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CONFLICT MANAGEMENT OF CONSTRUCTION PROJECTS –A CASE STUDY KUWAIT INTERNATIONAL AIRPORT CARGO CITY

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ABSTRACT

Exchanges within the construction teams have been often found to be argumentative, conflict and crisis ridden, and as a result individual worker in the industry are exposed to extreme hostility. These conflicts result from disagreements about ways of solving spot site-related problems, insufficient planning, ill-prepared contract documents, and the lack of coordination between the contracting parties. Members in a construction project tend to form a community with an intricate set of intertwined relationships. Continuing conflicts among members therefore manifest in further disagreements that can ruin a project, and result in thorny litigation, amplified cost, collapse in communication, and strained task conveyance.

This study therefore seeks to discover the causes of such conflicts within the construction sector, and the ways by which these conflicts are resolved. Quantitative design has been used in combination with a cross-sectional questionnaire directed at conflict management of construction projects at the Kuwait international airport. A total of 188 questionnaires have been distributed, out of which 14 were lost, and 11 of them have not been answered. Responses of 163 participants were recorded and analyzed through the use of the Statistical Package for Social Scientists (SPSS). To fix the correspondence issue, the study involved follow-ups of the project status using the digital platform of BIM software in form of progress reports, site reporting, and meeting site project team. Results show that the conflict management strategy of construction project related strongly with employee's situation, efficiency, law, development, and growth restrictions on investment income at Kuwait project construction sites. The conflict management strategy of construction project was found to have a positive effect on the performance of the workers in construction projects with Beta Coefficient = 0.904; indicating that for one-unit increase in conflict management strategy, the performance of construction projects in Kuwait International Airport Cargo City would increase by 0.904 unit. Finally, when participants were asked if there is a delay in project or not, 63.2% of the total sample answered [Yes] as the highest percent, while 16.6% of the total sample answered by [No] and 20.2% didn't know.

KEYWORDS:*Conflict Management, Construction,Projects, Strategy, Dispute, Management, Kuwait*

Article History

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INTRODUCTION

Conflict of construction projects today are becoming more complex in nature. "The complex and long-term design and construction process makes construction a process in which conflicts are effectively guaranteed"**(McManamy,1994)**. Moreover, the involvement of disciplines in the construction project into disputes between the parties. It seems that conflict and conflict is inevitable for the construction industry especially when construction projects face a lot of uncertainty **(Whitfield,1994)**.

The conflict is essential for individuals, teams, contractual relations and organizations. It is inevitable in most construction projects given their unique and complex nature and the presence of different parties and multifunctional teams. The construction project environment, therefore, is an appropriate environment for conflict exploration and management**(Ellis &Baiden,2007)**, Disputes on the construction site are common. Disputes and disputes will arise when you have multiple parties such as general contractors, owners, architects and subcontractors who work together to complete the project. These stakeholders have different opinions and interpretations on how things are done. These different opinions often lead to conflicts**(Fenn&Gameson,1992)**.

To fix the correspondence issue, the investigation recommends methodologies like the study suggests strategies follow up the progress reporting, opening the decision, motivation to site team work, communication with by BIM software digital to follow up (approval or approve as not or rechecked, progress the project, checklist action, site review, save database, delays, costs, latest action, review contractual documents, any issue related the project to avoided conflict).

PROBLEM STATEMENT AND SIGNAFICANCE

Although, as El-adaway and Kandil**(2010)** have noted, conflict is often inevitable, conflict within the construction industry is often excessive and often a major negative factor in industry **(Panagiotis and Howell, 2001)**. There are two types of conflicts that usually occur within Large-scale construction projects, which are internal conflicts and interface conflicts. Including internal conflicts involved within the project; while the interface conflicts involved parties outside the project. In this study, will focus on the internal conflict faced by internal stakeholders in the construction project, such as developers, contractors and consultants. There are a Many Parties involved in the construction project Project stakeholders are called project stakeholders Project stakeholders can be defined as individuals or groups actively participating in the project whose preferences are positively and negatively affected and that result in successful completion of the project **(Project Management Institute, 1996)**.

Suharto **(2001)** noted that the project could be interpreted as a temporary activity that occurred over a limited period of time, with limited resources allocated. According Dipohusodo's**(1995)**, the project represents an effort to mobilize resources, structured to achieve the goals and expectations of particular importance and must be completed within a specified period of time in accordance with the Convention. The series of activities begin construction in the idea comes from the need to proceed in a study of the possibility of its creation project. He then held the preliminary design and detailed design, purchase of resources, building on the site that was provided, and the maintenance of buildings until the delivery of the building to the owner of the project.

AIMS THE STUDY

The purpose of the present study is to search the current encounters management methods, and inspect and possibility of their applications in construction developments in Kuwait International Airport Cargo City.

And to find solutions to the overall objective, the research endeavor to;

- Study the impact of conflict management strategy of construction project effect the performance of the workers in construction projects.
- The study of the effects of the construction conflict project has some organizational consequences, for example, voluntary turnover rate, low levels of performance in terms of quantity as well as quality, lack of creativity as well as workers' liability, incident behavior, loss of interest on a company or worker and low participation.

RESEARCH QUESTIONS

The following questions will be posed to aid achieve the objectives of the study.

- What is the development and growth restriction on investment income at Kuwait project construction?
- Is there an impact of conflict management in construction projects in the construction of the performance of construction projects in Kuwait International Airport Cargo City?

RESEARCH PHIISOPHY METHODOLOGY

The study will thus combine both qualitative and quantitative methods in collecting data. Literature review will be done to accumulate a list of disputes, will also be consulted to shore up the primary data that will be collected. Sample of clients, contractors and consultants. who work in construction projects in kuwait international airport.

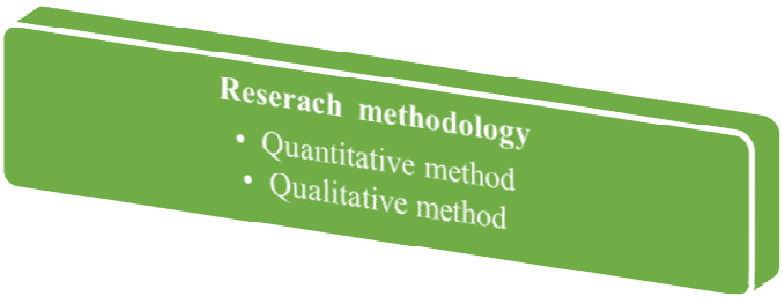

Figure 1: The Research Methodology

Functional and Dysfunctional Conflict Phenomenon

The phenomenon of conflict is seen from two different perspectives. According to Vaaland&Håkansson**(2003)**, the first perspective is conflict as a disease in organizations that have serious and systemic consequences in the first place. The second perspective holds that, the conflict can be effective. In a project environment according to Loosemore**(2000)**, conflicts can foster creativity and innovation. In Vaaland&Håkansson**(2002)**, Vaaland&Håkansson**(2002)** show how functional and functional discrepancies can be a two-axis number. The first axis indicates the degree of cooperation between the two sides and the second indicates the degree of conflict in relation to labor relationships, as shown in Fig. (5).

Figure That by looking at cooperation and conflict as two dimensions, it is possible to identify four groups. The most interesting is the fourth quarter "good progress" which is characterized by a high degree of conflict and at the same time a high degree of cooperation.

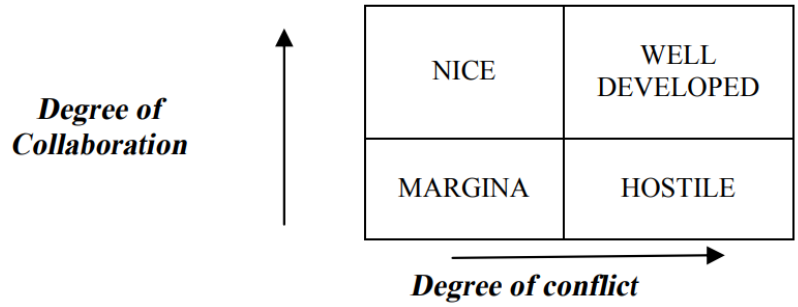

Figure 2: Functional and Dysfunctional Conflict Model

Sources: Vaaland & Häkansson **(2003)**

TYPES OF CONFLICTS

Two types of conflict were identified in groups: task conflict and conflict of relations **(Simons & Peterson, 2000)**. Conflict of tasks, also referred to as cognitive or substantive conflict, focuses on task-oriented difference and originates from perceived conflicts of views or perspectives regarding the task being carried out, while conflict of the relationship, also known as emotional or emotional conflict, concerns the individual The dispute is directed or related to the relationship and arises from the incompatibility of persons who have nothing to do with the task, which often involves emotional tension or rivalry with respect to personality, trust, attitude, strength, appreciation, trust or respect, etc. **(Jehn et al., 2008; Yang &Mossholder, 2004)**. Contrasting tasks is useful for group performance and decision-making quality because it facilitates the exchange of information among members; on the contrary, conflict of relations harms groups because it results from tension and hostility that prevents members from performing the task **(Yang &Mossholder, 2004)**; however, the most recent meta-analysis revealed that there were negative relationships between both types of conflict with group performance and satisfaction **(De Dreu&Weingart, 2003)**.

ASHA Journals Editor Resource Center mentions three types of conflictAs follows:

Personal conflicts: Editors should avoid making decisions about manuscripts submitted by their institutions, by researchers involved in research, by co-authors, or by competitors. To avoid bias, editors must reuse themselves if they are posted with them, cooperated, or have been in a guiding relationship with any author or contributor to the manuscript over the past three years.

Financial conflicts: The most obvious type of conflict of interest occurs when an editor or a financial institution benefits from a decision to publish or reject a manuscript. Financial conflicts may include salary, grants from a company having an interest in the results, honor, equity or equity in the company whose products are discussed in the article, intellectual property rights (patents, franchises, copyright).

Non-financial disputes: Other non-financial interests should be avoided. Editorial decisions should be based on an objective and impartial examination of the facts, with the exception of personal or professional bias. All decisions made by editors must be based solely on the scientific merit of the paper, its originality, the quality of the writing, as well as its

relevance to the scope and mission of the journal, regardless of race, ethnic origin, gender, religion, or citizenship. Editors should disclose personal biases that may affect their editorial decisions.

Demographic Statistics

This part is used to summarize the demographic data in order to discover the existing patterns as well as simple explanation of analysis results by calculating thefrequencies andpercentages for all demographic data of the participants. (N= 163)

The highest percent of the total sample were male by 69.9%, while female were 30.1% of the total sample.Age of the highest group were for (25 to 27 years) by 31.9% of the total sample,almost participants were owner by 66.3% of the total sample, about position almost participants were administrativeby 38.6%of the total sample. Finally, when participants were asked if there a delay project, the highest percentages 63.2% of the total sample answered by (Yes), while 16.6% answered by (No) and 20.2% of the total sample didn't know.

Table 1: Demographic Data of the Participants (N=163)

		N	%
Gender	Male	114	69.9
	Female	49	30.1
Age	25 to 27 years	52	31.9
	28 to 35 years	38	23.3
	36 to 40 years	51	31.3
	41 to 50 years	18	11.0
	51 to 65 years	4	2.5
Job	Owner	108	66.3
	Consultant	41	25.2
	Contractor	14	8.5
Position	Site engineer	33	20.2
	Project manager	24	14.7
	Manager department	1	0.6
	Administrative	60	36.8
	Technical staff	45	27.7
Delay Project	Yes	103	63.2
	No	27	16.6
	I Don't know	33	20.2

Reliability Testing

For the data collection, the sample size was (163) respondents, the calculated Cronbach's Alpha was (0.981) for the whole questionnaire (46 phrases) ranged between (0.884) for part 4 as the minimum value and (0.982) for part 2 as the maximum value; these results indicate a good reliability for the questionnaire, Cronbach's alpha ranges from r = 0 to 1, with r = 0.7 or greater considered as sufficiently reliable (Nunnally& Bernstein, 1994). Table (4.2)

Table 2: (Cronbach's Alpha Reliability Result

Sections	No. of Phrase	Cronbach's Alpha
Part 1	10	0.957
Part 2	10	0.982
Part 3	15	0.930
Part 4	10	0.884
Questionnaire	45	0.981

QUESTIONNAIRE RESULTS

This sample is considered large sample for answering the research questions, A Likert scale 5- points measures were used to answer the questionnaire questions, that ranged from (1) to Strongly disagree up to (5) to Strongly agree. (Pimentel, J. L. (2010).

Table 3: Points Likert Scale

Degree	Likert Scale	Difference	Interval
Strongly disagree	1	0.79	1.0 – 1.79
Disagree	2	0.79	1.80 – 2.59
Neutral	3	0.79	2.60 – 3.39
Agree	4	0.79	3.40– 4.19
Strongly agree	5	0.80	4.20 – 5.00

In next section werepresentsparticipant's respondent towards the questions of the questionnaire by calculatingfrequency distribution, mean as well as standard deviation for the four parts.Table. (4) show that the descriptive statistics for participants' responses towards employees' situation in project, by calculating Frequencies, Percentages, Mean, Standard deviation and Rank.

Table 4: Descriptive statistics for participants' responses towards Part 1: (Employees situation in project as job satisfaction and their knowledge to government instructions at the project and their relationship with owner and contractor)

Table 4

Statements		SD	D	U.N	A	SA	Mean	Standard Deviation	Rank
Question 1	F	28	2	17	44	72	3.797	1.453	10
	%	17.2%	1.2%	10.4%	27%	44.2%			
Question 2	F	10	0	25	54	74	4.116	1.073	7
	%	6.1%	0	15.3%	33.1%	45.4%			
Question 3	F	5	0	21	60	77	4.251	0.905	1
	%	3.1%	0	12.9%	36.8%	47.2%			
Question 4	F	7	0	35	45	76	4.122	1.029	6
	%	4.3%	0	21.5%	27.6%	46.6%			
Question 5	F	8	0	21	59	75	4.184	1.001	4
	%	4.9%	0	12.9%	36.2%	46%			
Question 6	F	6	0	21	57	79	4.245	0.943	2
	%	3.7	0	12.9	35	48.5			
Question 7	F	6	1	37	54	65	4.049	0.992	8
	%	3.7%	0.6%	22.7%	33.1%	39.9%			
Question 8	F	4	1	31	53	74	4.177	0.929	5
	%	2.5%	0.6%	19%	32.5%	45.4%			
Question 9	F	4	0	31	54	74	4.190	0.913	3
	%	2.5%	0	19%	33.1%	45.4%			
Question 10	F	19	0	16	54	74	4.006	1.269	9
	%	11.7%	0	9.8%	33.1%	45.4%			
Overall							**4.114**	**0.903**	

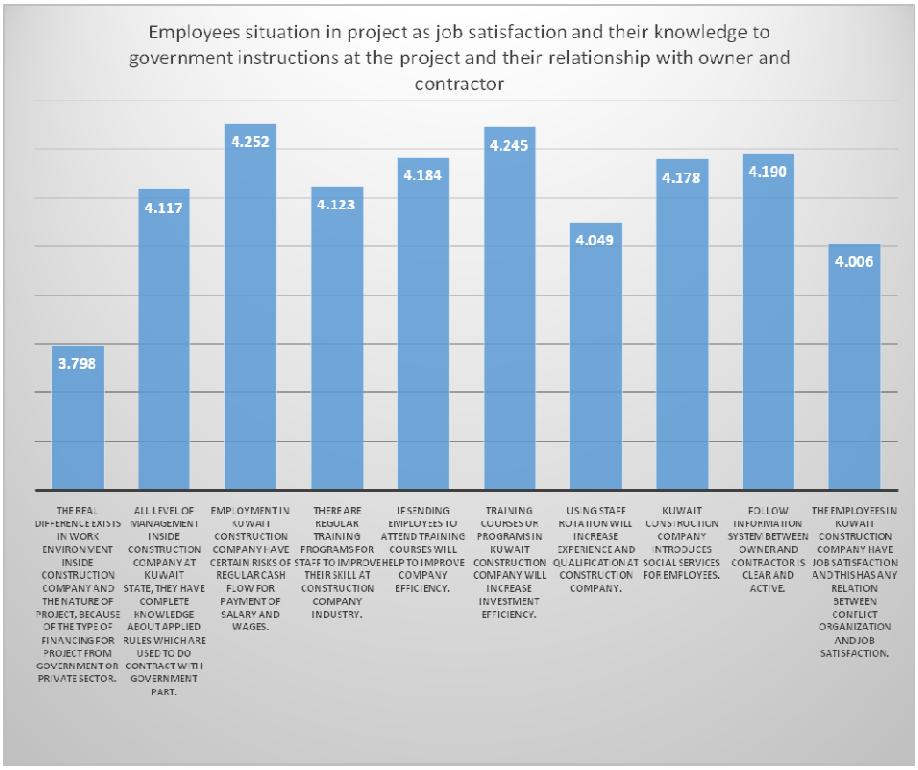

Figure 3

Figure 3: Employees situation in project as job satisfaction and their knowledge to government instructions at the project and their relationship with owner and contractor (Mean)

Relations between Study Variables

For answering the hypotheses of the study, correlations Matrix were performed; since every pair of variables were related with significant correlation coefficient ($P < 0.01$), the highest relation was between Conflict management strategy and Development and growth restriction by R= 0.881, the least relation was between Conflict management strategy and Efficiency law by R=0.799.

Table 5: Correlations Matrix

		Employees Situation in Project	Efficiency Law	Development and Growth Restriction	Conflict Management Strategy
Employees situation in project	Pearson Correlation	1	.864**	.879**	.872**
	Sig. (2-tailed)		.000	.000	.000
	N		163	163	163
Efficiency law	Pearson Correlation		1	.808**	.799**
	Sig. (2-tailed)			.000	.000
	N			163	163
Development and growth restriction	Pearson Correlation			1	.881**
	Sig. (2-tailed)				.000
	N				163
Conflict management strategy	Pearson Correlation				1
	Sig. (2-tailed)				
	N				
**. Correlation is significant at the 0.01 level (2-tailed).					

Impact Model

For test molding, Simple regression were performed; from which the conflict management strategy was the independent variable which impact the performance of construction projects in Kuwait International Airport Cargo City through its component (Employees situation, Efficiency law, Development and growth restriction), results shown that (F-ANOVA)= 636.127 with (P = 0.000 < 0.05) ; Beta Unstandardized Coefficients = 0.904 with R2= 0.798; indicate a big impact of conflict management strategy on the performance of construction projects in Kuwait International Airport Cargo City.

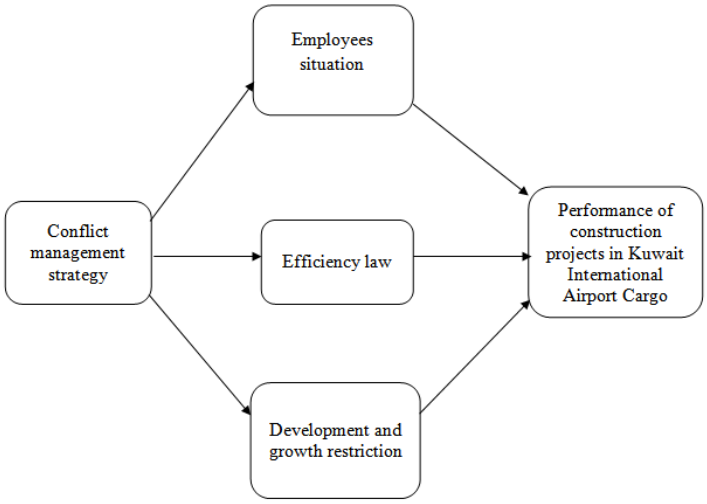

Figure 4

Figure 4Conflict management strategy impact model on the performance of construction projects in Kuwait International Airport Cargo City

Answering of the Fourth Question

What is the development and growth restriction on investment income at Kuwait project construction?

Results in (Table 4.7) show that the statement with highest agreements was (Are construction sectors in Kuwait have increasing growth ratio and recruitment) by mean score (4.343), while least responses was for (Disorder in tabulation Kuwait construction company delay projects its value by hundreds of millions) by mean score (2.809), the overall mean score of conflict management strategy section was (3.851) out of (5) degrees with St. Deviation of(0.874) which indicate a high level of agreements; since Mean score belong to the interval (3.40 : 4.19) which equivalent to(Agree) degree in 5-point Likert scale.

Answering of the Fifth Question

- Is there an impact of conflict management in construction projects in the construction of the performance of construction projects in Kuwait International Airport Cargo City?

Results of the analysis correlation and regression revealed the acceptance of the alternative hypotheses, as follow:

- The conflict management strategyof construction project related with the employees situation in project with (r=0.872, p < 0.01).

- The conflict management strategyof construction project related with the efficiency law which regulates the Kuwait construction market with ($r= 0.799$, $p < 0.01$).
- The conflict management strategyof construction project related with the development and growth restriction on investment income at Kuwait project construction with ($r=0.881$, $p < 0.01$).
- The conflict management strategy of construction project had a positive effect on the performance of the workers in construction projects withBeta Coefficients = 0.904; indicate that for one unit increase in conflict management strategy, the performance of construction projects in Kuwait International Airport Cargo City will increase by 0.904 unit.
- Finally, when participants were asked if there is a delay in project or not, 63.2% of the total sample answered by (Yes) as the highest percent, while 16.6% of the total sample answered by (No) and 20.2% didn't know. Unexpected site difficulties

CONCLUSIONS

As per study found the most importance causefor conflict as followings;

- Contract honors to unqualified contractors
- Lacks in designs
- Negative behavior of owners
- Improbable opportunities from owner
- Performance of contractors and sub-contractors
- Failure of owners to principle payments
- Variances in views between participants

RECOMMENDATIONS

BIM / Building Information Models

It is networked to support decision-making regarding a built asset and manage, communication utilities, in construction projects.

Employment of Qualified Personnel

Qualified faculties who have specific information in their zones of study ought to be utilized to deal with key positions to keep away from contradictions projects which can result in strife.

Satisfactory Financing for Projects

It is prescribed that, before any undertaking is started, partners ought to guarantee that there is sufficient subsidizing for the task included. This will guarantee that everybody is paid on schedule for good work done to avoid conflicts.

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