used in resolving contractual disputes on a Likert Scale of 'Very frequently used'(VFU), 'Frequently used'(FU), 'Sometimes used'(SU), 'Rarely used' (RU) and 'Very rarely used'(VRU) corresponding to values of 5, 4, 3, 2 and 1 respectively. Results were as given in Table 5.

Table 5. Use of Civil Litigation in Consensual Resolution of Contractual Disputes

Use of Civil Litigation	Frequency	Percentage
Very rarely used	0	0.0
Rarely used	88	35.2
Sometimes used	138	55.2
Frequently used	24	9.6
Very frequently used	0	0.0
Total	250	100.0

The results show that most respondents 138 out of 250 (55.2%) reported that civil litigation was sometimes used in disputed resolution. 88 out of 250 (35.2%) of the respondents said that civil litigation was rarely used while 24 out of 250(9.6%) of respondents reported frequent use of civil litigation. No respondents reported 'very frequent use and 'very rarely' use of civil litigation. This finding shows that all respondents agree that civil litigation has a role in resolution of contractual disputes. However, it should not be overused (very frequently used = 0%) nor ignored (very rarely used = 0%).

A simple linear regression analysis was performed of resolution of contractual disputes on civil litigation process to establish the linear relationship

The results were as given in Table 6

Table 6. *Linear Regression of Civil Litigation Process and Consensual Resolution of Contractual Disputes*

Model		Unstandardized Coefficient		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	18.517	1.481		12.500	.000
1	Civil litigation Process	-.023	.035	-.041	-.644	.0520

Dependent Variable: Consensual Resolution of Contractual Dispute

The results show that the linear relationship of the form, **y = a + bx,** between the consensual resolution of contractual dispute and civil litigation process is defined by:

Consensual Resolution of Contractual Dispute = **18.517 - 0.023** *of Civil Litigation Process*

The results suggest that a unit increase in civil ligation process results into -0.023 units increases (which is actually a decrease) in consensual resolution of contractual disputes. This means that consensual resolution of contractual disputes reduces by 0.23 units for every unit increase civil litigation process. The negative relationship between the dependent and independent variables suggests the inability of civil litigation process to support consensus in a resolution of disputes. This finding supports those of (Wolf, 2009; Thudson, 2008; and Popham and Carlson 2013) which stated that civil litigation process is characteristically elaborate, inquisitorial and adversarial. Likewise, Ghada (2012) observes that; being strongly anchored on evidentiary records, litigation propagates injustices in many cases where the truth is non-evidentiary. Since the disputants initiate legal action against one another, there is a natural tendency for them to view each other as enemies which makes it difficult to achieve consensual resolution over dispute. The objectivity of litigation process and the value-orientation of consensus are converse and therefore exhibits negative relationship.

ADR Mechanism and Resolution of Contractual Disputes

The study investigated the use of ADR (Arbitration, Adjudication and Mediation) in consensual resolution of contractual disputes. The respondents were asked to state how often ADR is used in resolving contractual disputes on a Likert Scale of 'Very frequently'(VF), 'Frequently'(F), 'Neutral(N), 'Rarely' (R) and 'Very rarely '(VR) corresponding to values of 5, 4, 3, 2 and 1 respectively. The results were as given in Table 7.

Table 7. *Use of ADR Mechanism in Resolution of Contractual Disputes*

No.	Statements	n	VF 5	F 4	N 3	R 2	VR 1	Mean	Std. (±)
13(a)	Use of Arbitration to solve contractual disputes	250	29 (11.6%)	42 (16.8%)	179 (71.6%)	0 (0%)	0 (0%)	3.40	0.69
13(b)	Use of Adjudication to solve contractual disputes	250	0 (0%)	104 (41.6%)	69 (27.6%)	61 (24.4%)	16 (6.4%)	3.04	0.96
13(c)	Use of Mediation to solve contractual disputes	250	15 (6.0%)	89 (35.6%)	57 (22.8%)	73 (29.2%)	16 (6.4%)	3.06	1.07

The use of Arbitration was reported as very frequent by 29 (11.6%) respondents, frequently used by 42(16.8%) respondents while 179(71.6%) respondents were neutral. No respondents reported rare of very rare use of arbitration in resolution of contractual disputes. Use of adjudication was reported to be very rare by 16 respondents (6.4%), rare by 61 respondents (24.4%), neutral by 69 (27.6%) and frequent by 104(41.6%) respondents. However, no respondent reported use of adjudication to be very frequent (0%). Use of mediation attracted responses across the scale with 15(6.0%) respondents saying that it was very frequent, 89(35.6%) frequent, 57(22.8%) neutral while rare and very rare recorded 73(29.2%) and 16(6.4%) respectively.

The means of responses across the variables were 3.4, 3.04 and 3.06; all tending to neutral (3) which indicate that use of arbitration, adjudication and mediation were equally likely to be deployed or not deployed in resolution of contractual disputes. However, the variability in the standard deviation is such that arbitration has the smallest dispersion from the mean (±0.69) which could qualify arbitration as the most likely consideration for resolution of contractual disputes. These findings concur with those of Glenn (2009), that the influence of ADR mechanism on consensual resolution of contractual disputes differ but can be ranked in a continuum to optimize the dispute outcome.

To determine the influence of ADR mechanism on consensual Resolution of contractual disputes, a linear regression analysis was undertaken. The results are as shown in Table 8.

***Table 8.** Linear Regression of ADR Mechanism and Consensual Resolution of Contractual Disputes*

Model		Unstandardized Coefficient		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant) ADR Mechanism	17.154	1.065		16.106	.000
1		0.520	.031	.695	.393	.019

Dependent Variable: Resolution of Contractual Dispute

The results show a standardized beta of 0.520 and a constant of 17.154 which when presented in linear relationship of the form, **y = a + bx**, becomes;

*Consensual resolution of contractual dispute = **17.154** + **0.520** ADR Mechanism.*

The results imply that a unit increase in use of ADR Mechanism results into 0.520 units of improvement in consensual resolution of contractual disputes. Therefore, increase in the use of ADR mechanism results into a positive improvement in consensual resolution of contractual disputes.

Influence of Business Strategy on Resolution of Contractual Disputes

The study conceived that there are certain strategies in the construction commerce that parties use for purposes of business development. The strategies may mediate/intervene resolution of contractual disputes, either in the choice of evaluation model or the resolution process itself. Some of these strategies target customer retention while others are geared toward profit maximization/cost minimization. The responded were presented with statements of the two indicators of business strategy to state their agreement with the statements on a Likert scale; strongly agree (SA), agree (A), neutral (N), disagree (D), strongly disagree (SD). The results are in Table 9.

***Table 9:** Business Strategy and Resolution of Contractual Disputes*

No.	Statements	n	SA 5	A 4	N 3	D 2	SD 1	Mean	SD (±)
(a)	Contracting parties avoid disputes to retain customers for long	250	51 (20.4%)	69 (27.6%)	10 (4.0%)	94 (37.6%)	26 (10.4%)	3.10	1.372
(b)	Contracting parties avoid disputes to maximize profits of business	250	0 (0%)	116 (46.4%)	73 (29.2%)	34 (13.6%)	27 (10.8%)	3.11	1.012
	Composite Mean and SD							3.105	1.205

On customer retention as a business strategy, out of the 250 respondents who participated in the study; 51(20.4%) strongly agreed, 69(27.6%) agreed while 10(4.0%) were neutral, 94(37.6%) disagreed while 26(10.4%) strongly disagreed. On the either side of the neutral position, there were 120(48%) on the affirmative (agree and strongly agree) as compared to 120(48%) who were not affirmative (disagree and strongly disagree). The distribution either side of the neutral position was therefore balanced. The mean was 3.10 which was very comparable to the composite mean of 3.105, while the standard deviation was ±1.372 above the composite std = ±1.205. This showed that the sample respondents were undecided on whether customer retention as indicator of business strategy causes parties to a road construction contract to avoid disputes. However, the common theme established by qualitative data was rather decisive. The quantitative data was triangulated with qualitative data, and one respondent had this to say:

"Resolution of disputes should consider protecting the relationship between the parties/customers. Adversarial resolutions of disputes are a threat to customer retention whereas consensual resolutions foster relationships that retain customers for future business."

The study therefore concluded that although the sampled respondents were undecided in the quantitative measurements, the qualitative analysis pointed to agreement that customer retention is pertinent to business strategy and intervenes in resolution of contractual disputes in road construction projects. The level of intervention is by parties avoiding disputes to retain customers for the sake of future business. Dancaster (2008) explained this that beyond the contract, there is a non-formal, non-contractual but perhaps the more important relationship that define strategic behavior that influences parties' approaches to dispute resolution. Angus and

Robet (2007), states that business dynamics call for strategic behavior in disputed resolution such that relationships are not destroyed.

The respondents were also presented with statement of profit maximization, the second indicator of business strategy. Out of 250 who participated in the study, there was none (0%) strongly agree, 116(46.4%) agree 73(29.2%) were neutral, 34(13.6%) disagreed and 27(10.8%) strongly disagreed. The mean statistic was 3.11which was also comparable with composite mean = 3.105 and the standard deviation was ±1.012 below the composite std = ±1.205. The modal response was 116(46.4%) which is agree and showed that many respondents agreed that profit maximization is business strategy that inform parties to avoid disputes. Both the mean and composite mean were practically the same at 3.11 and 3.105 respectively which tended to neural position and implied that the sampled respondents were generally undecided on whether profit maximization causes parties to avoid disputes.

These results imply that the sampled respondents were undecided on whether business strategy intervenes in resolution of contractual disputes in road construction projects in Kenya. However, the high modal response of profit maximization, agree = 116(46.4%), indicated that the business strategy could be intervening in the resolution of contractual disputes. These findings were triangulated with qualitative data and one the respondents stated as follows:

"Parties with high profit maximization attitudes foster adversarial approach to resolution of disputes and undermine consensus."

From the findings, the study concluded that, although the sampled respondents were largely undecided (composite mean = 3.105) and divergent (composite std = ±1.205), the qualitative information suggests that business strategy has an intervening influence and cannot be ignored in resolution of contractual disputes in road construction projects. The variable has potential of bringing consensus or dispute avoidance when parties consider future opportunities against short term entitlements. Hill and Wall (2008) agree that cost minimization and customer retention often influence parties' willingness to conclude disputes amicably using less adversarial means thus helps in keeping business relationship.

Pearson product-moment correlation was used to measure the strength and the direction of linear association of business strategy, judicial evaluation model and resolution of contratual disputes. The results of correlation were as presented in Table 10.

Table 10: *Correlation of Business Strategy, Judicial Evaluation Model and Resolution of Contractual Disputes in Road Construction Projects*

	Resolution of Contractual Disputes	Civil Litigation	ADR Mechanism	Business Strategy
Resolution of Contractual Disputes	1			
Civil Litigation process	-0.041	1		
ADR Mechanism	0.695**	0.008	1	
Business Strategy	0.165	0.092	0.580**	1

**. Correlation is significant at the 0.01 level (2-tailed)

The correlation matrix indicates that business strategy has weak positive correlation (r = 0.165, p = 0.01) with resolution of contractual disputes in road construction projects, also weak and positive correlation (r = 0.092, p = 0.01) with civil litigation process but moderately strong positive correlation (r = 0.580, p = 0.01) with ADR mechanism. The rather strong correlation between business strategy and ADR mechanism (r = 0.580, p = 0.01) compared to the week correlation with civil litigation process (r = 0.092, p =0.01) suggesting that business strategy works better when ADR mechanism is used for resolving contractual disputes than when civil litigation process is deployed for resolving disputes. This is attributable to the finding that business strategy explores consensus or avoidance to intervene in resolution of contractual disputes, which are also the characteristics of ADR mechanism in resolving contractual disputes in road construction projects.

To determine the mediating influence of business strategy on the relationship between judicial evaluation model and resolution of contractual disputes, a multiple linear regression analysis of the three variables was carried out and the model summary of the multiple regression of business strategy, judicial evaluation model and resolution of contractual disputes in road construction projects is presented in Table 11

Table 11: *Regression Model Summary for Business Strategy, Judicial Evaluation Model and Resolution of Contractual Disputes*

Model	R	R Square	Adjusted R Square	Std. Error the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F change
1	0.641a	0.412	.0399	2.470	0.010	7.890	3	246	0.043

a. Predictors: (Constant), Business Strategy, Alternative Dispute Resolution, Litigation

The R value of 0.641 indicates moderately high degree of correlation (negative or positive) between business strategy and the relationship between JEM and resolution of contractual disputes in road construction projects. R Square value of 0.412 indicates that the mediating influence of business strategy on the relationship of judicial evaluation model and resolution of contractual disputes explains 41.2% change in resolution of contractual disputes in road construction projects. This change influence is more   compared to 40.0% when business strategy does not intervene in the relationship, suggesting that business strategy improves the how parties use judicial evaluation model to resolve contractual disputes in road construction projects.

Hypothesis 1

H0: There is no significant mediating effect of Business Strategy on the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects in Kenya.

The null hypothesis was tested using ANOVA F-Statistic at 95% confidence level; to either reject or fail to reject at p value, p = 0.5, level of significance. The results of the test are given in Table 12

Table 12*: ANOVA Statistics for Business Strategy, Judicial Evaluation Model and Resolution of Contractual Disputes in Road Construction Projects*

Model	Sum of Squares	df	Mean Square	F	Sig.
1					
Regression	14.446	3	4.815	7.880	.043b
Residual	1500.898	246	6.101		
Total	1515.344	249			

a. Dependent Variable: Resolution of Contractual Dispute
b. Predictors: (Constant), Business Strategy, Alternative Dispute Resolution, Litigation

The ANOVA F-statistic; $F_{(3, 246)} = 7.88$ at p = 0.043 shows that the regression of business strategy, is a significant mediator ($p < 0.05$) in the relationship between judicial evaluation model and resolution of contractual disputes.

Therefore, the study rejects the null hypothesis and concludes that there is significant mediating effect of Business Strategy on the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects in Kenya.

The results of hypothesis test were further confirmed by use of coefficients of the regression to assess the mediating influence of business strategy on the relationship between judicial evaluation model on resolution of contractual disputes in road construction projects and the results were as given in Table 13.

Table 13: Coefficients of Regression of Business Strategy, Judicial Evaluation Model and Resolution of Contractual Disputes

Model		Unstandardized Coefficient		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.803	1.776		10.588	.000
	Civil Litigation	-0.020	0.036	-.037	-.567	.571
	ADR Mechanism	.611	.032	028	437	.662
	Business Strategy	.420	.032	.083	1.302	.194

Dependent Variable: Resolution of Contractual Dispute

The results show a standardized beta values of -020 for civil litigation process and 0.611 for ADR mechanism, 0.420 for business strategy and a constant of 18.803 which when presented in bi-variate linear relationship of the form, $y = \beta o + \beta 1 X1 + \beta 2 X2 + \beta 3 X3 + \varepsilon$, assuming no error in the model becomes;

Resolution of contractual dispute = 18.803 + 0.611 ADR mechanism − 0.020 civil litigation process + 0.420 Business Strategy.

The model is interpreted that a unit increase in business strategy results into 0.420 units increase/improvement in resolution of contractual disputes in road construction projects. The results also show that with the intervening influence of business strategy, a unit increase in ADR mechanism results into 0.611 units improvement in resolution of contractual disputes, which is higher compared to 0.510 units improvements without intervening influence of business strategy. The results further show that the intervening influence of business strategy causes a unit increase/improvement in civil litigation process to produce -0.20 instead of -0.26 units in resolution of contractual disputes, which is an improvement. These findings further underscores that the intervening influence of business strategy is both positive on civil litigation process and ADR mechanisms, but more on the latter to build consensus in and avoidance of disputes in road construction projects. The positive intervening influence on civil litigation process indicates that business strategy may cause parties to either to withdraw from litigation processes or seek out-of-court settlements instead of long court processes during which the parties cannot do business because of hostilities and adversarial relationship. The constant standardized beta coefficient has also increased from 18.102 to 18.803. The results suggest that model parameters increase when Business strategy is incorporated in the resolution of disputes.

The study therefore concluded that use of business strategy improves JEM's capacity to achieve resolution of contractual disputes. This resonates with the findings of Gmmell and Entwistle (2010) that employers expect realistic and flexible solutions to a dispute which calls for contractor to use appropriate business strategy. Hill and Wall (2008) further emphasize that business strategy often influences parties' willingness to conclude disputes amicably and consensually. The study has also established that a combination of business strategy and ADR mechanism achieve better results in resolving contractual disputes than its combination with civil litigation process.

Influence of Contract Operational Environment on Resolution of Contractual Disputes

Some of the environmental factors in which construction contracts operate are the legal jurisdiction, that is; the applicable law of the host country of a road construction project and the type of contract itself, that is; whether the contract type is procurement only, or procurement and construction or engineering, procurement and construction(EPC) contract. Statements on these indicators of contract operational environment were presented to the respondents to rate on Likert scale as strongly agree (SA), agree (A), neutral (N), disagree (D), strongly disagree (SD). The results were as given in Table 14.

Table 14: *Contract Operational Environment, Judicial Evaluation Model and Resolution of Contractual Disputes in Road Construction Projects*

No.	Statements	n	SD 1	D 2	N 3	A 4	SA 5	Mean	SD. (±)
9(a)	Applicable law determines selection of dispute resolution method	250	0 (0%)	47 (18.8%)	11 (4.4%)	99 (39.6%)	93 (37.2%)	3.95	0.121
9(b)	Form of Contract determines selection of dispute resolution method	250	0 (0%)	0 (0%)	10 (4.4%)	171 (68.4%)	69 (27.6%)	4.24	0.129
	Composite Mean and SD.							4.10	0.191

On legal jurisdiction as an indicator of contract operational environment, out of the 250 respondents who participated on the study, none(0%) strongly disagreed, 47(18.8%) disagreed, 11(4.4%) were neutral , 99(39.6%) agreed while 93(37.2%) strongly agreed. Most respondents were affirmative, 99 agreed and 93 strongly agreed, accounting for 192(76.8%). The mean was 3.95 which was below the composite mean of 4.10 and standard deviation was ±0.121 above composite std = ±0.191. The mean (3.95) tended to 4 which is an affirmation, although the large standard deviation above the composite showed a wide spread of responses suggesting lack of convergence among respondents. The findings showed legal jurisdiction (applicable law) determines selection of disputes resolution method that is deployed to resolve contractual disputes in road construction projects.

On form/type of contract, out of the 250 respondents none (0%) strongly disagree or disagree, 10(4.4%) were neutral, 171(68.4%) agreed and 69(27.6%) strongly agreed. The modal response was 4(agree) at 171(68.4%) which is a strong affirmation. The mean was 4.24 which was above the composite mean = 4.10, both tending to 4 on the Likert scale and therefore signifying strong agreement that type of contract determines selection of dispute resolution method. The standard deviation was ±0.129 which was smaller than the composite standard deviation (±0.191) showing high convergence among respondents. The study therefore affirmed agreement among sample respondents that type of contract environment determines selection of dispute resolution method used in resolving contractual disputes in road construction projects.

Contract operational is therefore deemed to have moderating effect on the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects by determining the method of dispute resolution. Noushad (2006) agrees that external environment of the contract is a key factor in the choice of dispute resolution approach because it defines the first approach the parties adopt towards resolving disputes. Whereas all dispute resolution methods are subservient to the applicable law, a contract can prescribe which method of resolution should be used in contractual disputes in a road construction project.

Pearson product-moment correlation was used to measure the strength and the direction of linear association of contract operational environement, judicial evalaution model and resolution of contratual disputes. The results of correlation were as presented in Table 15.

Table 15: *Correlation of Contract Operational Environment, Judicial Evaluation Model and Resolution of Contractual Disputes in Road Construction Projects.*

	Resolution of Contractual Disputes	Civil Litigation	ADR Mechanism	Contract Operational Environment
Resolution of Contractual Disputes	1			
Civil Litigation process	-0.041	1		
ADR Mechanism	0.695**	0.008	1	
Contract Operational Environment	0.305	0.011*	0.065	1

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed).

The correlation matrix shows that contract operational environment has weak positive correlation (r = 0.305, p = 0.01) with resolution of contractual disputes in road construction projects, even a weaker and positive correlation (r = 0.011, p = 0.01) with civil litigation process and another week positive correlation (r = 0.065, p = 0.01) with ADR mechanism.

Comparatively correlation of contract operation environment with ADR mechanism (r = 0.065, p = 0.01) is higher than with civil litigation process (r = 0.011, p = 0.01) which implies that litigation process is less moderated by contract operational environment than ADR mechanism. This points to the rigidity of litigation process in resolving contractual disputes hence inability to strike a consensus between the disputants. ADR mechanism exhibits flexibility to external factors allowing parties to design own solutions that are consensual and capable of resolving contractual disputes in road construction projects.

To determine the moderating influence of contract operational environment on relationship between judicial evaluation model and resolution of contractual disputes, a multiple regression analysis of the variables was carried out. The model summary of the multiple regression was as presented in Table 16.

Table 16: *Regression Model Summary for Contract Operational Environment Judicial Evaluation, and Resolution of Contractual Disputes in Road Construction Projects*

Model	R	R Square	Adjusted R Square	Std. Error the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F change
1	0.631a	0.401	-0.005	2.474	0.007	5.48	3	246	0.050

a. Predictors: (Constant), Contract Operational Environment, Alternative Dispute Resolution, Litigation

The R value of 0.631 indicates moderate degree of correlation (negative or positive) of contract operation environment and the relationship between JEM and resolution of contractual disputes in road construction projects. R Square value of 0.401 indicates that the moderating influence of contract operational environment on the relationship of JEM and resolution of contractual disputes explains 40.1% change in resolution of contractual disputes in road construction projects.

Hypothesis 2

H0: There is no significant moderating effect of Contract Operational Environment on relationship between judicial evaluation model and consensual resolution of contractual disputes in road construction projects in Kenya.

The null hypothesis was tested using ANOVA F-Statistic at 95% confidence level; to either reject or fail to reject at p value, p = 0.5, level of significance. The results of the test were presented in Table 17.

Table 17: *ANOVA Statistics for Contract Operational Environment, Judicial Evaluation Model and Resolution of Contractual Disputes in Road Construction Projects*

Model		Sum of Squares	df	Mean Square	F	Sig.
1						
	Regression	10.053	3	3.351	5.481	.050b
	Residual	1505.291	246	6.119		
	Total	1515.344	249			

a. Dependent Variable: Resolution of Contractual Dispute
b. Predictors: (Constant), Contract Operational Environment, Alternative Dispute Resolution, Litigation

The ANOVA F-statistic; $F_{(3, 246)}$ = 5.481 at p = 0.050 shows that the regression of contract operational environment is a significant moderator ($p \leq 0.05$) of the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects.

Therefore, the study rejects the null hypothesis and concludes that there is significant moderating effect of contract operational environment on the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects in Kenya.

The results of hypothesis test were further confirmed by use of coefficients of the regression to assess the moderating influence of contract operational environment on the relationship between judicial evaluation model on resolution of contractual disputes in road construction projects and the results were as given in Table 18.

Table 18: *Coefficients of Regression of Contract Operational Environment, Judicial Evaluation Model, and Resolution of Contractual Disputes in Road Construction Projects*

Model		Unstandardized Coefficient		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	17.106	1.973		8.669	.000
1	Civil Litigation	-.020	.036	-.037	-.571	.569
	ADR Mechanism	.601	.032	.039	.597	.551
	Contract Operational Environment	.036	.036	.064	.986	.325

Dependent Variable: Resolution of Contractual Dispute

The results gave a standardized beta values of -020 for civil litigation process and 0.601 for ADR mechanism, 0.036 for contract operation environment   and a constant of 17.106. If plotted in a multiple linear relationship of the form, y = βo +β1X1+β2 X2 + β4 X4 + ε, assuming the error term (ε) is zero, becomes:

Resolution of contractual dispute = 17.106 + 0.601 ADR mechanism − 0.020 civil litigation process + 0.036 Contract Operational Environment.

The regression model demonstrates that, with the moderating influence of contract operation environment, a unit increase in ADR mechanism results into 0.601 units increase/improvement in resolution of contractual disputes.   The findings also show that, with the moderating influence of contract operational environment, a unit increases in civil litigation process produces 0.20 decrease in consensual resolution of contractual disputes, while a unit increase in contract operational environment itself causes 0.036 units increase resolution of contractual disputes. The constant standardized beta coefficient is 17.106.

From the above findings, it is observed that standard beta coefficient of ADR mechanism has changed from 0.510 (without influence of contract operating environment) to 0.601 (with influence of contract operating environment) but the beta constant has reduced from 18.102 to 17.106. it is also observed that there is a small increase in the beta coefficient of civil litigation process from -0.026 to -0.020. All these suggest that contract operational environment has a positive change and moderating influence on judicial evaluation model, that is civil litigation process and ADR mechanism. However, it moderates ADR mechanism more than it does civil litigation process confirming the flexibility of ADR mechanism in resolving contractual disputes as compared to civil litigation process (Kumaraswami,1997). These findings further agree with those of Noushad (2006) that external environment is a key factor in the choice of disputes resolution method. Kodagoda (2008) and Madden (2001) respectively state that legal environment and form/type of contract either determine or prescribe approaches to dispute resolution in road construction projects.

V.   Summary of Findings

The first objective established influence of business strategy on resolution of contractual disputes in road construction projects. The composite mean was 3.105 and composite standard deviation was ± 1.205. this meant that the respondents were undecided on this matter but there was a large divergence of opinion. This data was triangulated with qualitative data which confirmed that the respondents generally agreed that business strategy cause parties to avoid disputes. Correlations confirmed that business strategy has weak and positive relationship (r =0.092, p =0.01) with civil litigation progress and strong positive relationship (r = 0.580, p = 0.01) ADR mechanism suggesting that difluence of business strategy is stronger and it works better with ADR mechanism that with civil litigation process. This was understood to be due to the flexibility of ADR mechanism in resolution of contractual disputes unlike the rigid civil litigation process.

Coefficient of regression showed that unit increase in business strategy resulted into 0.420 units increase of resolution of contractual disputes by modifying/improving coefficients of civil litigation process from − 0.26 to -0.20 and that of ADR mechanism from 0.510 to 0.611, signifying the mediating influence of business strategy on resolution of contractual disputes in road construction projects. The model summary of the regression gave R-square of 0.412 which meant that with the mediating/intervening influence of business strategy, judicial evaluation model explains 42.2% of resolution of contractual disputes in road construction projects. Hypothesis was tested using F-test and showed that F (3,246) = 7.88 at p = 0.043 which meant that business strategy has a significant mediating influence in the relationship between judicial evaluation model and contractual disputes in road construction projects.   The study therefore rejected the null hypothesis and concluded that business strategy has significant mediating influence in the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects.

The second objective examined influence of contract operational environment on resolution of contractual disputes in road construction projects. The composite mean and composite standard deviation were 4.10 and ±0.191 respectively and showed that respondents agreed and concurred that contract operational environment determined the selection of method of resolving contractual disputes in road construction projects. The correlation between contract operational environment and civil litigation process was weak and positive correlation (r =0.011, p =0.01), the same was the case with ADR mechanism, but comparatively stronger (r =0.065, p =0.01). This implied that civil litigation process in less moderated by contract operational environment than ADR mechanism, which pointed to the rigidity of civil litigation process in resolving contractual disputes compared to ADR which exhibits flexibility and creativity.

Coefficients of regression showed that unit increase in contract operational environment results to 0.036 units of resolution of contractual disputes by modifying/improving coefficients of civil litigation process -0.026 to -0.020 and coefficient of ADR mechanism from 0.510 to 0.601, which indicated that contract operational environment has a positive moderating influence on both civil litigation process and ADR mechanism, the two being the judicial evaluation model, and its relationship with resolution of contractual disputes. The R-square statistic of the regression was 0.401 and indicated that with moderating influence of contract environment, judicial evaluation model explains 40.1% of resolution of contractual disputes in road construction projects. Hypothesis test using F-statistic gave F (3, 246) = 5.481 at p = 0.050, which confirmed that contract operational environment is significant moderator of the relationship between judicial evaluation model and resolution of contractual disputes. The study therefore rejected the null hypothesis and concluded that contract operational environment has significant mediation influence on the relationship between judicial evaluation model and resolution of contractual disputes in road construction projects in Kenya.

VI.   Conclusion

Objective one was to establish the influence of business strategy on resolution of contractual disputes in road construction projects in Kenya. Indicators of business strategy were customer retention and profit maximization. The quantitative data presented a neutral position among the respondents over the two indicators, but from triangulation with qualitative data, it was established that customer retention drives parties into avoiding disputes or resolution of dispute through methods that build consensus for the sake of long term business relationship as opposed to adversarial methods. However, profit maximization mentality drives parties towards adversarial approaches of resolving contractual disputes as parties strongly assert their entitlements. It was therefore concluded that business strategy influences the choice of method of resolving contractual disputes depending on whether the parties view their relationship in long term or short term. Business strategy influences relationship between JEM and resolution of disputes through customer retention and profit maximization. Customer retention strategy avoids disputes and favours long term business relationship, while profit maximization strategy asserts entitlements of parties. Customer retention strategy aligns to ADR mechanism for either avoidance of dispute or consensual resolution of disputes while profit maximization aligns to civil litigation process which supports assertion of entitlements

The second objective was examining influence of contract operational environment on resolution of contractual disputes in road construction projects in Kenya. The indicators of contract operational environment were legal jurisdiction (applicable law) and form/type of contract. It was established that disputes resolution methods are subservient to the law and contracts prescribe the dispute resolution method to be applied in a project. It was therefore concluded that contract operational environment determines selection of dispute resolution method that would be deployed in resolution of contractual disputes in road construction projects. Contract operational environment influences the relationship between judicial evaluation model and resolution of contractual disputes either by preferring a method of resolution of dispute through the applicable law or prescribing the method of dispute resolution through the form of contract

References

[1].   Agapiou Andred (2011). UK Construction Participants' experience of adjudication. Management Procurement and Law. Institute of Civil Engineers. 166(1).
[2].   Agawal V and Owasonoye B (2001). Alternative Dispute Resolution Methods. Paper presented in UNITAR Sub-regional workshop. Geneva.
[3].   Ahmed M. Syed, Castillo Maurcio and Kappangantula Pragnya(2009). Construction Delay in Florida: An Empirical Study. Florida International University, Miami U SA
[4].   Alkin, M.A. & Christie, C. A. (2004). An evaluation theory tree. In M.C. Alkin (Ed), Evaluation roots: tracing theorist's views and influences (12- 63). CA: Sage
[5].   Ayudhya N. I.B (2011). Common disputes related to public work projects in Thailand. Songklanakarin. Journal of Science and Technology. 33(5), 565 – 573
[6].   Crabbe, A. & Leroy, P. (2008) The handbook of environmental policy evaluation. London: Earthscan.
[7].   Dancaster C. (2008). Construction adjudication in United Kingdom: past, present, future. Journal of Professional Issues in Engineering Education and Practice 134(2): 204-208.

[8]. Dorin, H., Demmin, P. E., Gabel, D. (1990). Learning Theories and Integration Models. (3rd ed.). Englewood Cliffs, NJ: Prentice Hall, Inc

[9]. Elyamany, A.; Ismael, B; Zayed, T. (2007). Performance evaluating model for construction companies: Egyptian case study, Journal of Construction Engineering and Management 133(8): 574-581.

[10]. Enshassi, A.; Mohamed, S.; Abu Mustafa, Z.; Mayer, P.E (2007). Factors affecting labor productivity in building projects in the Gaza Strip, Journal of Civil Engineering and Management 13(4):245-254.

[11]. Eversheds (2005). Adjuducation Clent Brefing. Eversheds London. UK.

[12]. Faridi, A.; El-Sayegh S. (2006) Significant factors causing delay in the UAE construction industry. Construction Management and Economics. 24(11) 1167-1176.

[13]. Frimpong Y., Olowoye J. and Crawford L. (2003). Causes of delay and cost overruns in construction of ground water projects in developing countries: Ghana as a case study. International Journal of Management, 21(2003) 321-326

[14]. Ghada Moustafa G (2012). Effects of culture, risk and trust on selection of dispute resolution methods in international construction contracts. Ph.D. Thesis. Iowa State University.

[15]. Glenn A. Urquhart (2009), Resolving Construction Disputes – The alternative dispute resolution process. Singleton Urquhart, Georgia.

[16]. Gould N, King C, and Britton P (2010) Mediating Construction Disputes: An evaluation of existing practice. Kings College London. Center for Construction Law and Dispute Resolution, London, UK.

[17]. Iyer K.C.; Jha K.N. (2005) Factors affecting cost performance: evidence fron Indian Construction PROJECTS. International Journal of Project Management 23: 283-295

[18]. Kennedy P (2006). Progress of statutory adjudication as a means of resolving disputes in construction in United Kingdom. Journal of Professional Issues in Engineering Education and Practice 134(2): 214-219.

[19]. Murali S. & Soon W.Y. (2006). Causes and Effects of Delay in Malaysian Construction Industry. International Journal of Project Management, 25(2007) 517-526

[20]. Nyonje R.O, Ndunge K.D, Mulwa S.A (2012). Monitoring and Evaluation of Projects and Programs: a Hand Book for Students and Practitioners. Aura Publishers. Nairobi, Kenya.

[21]. Okeyo Maurice Paul (2011). Effects of Contractual Delay in Completion of Sondu Miriu Hydeopower Project, Kisumu County. Masters Thesis. University of Nairobi.

[22]. Okuwoga, A.A., (1998). Cost-time performance of public sector housing in Nigeria. Habitai Intl. 22(4): 389-395

[23]. Popham, W. J. & Carlson, D. (2013). Deep Dark Deficits of the Adversary Evaluation Model. Educational Researcher, 6 (6), 3-6.

[24]. Samson M. and Lema N.M(2005) Factors affecting cost performance. Evidence from Indian construction projects. International Journal of Project Management 23: 283-295

[25]. Thurston, P. (2008). Revitalizing Adversary Evaluation: Deep Dark Deficits or Muddled Mistaken Musings. Educational Researcher, 7 (7), 3- 8

[26]. Ugwu O.O and Haupt T.C (2007). Key performance indicators and assessment methods for infrastructure sustainability, Building and Environment 42: 665-680

[27]. Worthen, B. (2008). Program evaluation. In H. Walberg & G. Haertel (Eds.), The international encyclopedia of educational evaluation (42-47). Toronto, ON: Pergammon Press