

Conflicts and Delays in Mega Construction Projects – Kuwait International Airport Cargo City – Research

Mohammad Kh Th E Alazemi, and A. K. M. Mohiuddin

Abstract— Mega construction projects in general require a lot of planning in terms of land acquisition, estimating material cost, human resources, financials, safety and many more. It is a common scenario with delays occurring in such mega projects attributing to increased project costs, delays in work completion. It leads to creating a negative impact on the prospects of the effective utilization of the project output in terms of space, facility and resources to commence work at that location. This study aims to identify the factors that could potentially contribute to project delays and possible methods of resolving the conflicts that have aroused. A case study on Kuwait International Airport Cargo City was conducted quantitatively as well as qualitatively. It is learnt that management conflicts have a major impact on creating project delays, due to poor management, lack of effective communication and ineffective utilization of resources.

I. INTRODUCTION

Building projects all around interest the commitments of a few people including the developing group, the administering group, and the customer, with every individual conveying to the fore their master learning required to effectively convey the task to fruition. And every one of these people meeting up to bring the task to fulfillment have diverse intrigue yet a typical goal of undertaking execution. Furthermore, when individuals of fluctuating foundation meet up as on account of a project group, conflict is positively not missing. As the individuals inside the undertaking alliance interrelate intrigue impacts and conflicts result, which can affect the project conveyance, particularly when it isn't all around overseen.

The examination hence tried to discover the reasons for these contentions in the construction area and the way by which these contentions are settled. The examination used quantitative structure in blend with a cross-sectional questionnaire on activities State of Kuwait and explicit for peace making of construction project Kuwait universal air terminal. What's more, utilizing questionnaires, an aggregate of 188 questionnaires have been circulated, 14 of them have been lost and 11 of them have not been replied and broke down using the Statistical Package for Social Scientists (SPSS). General reasons for conflict as indicated by the outcomes dominantly make conflicts than the agreement related causes. Lacking correspondence and repudiating directions as per the outcomes are the main sources of contention. The impacts of contention on project

achievement per the discoveries incorporate task postponements, remains and insufficient construction and diminished efficiency at site.

The discoveries uncovered, members in the examination lean toward the utilization of teaming up and trading off styles in settling conflict on destinations. Each task begins and finishes with correspondence, in this manner correspondence is the existence wire of all construction projects. What's more, to fix the correspondence issue, the investigation recommends methodologies like Team Meeting Discussions, Site Review Meetings, and Project Status Reporting stage.

II. PROBLEM STATEMENT AND SIGNIFICANCE

As indicated by Maiti (2018)[8] an efficient project is a task which has been legitimately structured, fittingly arranged, and appropriately worked to detail, cost and inside the planned time. Most tasks especially in the open part seldom get finished in time, inside the planned expense and the quality obviously [4]. In asserting Femi (2014)[4] states that construction conflicts are not all that regular in private and globally subsidized projects from open undertakings where legislative issues are frequently including in the honor of the agreement.

Open structure projects like some other undertaking request crafted by various staff from the worker through to the foremen, from the administrator to the site engineer, the task chief, the modeler, the customer and their delegates and institutional auditors and controllers each having a specific employment to perform. What's more, for a project to be conveyed effectively, every one of these people must work and resound together in participation and joint effort, regarding plan time, the utilization of assets and the expressed spending plan.

Lamentably, these people with shifting training and abilities despised at different phases of the undertaking have contrasting comprehension of project conveyance making differences and conflicts unavoidable [5]. This along these lines makes the construction of open structures an infamous region for conflicts; where contractual workers bring claims against proprietors, architects fight off fault for deficiencies and exclusions, manufacturers or temporary workers are stood up to with on location challenge which heretofore had not been caught by the planners, and neighbors and inhabitants brings warnings up in dissent to the project.

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Settling the unpredictable nexus of contention between project members, and a decent administration of these contentions as indicated by [2] is a precaution medication for question.

Peacemaking in the construction business has been profoundly specialized, particularly intricate, deliberately determined, and legitimately controlled and this kept on making rescindment of agreement, inadequate activities and task surrender [10]. In any case, members on different construction projects have combined some essential conflict settling strategies which are not promptly obvious in dealing with conflict. Furthermore, in that capacity various asking addresses rings a bell; question like "what achieves conflict?", "And can these contentions be settled?" and if yes" how are they chosen?" Is it through a Win-Win methodology, a Win-Lose procedure, or a Lose-Lose system? It is critical consequently to look for answers by method for examination into this territory of contention.

III. KUWAIT – A BRIEF UNDERSTANDING ON THE COUNTRY'S ECONOMY AND CONSTRUCTION

Kuwait has been distinguished by rapid growth in construction over the last thirty years, with remarkable achievements in various fields: economic, social, educational and construction. The Kuwaiti government has considered the construction industry to be one of its prime considerations, with the highest priority among non-oil sectors. The rapid increase in growth of the population made.

It is essential for the government to concentrate on construction activities, and the construction industry, therefore, occupies a very important place in the economic activities of the country [1]. Kuwait has been recognized by fast construction being developed in the course of the most recent thirty years, with wonderful accomplishments in different fields: monetary, social, instructive and construction.

The Kuwaiti government has viewed the construction business as one of its prime contemplations, with the most noteworthy need among non-oil segments. The fast increment in construction of the populace made it fundamental for the legislature to focus on construction exercises, and the construction business, hence, involves a vital spot in the monetary exercises of the nation [1].

Kuwait's construction industry part has been hit by a blend of components in the last quarter of 2009, bringing about a decline in gauge construction to 0.65 billion Kuwaiti dinars. Falling oil costs and new OPEC standards are set to lessen oil creation, which represents 80% of government incomes. In the meantime, the worldwide acknowledge emergency, alongside neighborhood political vulnerability, is enormously affecting speculator trust in Kuwait and these elements have led to a mass migration of ex-pat' specialists and imply that some foundation projects might be dropped or delayed until certainty returns. By 2013, the construction business' value is set to achieve 0.78 billion Kuwaiti Dinars (KD).

The nation's construction industry value construction has descended insignificantly from 2.67% construction in 2008, to 2.28% in 2009, and is relied upon to fall further to 1.03% in 2010. Kuwait's construction industry construction will

recuperate somewhat by 2013, with construction of 1.60% expected by at that point. There are as of now indications of postponements in a few substantial framework projects, outstandingly the \$7 billion metro framework for Kuwait City, which is required to be deferred by year and a half, and the broad Al-Zour refinery which might be overhauled. Be that as it may, there is news that the Kuwaiti government is exploring broadening in vitality creation, with examination of atomic age potential (Kuwait Infrastructure Report; 2009), and the important and focus all government for Kuwait international airport because the door for any countries and the government \$ 13 billion has been allocated to the airport sector in order to establish modern airport projects, runways for aircraft, aircraft parking and power stations for the airport and the total capacity 28 million passenger per year and it is very important to solve the conflict in construction by this thesis by scientific it process and who we can conflict management in construction projects without delay or conflicts.

Kuwait has been distinguished by fast construction being developed in the course of the most recent thirty years, with exceptional accomplishments in different fields: financial, social, instructive and construction. The Kuwaiti government has considered the construction business to be one of its prime contemplations, with the most astounding need among non-oil areas. The quick increment in construction of the populace made it basic for the administration to focus on construction activities, and the construction industry, along these lines, possesses an essential spot in the monetary activities of the country [1].

Kuwait's construction industry sector has been hit by a combination of factors in the last quarter of 2016, resulting in a decrease in forecasted growth to 0.65 billion Kuwaiti dinars. Falling oil prices and new OPEC quotas are set to reduce petroleum production, which accounts for 80% of government revenues. Meanwhile the global acknowledge emergencies, along with local political uncertainty, is greatly impacting investor confidence in Kuwait and these factors have led to an exodus of expat workers and mean that some infrastructure projects may be cancelled or postponed until confidence returns.

In Kuwait (in view of directorate of specialist's standards and conditions) the way toward settling debate is relies upon the understanding between the parties in the agreement, for instance if parties have referenced that they will settle any question under the Kuwaiti common law at Kuwaiti courts which is prosecution step. Some item else, the agreement gatherings can pick Arbitration which ought to be referenced in the agreement if the two gatherings needed to determine their question with mediator; the decision of the arbitrator is binding with no further understandings.

By utilizing standard types of agreement, a more pleasant parity might be accomplished if there should arise an occurrence of question. The interviewees ensured that the improving of question goals system in Kuwait is an interest to recover the construction industry. Nonetheless, improving the procedure of debate goals isn't as simple as including a

provision in the agreement. Concentrate the causes, components and roots of question in construction projects ought to be done before questionnaire the technique for construction. From the interviewees perspective, the deficiency of involvement in question goals with ADR for construction extends in Kuwait just as the need in preparing and instruction, are the huge bother issues against the utilization of ADR to determine construction industry debate.

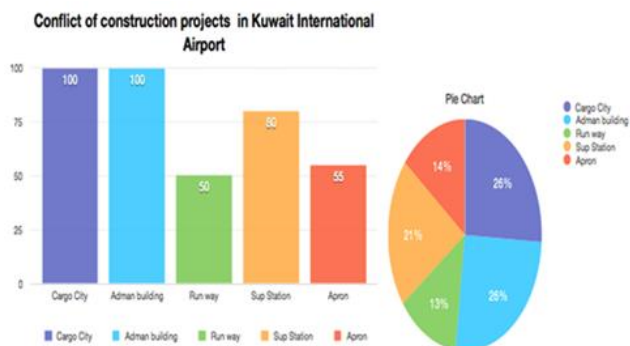


Figure 1 Conflict of construction projects in Kuwait International Airport

IV.METHODOLOGY

The purpose of this study is to explore the existing conflicts management approaches and examine their applicability in building projects in Kuwait International Airport Cargo City.

- i. Investigate the main reasons, signs, and symptoms of the conflict in the field of the construction projects in Kuwait International Airport Cargo City.
- ii. Study the most common methods that used to manage and control conflict management of construction project in Kuwait International Airport Cargo City.
- iii. Study different case studies for conflict management of construction projects that are suffered to this issue.

Research variables are as follows:

- Age of the workers in the construction company in Kuwait.
- Education level for employees in construction projects.
- The specialization for managers and engineers in construction projects.
- Job description for employees in construction projects.

Qualitative analysis in addition to quantitative analysis has been applied in this research.

- Qualitative analysis: This approach will be represented by conducting literature review as well as analyzing different case studies. The sources of information in this part are scientific sites and journals, books as well as papers. So, this information will be valid.
- Quantitative analysis: This approach will be represented by distributing questionnaire to employees in the construction company in Kuwait and The workers in construction projects (Including any worker was present during the distribution of the questionnaire). In order to check the reliability of questions, there are many techniques as follows:

- Rephrase some of questions in questionnaire, and then re-distribution of the questionnaire again in order to see do the participants understand the questions correctly.
- Re-distribution of the questionnaire again with rephrases the questions after a period as well as compares the new and old results with each other.

The research population in this project is all the employees in company in Kuwait. The number of employees in this company and owner is very large, so the sample of questionnaire is random sample represented by the (%5) of the workers in this company (Including any worker was present during the distribution of the questionnaire). A 144 questionnaires have been distributed, 14 of them have been lost, and 11of them have not been answered.

Building exercises are a vital part of each type of life. Consider houses, schools, emergency clinics, malls, and so forth that we utilize each day, all are results of structure exercises. Also, building exercises devour different assets that by their tendency are rare. Accordingly, it is imperative that building projects are done in the most productive and practical way. Conflicts in structure projects are referred to by various creators, for example, Langford (1992)[7], Fenn et al (1997)[4],Loosemore et al (2000)[6], Maiti (2018)[8], Gamil and Rahman (2018)[5];as one of the components that undermine project achievement.

The examination set forward various refereeing techniques utilized in the construction division to inform the open particularly those in the manufactured condition. In like manner others in a comparable industry may utilize the techniques in dealing with conflict or differences that may happen in their firms. In this way, it is critical to comprehend conflicts that an undertaking is probably going to look to make arrangement in the task set up for their administration and aversion.

The examination adds to the exploration and practice networks, by tending to issues on which conflicts happen and their causes in structure extends in Kuwait International Airport Cargo City and in Kuwait when all is said in done. Methodologies and instruments for the executives and avoidance of contentions in structure extends in Kuwait are proposed. The aftereffects of the investigation give extra learning required by customers/lenders, project directors, designers, engineers, amount Questionnaires, temporary workers and different partners in the administration of structure projects. The data consequently contained in the investigation may similarly be utilized as bases for building up a Charter or a Framework for controlling conflicts in the construction of open structures and other open related works by the State.

V.DATA ANALYSIS

Statistical Package for Social Scientist (SPSS 16.0) and Microsoft Excel were used in analyzing the collected data. Although several software thus exist for such research computations, the researcher's insight in SPSS and Excel

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made the two techniques the researcher's favored picks. The SPSS was used to perform Mean & Median & Stander deviation & frequencies importance indices were performed using Microsoft Excel including the charts that are generated to depict findings. The package was applied in generating descriptive statistics. And a Microsoft Excel was also applied in generating relative important indices and chart to back findings. Mean values derived from the measurement of the items and the relationship between the variables are established.

VI.RESULTS AND DISCUSSION DEMOGRAPHIC STATISTICS

This sub-section summarizes the demographic data in order to discover the existing patterns as well as simple explanation of analysis results by calculating the frequencies and percentages for all demographic data of the participants. (N= 163)

The highest percent of the total sample were male by 69.9%, while female was 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 administrative by 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, in Table 1.

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

This part includes testing process of the instrument reliability used by estimating "Cranach's Alpha coefficient". 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[9]in Table 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

This questionnaire will be comprised of 45 statements categorized into four parts that include different issues as the following:

Part one: Employees situation in project (engineering, technical non-technical employees) as job satisfaction and their knowledge to government instructions at the project and their relationship with owner and contractor.

Kuwait labor law has been developed by the Kuwaiti government in order to ensure the rights of workers in all fields. The extent of the contractor's commitment in the texts that exist in Kuwaiti Labor is the axis in these questions.

- The real difference exists in work environment inside Construction Company and the nature of project, because of the type of financing for project from government or private sector.
- All level of management inside construction company at Kuwait State, they have complete knowledge about applied rules which are used to do contract with government part.
- Employments in Kuwait Construction Company have certain risks of regular cash flow for payment of salary and wages.
- There are regular training programs for staff to improve their skill at construction company industry.
- If sending employees to attend training courses will help to improve company efficiency.
- Training courses or programs in Kuwait Construction Company will increase investment efficiency.
- Using staff rotation will increase experience and qualification at Construction Company.
- Kuwait construction company introduces social services for employees.
- Follow information system between owner and contractor is clear and active.
- The employees in Kuwait Construction Company have job satisfaction and this has any relation between conflict organization and job satisfaction.

Part two: Efficiency laws which regulates the Kuwait construction market

- Tender specifications of project contract will be available for all project parties.
- Regulation laws for construction sector in Kuwait are supported by government and private sector to make this sector as leader for economic development.
- The internal regulation system for Kuwait construction company is clear and active and complemented to support growth and development.
- Duties and rights for Construction Company under the law are clear.
- Implementation of remuneration law is very important for relevant price differentials.
- Tender law in Kuwait is strong, clear and credible.
- Social insurance benefits law inside construction company is equitable between all employees.
- It is necessary to create law, to manage the relation between contractor and sub-contractor.
- Does the engineering and contract law, need to re-evaluate to support construction.
- It is necessary to have new criteria for the recruitment of migrant workers and protect rights of expatriate workers and ensuring that quality of the expatriate force is commensurate with the planned development process.

Part three: Conflict management strategy between owner and Construction Company which will improve project

- There is no planning between owner and construction to controlling the plan.
- To reduce conflict in managing the Project must have complete knowledge in procedure and instruction and organization which we follow, and how we will apply.
- Does are the Owner have problems finance for project, that which will increase conflict acrimony.
- Interference by owner in project management will create conflict with construction.
- we should be resolving conflict, on time to avoid disputes.
- Conflict function created from incompatibility by objective between owner and construction company inside project to improve job performance.
- the owner is responsible for the conflict.
- Under lying cause for conflict administrative communication and absence for organization structure and specialization for task and responsibility for each tasked break away of scientific manner of action.
- Conflict translation will be as reaction towards conflict as competition or confederation.
- There is no strategy plan for resolving conflict in construction projects.
- The conflict inside construction sector depended on distribution tasks, and he will management of conflict before losses projects.
- When we discover conflict as individual conflict, must be used special strategies to solve conflict like, with drawl, intermediary solution, coercion, opposition.

- Clear objective, clear view, active communication, positive leader, continuous knowledge in project, all factors to allaying or reducing conflict environment.
- Increase the level of job satisfaction and motivation will reduce or eliminate conflict in project.
- The pace of business in general and projects is accelerating, supply chain becoming longer and more complex, relationship more intertwined and expectations more challenging can to increase opportunities for conflict.

Part four: Development and growth restriction on investment income at Kuwait project construction

- Need to set profit ratio between owner and construction company in contract or tender.
- Are construction sectors in Kuwait have increasing growth ratio and recruitment.
- Making profit is very important to keep alternation in construction sector activity.
- conflict is due to the lack of top management coordination with work parties.
- Government support to construction company will increase their factors success.
- conflict Is due to the lack of coordination at work between the parties.
- Return on investment roll is very important ratio to measure return and keep continuity.
- Increase Capital value is the main reason to growth return on investment in Kuwait construction market.
- Modeling information system for construction (BIM) as engineering solution depend on share technology, so will allow to yield operational efficiency and create saving in cost project.
- Disorder in tabulation Kuwait construction company delay projects its value by hundreds of millions.

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), in Table 3.

Table 3 5-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

Table 0 shows the descriptive statistics for participants' responses towards employees' situation in project, by calculating Frequencies, Percentages, Mean, Standard deviation and Rank.

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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)

Statements		SD	D	UN	A	SA	Mean	Standard deviation	Rank
The real difference exists in work environment inside construction company and the nature of project, because of the type of financing for project from government or private sector.	F	28	2	17	44	72	3.797	1.453	10
	%	17.2%	1.2%	10.4%	27%	44.2%			
All level of management inside construction company at Kuwait State, they have complete knowledge about applied rules which are used to do contract with government part.	F	10	0	25	54	74	4.116	1.073	7
	%	6.1%	0	15.3%	33.1%	45.4%			
Employment in Kuwait construction company have certain risks of regular cash flow for payment of salary and wages.	F	5	0	21	60	77	4.251	0.905	1
	%	3.1%	0	12.9%	36.8%	47.2%			
There are regular training programs for staff to improve their skill at construction company industry.	F	7	0	35	45	76	4.122	1.029	6
	%	4.3%	0	21.5%	27.6%	46.6%			
If sending employees to attend training courses will help to improve company efficiency.	F	8	0	21	59	75	4.184	1.001	4
	%	4.9%	0	12.9%	36.2%	46%			
Training courses or programs in Kuwait construction company will increase investment efficiency.	F	6	0	21	57	79	4.245	0.943	2
	%	3.7	0	12.9	35	48.5			
Using staff rotation will increase experience and qualification at construction company.	F	6	1	37	54	65	4.049	0.992	8
	%	3.7%	0.6%	22.7%	33.1%	39.9%			
Kuwait construction company introduces social services for employees.	F	4	1	31	53	74	4.177	0.929	5
	%	2.5%	0.6%	19%	32.5%	45.4%			
Follow information system between owner and contractor is clear and active.	F	4	0	31	54	74	4.190	0.913	3
	%	2.5%	0	19%	33.1%	45.4%			
The employees in Kuwait construction company have job satisfaction and this has any relation between conflict organization and job satisfaction.	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	

✓ Strongly agree= SA

✓ Agree= A

✓ Uncertain= U.N

✓ Disagree= D

✓ Strongly disagree= SD

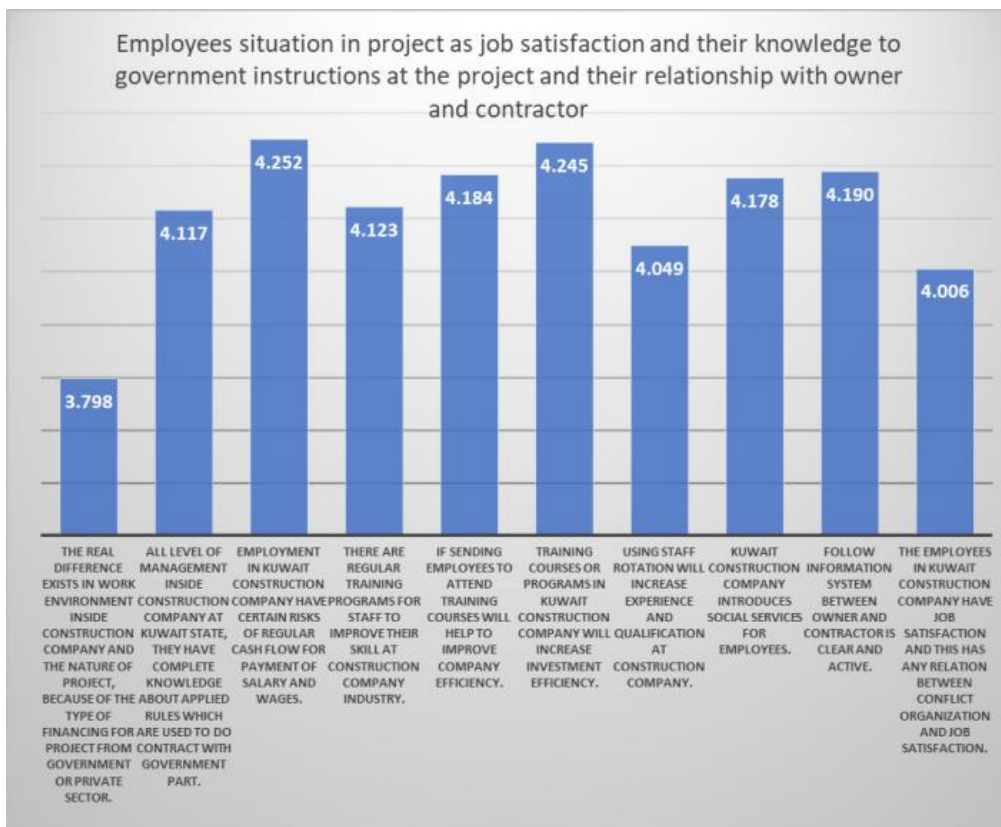


Figure.1 Employees situation in project as job satisfaction and their knowledge to government instructions at the project and their relationship with owner and contractor (Mean)

Table 5 shows the descriptive statistics for participants' responses towards Efficiency law, by calculating

Frequencies, Percentages, Mean, Standard deviation and Rank.

Table 5 Descriptive statistics for participants' responses towards Part 2 (Efficiency law which regulates the Kuwait construction market)

Statements		SD	D	U.N	A	SA	Mean	Standard deviation	Rank
Tender specifications of project contract will be available for all project parties.	F	3	0	49	54	57	3.993	0.906	7
	%	1.8%	0	30.1%	33.1%	35%			
Regulation laws for construction sector in Kuwait are supported by government and private sector to make this sector as leader for economic development.	F	4	10	21	54	74	4.128	1.019	1
	%	2.5%	6.1%	12.9%	33.1%	45.4%			
The internal regulation system for Kuwait construction company is clear and active and complemented to support growth and development.	F	4	10	21	54	74	4.128	1.019	1
	%	2.5%	6.1%	12.9%	33.1%	45.4%			
Duties and rights for construction company under the law are clear.	F	14	12	21	42	74	3.920	1.286	9
	%	8.6%	7.4%	12.9	25.8%	45.4			
Implementation of remuneration law is very important for relevant price differentials.	F	4	12	22	51	74	4.098	1.049	2
	%	2.5%	7.4%	13.5%	31.3%	45.4%			



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Tender law in Kuwait is strong, clear and credible.	F	9	11	23	46	74	4.012	1.170	6
	%	5.5%	6.7%	14.1%	28.2%	45.4%			
Social insurance benefits law inside construction company is equitable between all employees.	F	14	3	23	49	74	4.018	1.204	5
	%	8.6%	1.8%	14.1%	30.1%	45.4%			
It is necessary to create law, to manage the relation between contractor and sub-contractor	F	14	2	22	51	74	4.036	1.190	4
	%	8.6%	1.2%	13.5%	31.3%	45.4%			
Does the engineering and contract law, need to re-evaluated to support construction.	F	14	0	21	54	74	4.067	1.166	3
	%	8.6%	0	12.9%	33.1%	45.4%			
It's necessary to have new criteria for the recruitment of migrant workers and protect rights of expatriate workers and ensuring that quality of the expatriate force is commensurate with the planned development process	F	19	0	21	49	74	3.975	1.281	8
	%	11.7%	0	12.9%	30.1%	45.4%			
Overall							4.038	1.055	

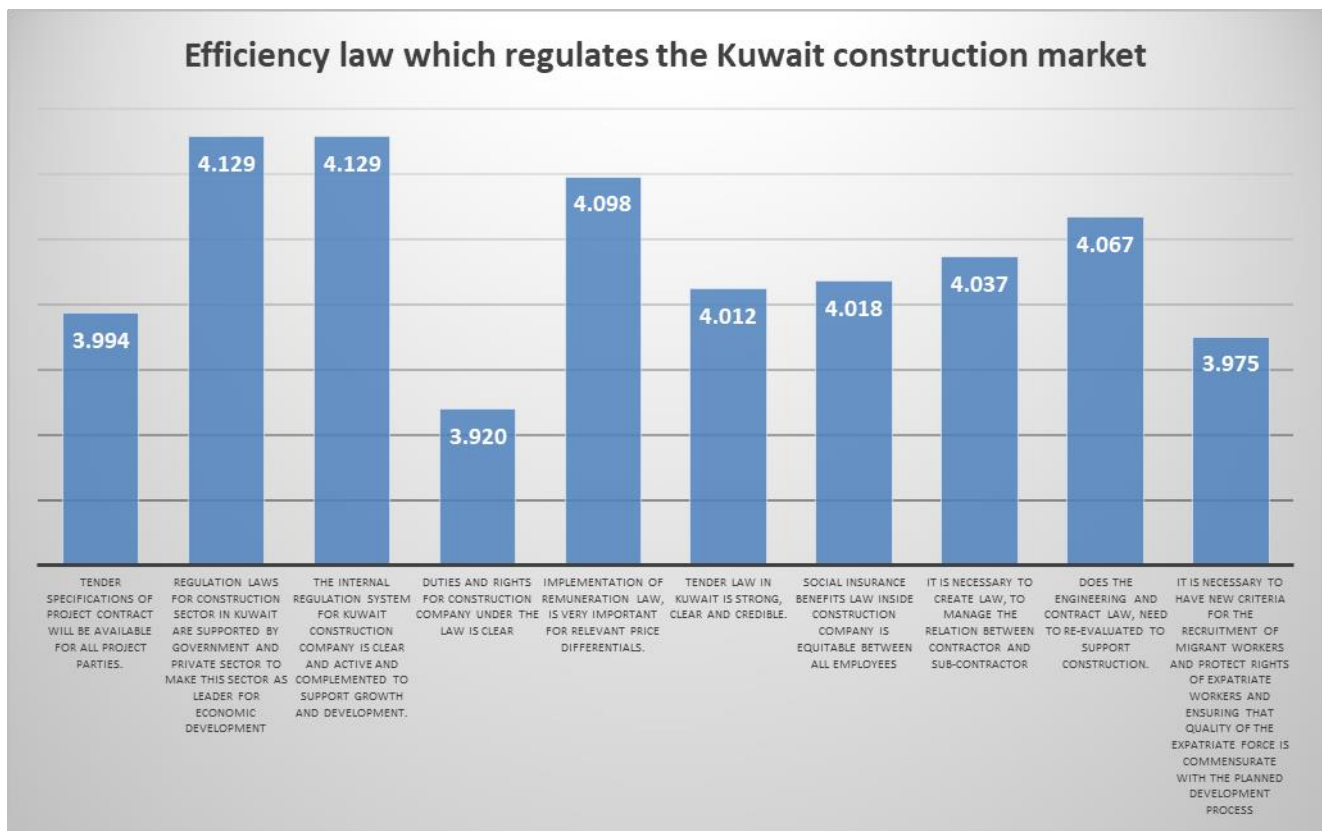


Figure 2 Efficiency law which regulates the Kuwait construction market (Mean)

Table 6 show the descriptive statistics for participants' responses towards Conflict management strategy, by

calculating Frequencies, Percentages, Mean, Standard deviation and Rank.

**Table 6 Descriptive statistics for participants' responses towards
Part 3 (Conflict management strategy between owner and construction company which will improve project)**

Statements		SD	D	U.N	A	SA	Mean	Standard deviation	Rank
There are no planning between owner and construction to controlling the plan	F	21	0	21	51	70	3.914	1.311	9
	%	12.9%	0	12.9%	31.3%	42.9%			
To reduce conflict in managing the Project must have complete knowledge in procedure and instruction and organization which we follow, and how we will apply	F	21	12	21	35	74	3.791	1.416	11
	%	12.9%	7.4 %	12.9%	21.5%	45.4%			
Does are the Owner have problems finance for project , that which will increase conflict acrimony	F	4	12	21	52	74	4.104	1.045	5
	%	2.5%	7.4 %	12.9%	31.9%	45.4%			
Interference by owner in project management will create conflict with construction	F	27	10	21	45	60	3.619	1.449	14
	%	16.6%	6.1 %	12.9%	27.6%	36.8%			
We should be resolving conflict, on time to avoid disputes	F	35	12	21	43	52	3.399	1.525	15
	%	21.5%	7.4 %	12.9%	26.4%	31.9%			
Conflict function created from incompatibility by objective between owner and construction company inside project to improve job performance	F	20	11	21	46	65	3.766	1.363	13
	%	12.3%	6.7 %	12.9%	28.2%	39.9%			
The owner is responsible for the conflict	F	13	10	21	54	65	3.908	1.221	10
	%	8%	6.1 %	12.9%	33.1%	39.9%			
Under lying cause for conflict administrative communication and absence for organization structure and specialization for task and responsibility for each tasked break away of scientific manner of action	F	13	0	21	54	75	4.092	1.142	6
	%	8%	0	12.9%	33.1%	46%			
Conflict translation will be as reaction towards conflict as competition or Confederation	F	26	0	21	54	62	3.773	1.380	12
	%	16%	0%	12.9%	33.1%	38%			
There are not strategy plan for resolving conflict in construction projects	F	12	0	21	54	76	4.116	1.118	3
	%	7.4%	0%	12.9%	33.1%	46.6%			
The Conflict inside construction sector depended on distribution tasks, and he will management of conflict before losses projects.	F	12	0	22	53	76	4.110	1.122	4
	%	7.4%	0%	13.5%	32.5%	46.6%			
When we discover conflict as	F	18	0	21	40	84	4.055	1.282	7

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individual conflict, must be used special strategies to solve conflict like, with drawl, intermediary solution, coercion, opposition	%	11%	0	12.9%	24.5%	51.5%			
Clear objective, clear view, active communication, positive leader, continuous knowledge in project, all factors to allaying or reducing conflict environment	F	6	0	31	52	74	4.153	0.978	2
	%	3.7%	0	19%	31.9%	45.4%			
Increase the level of job satisfaction and motivation will reduce or eliminate conflict in project	F	12	0	32	45	74	4.036	1.148	8
	%	7.4%	0%	19.6%	27.6%	45.4%			
The pace of business in general and projects in particular is accelerating, supply chain becoming longer and more complex, relationship more intertwined and expectations more challenging can to increase opportunities for conflict	F	8	0	21	50	84	4.239	1.017	1
	%	4.9%	0	12.9%	30.7%	51.5%			
Overall							3.938	0.885	

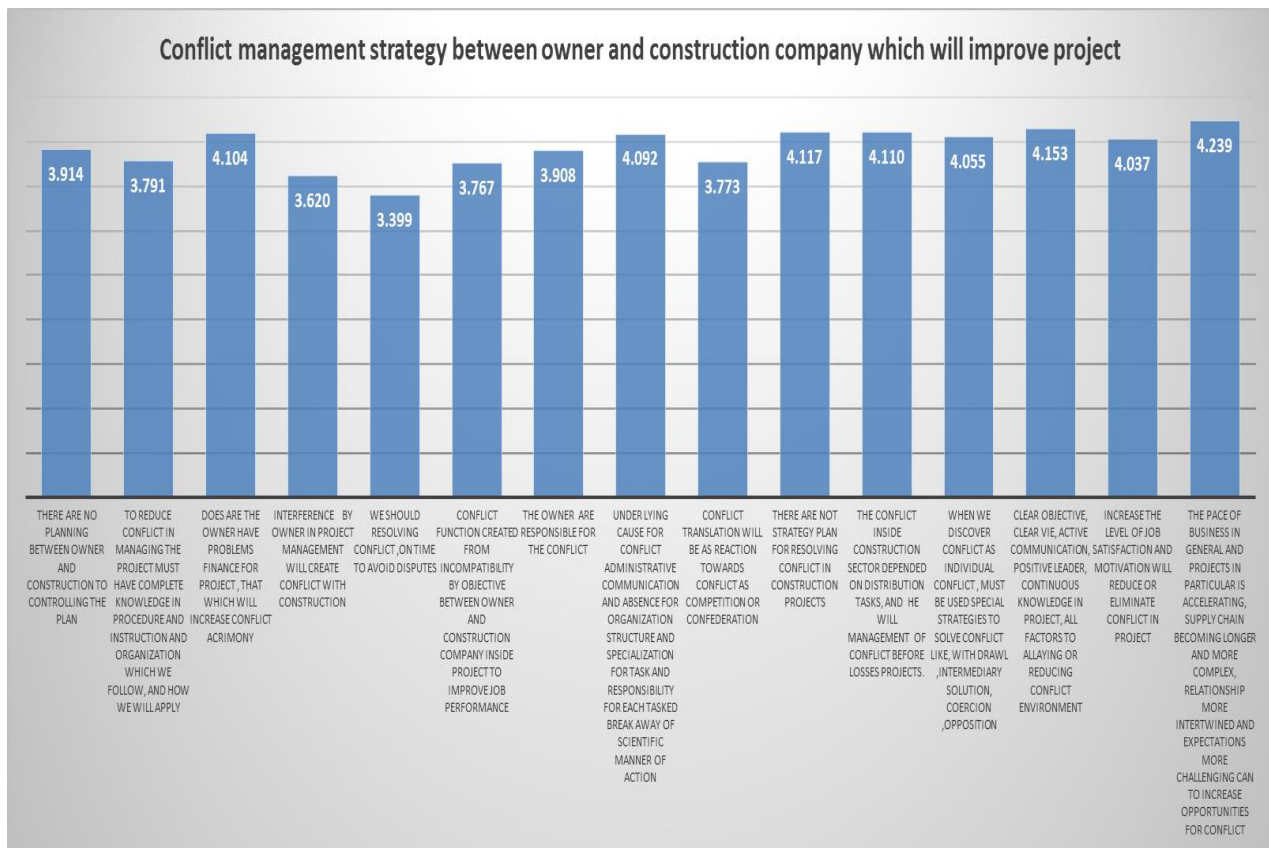


Figure 3 Conflict management strategy between owner and construction company which will improve project (Mean)

Table 7 show the descriptive statistics for participants' responses towards Development and growth restriction,

by calculating Frequencies, Percentages, Mean, Standard deviation and Rank.

**Table 7 Descriptive statistics for participants' responses towards
Part 3 (Development and growth restriction on investment income at Kuwait project construction)**

Statements		SD	D	U.N	A	SA	Mean	Standard deviation	Rank
Need to set profit ratio between owner and construction company in contract or tender	F	21	0	17	41	84	4.024	1.337	2
	%	12.9%	0	10.4%	25.2%	51.5%			
Are construction sectors in Kuwait have increasing growth ratio and recruitment	F	5	0	17	53	88	4.343	0.898	1
	%	3.1%	0	10.4%	32.5%	54%			
Making profit is very important to keep alternation in construction sector activity	F	14	0	31	44	74	3.816	1.402	7
	%	8.6%	0	19%	27%	45.4%			
Conflict is due to the lack of top management coordination with work parties	F	7	31	0	51	74	3.944	1.268	6
	%	4.3%	19%	0	31.3%	45.4%			
Government support to construction company will increase their factors success	F	8	21	3	54	77	4.049	1.205	3
	%	4.9%	12.9%	1.8%	33.1%	47.2%			
Conflict Is due to the lack of coordination at work between the parties	F	20	23	2	51	67	3.748	1.428	9
	%	12.3%	14.1%	1.2%	31.3%	41.1%			
Return on investment roll is very important ratio to measure return and keep continuity	F	13	24	15	44	67	3.785	1.332	8
	%	8%	14.7%	9.2%	27%	41.1%			
Increase Capital value is the main reason to growth return on investment in Kuwait construction market	F	12	1	29	54	67	4.000	1.133	4
	%	7.4%	0.6%	17.8%	33.1%	41.1%			
Modeling information system for construction (BIM) as engineering solution depend on share technology, so will allow to yield operational efficiency and create saving in cost project	F	11	0	35	50	67	3.993	1.113	5
	%	6.7%	0	21.5%	30.7%	41.1%			
Disorder in tabulation Kuwait construction company delay projects its value by hundreds of millions	F	35	23	67	14	24	2.809	1.284	10
	%	21.5%	14.1%	41.1%	8.6%	14.7%			
Overall							3.851	0.874	

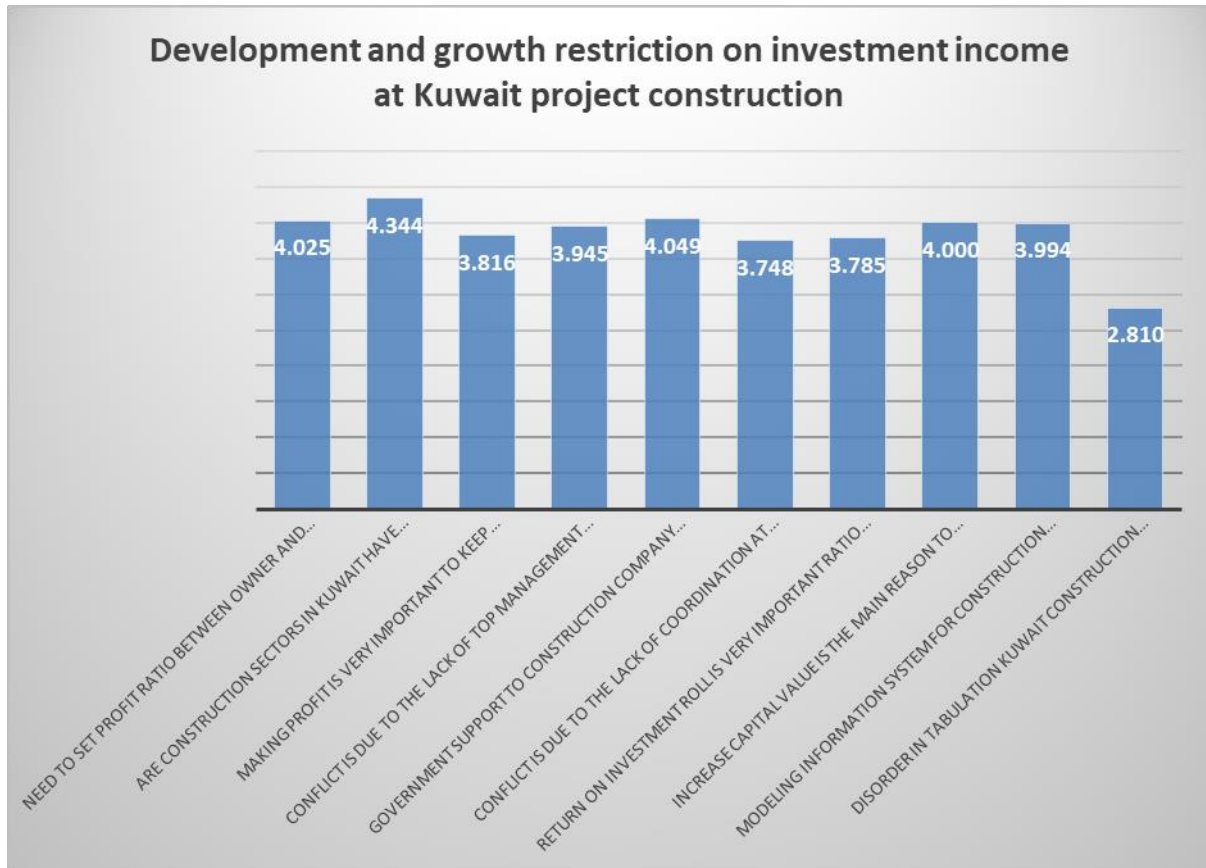


Figure 4 Development and growth restriction on investment income at Kuwait project construction (Mean)

VII. 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 8 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).

instructions at the project and their relationship with owner and contractor?

VIII. SUMMARY OF ANSWERS TO THE QUESTIONS

- 1) What is the employee's situation in project (engineering, technical non-technical employees) as job satisfaction and their knowledge to government

Results in Table 4 show that the statement with highest agreements was (Employment in Kuwait construction

company have certain risks of regular cash flow for payment of salary and wages) by mean score (4.251), while least responses was for (The real difference exists in work environment inside construction company and the nature of project, because of the type of financing for project from government or private sector) by mean score (3.797) , the overall mean score of employee's situation section was (4.114) out of (5) degrees with St. Deviation of (0.903) 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.

2) How efficiency law regulates the Kuwait construction market?

Results in Table 5 show that the statement with highest agreements was (The internal regulation system for Kuwait construction company is clear and active and complemented to support growth and development) by mean score (4.128), while least responses was for (Duties and rights for construction company under the law are clear) by mean score (3.920) , the overall mean score of efficiency law section was (4.038) out of (5) degrees with St. Deviation of (1.055) 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.

3) What is the conflict management strategy used in construction projects in Kuwait International Airport Cargo City?

Results in Table 6 show that the statement with highest agreements was (The pace of business in general and projects in particular is accelerating, supply chain becoming longer and more complex, relationship more intertwined and expectations more challenging can to increase opportunities for conflict) by mean score (4.239) , while least responses was for (We should be resolving conflict, on time to avoid disputes) by mean score (3.399) , the overall mean score of conflict management strategy section was (3.938) out of (5) degrees with St. Deviation of (0.885) 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.

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

Results in Table 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.

5) 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. The conflict management strategy of construction project related with the employee's situation in project with ($r=0.872$, $p < 0.01$). The conflict management strategy of construction project related with the efficiency law which regulates the Kuwait construction market with ($r= 0.799$, $p < 0.01$). The conflict management strategy of 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 with Beta 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.

IX.CONCLUSION

The study was done for investigating the idea of expert conflicts inside the development conflict management of construction project in Kuwait international airport and making proposals for methods for limiting or dispensing with them as such conflict as a rule influence consummation of undertakings and to a substantial degree crush the relationship among partners. On occasion, it is additionally expensive and time squandering and there is no critical positive commitment to the development business.

Past deals with the examination point were investigated and proper survey planned with the view to acquiring an inside and out learning about conflict inside the development project. The polls were disseminated for the most part to the main partners chose for the investigation. From the consequences of the review, it ended up obvious that conflicts do truly exist and the idea of such conflicts is with the end goal that, it is common and unavoidable. It could be started by any of the partners in view of correspondence issues, human instinct not being immaculate which can achieve contradictions which if not settled auspicious can prompt conflicts.

The general significance of the reasons for conflicts at task destinations has been recognized plainly in this examination. The recognizable proof of the imperative reasons for struggle from this study can concentrate of development chiefs to design preventive activities to thwart any conflicts at building locales.

Every development venture is interesting and complex. A novel arrangement of illustrations and particulars are utilized to depict every developmental stage. The illustrations and related archives for the most part performed by a general contractual worker and a few

subcontractors, a considerable lot of whom have not cooperate beforehand. The one of a kind parts of each task and the interesting constitution of every development group are regular explanations behind differences to happen. The survey showed that multiple factors impact on the conflicts and delays and there is no single solution. Multiple strategies need to be employed to be able to have successful project completions.

REFERENCES

1. Al-Sabah, S.J.A. 1997, *Construction disputes and claims in Kuwait*, University of Birmingham, School of Civil Engineering, Faculty of Engineering.
2. Charehzehi, A., Chai, C., Md Yusof, A., Chong, H. Y., & Loo, S. C. (2017). Building information modeling in construction conflict management. *International Journal of Engineering Business Management*, 9, 1847979017746257.
3. Fenn, P., Lowe, D., & Speck, C. (1997). Conflict and dispute in construction. *Construction Management and Economics*, 15(6), 513– 518.
4. Femi, Okuntade Tope. "Causes and effects of conflict in the Nigerian construction industry." *International journal of technology enhancements and emerging engineering research* 2.6 (2014): 7-16.
5. Gamil, Yaser, and Ismail Abdul Rahman. "Identification of causes and effects of poor communication in construction industry: A theoretical review." *Emerging Science Journal* 1.4 (2018): 239-247.
6. Loosemore, M. 2000. *Construction crisis management*. New York, American Society of Civil Engineers.
7. Langford, D. A., Kennedy, P., & Sommerville, J. (1992). Contingency management of conflict: analysis of contract interfaces. *Construction conflict management and resolution*, 63.
8. Saikat Maiti & Jae-ho Choi (2018) Investigation and implementation of conflict management strategies to minimize conflicts in the construction industry, *International Journal of Construction Management*, DOI: 10.1080/15623599.2018.1536964
9. Nunnally, Jum C., and Ira H. Bernstein. "The theory of measurement error." *Psychometric theory* 3 (1994): 209-247.
10. Shapiro, B. (2005), *Inherent conflicts in the construction industry and the structure of contracts*, *Fundamentals of Construction Contracts: Understanding the Issues* conference, Lorman Education Services, Vancouver, BC.