

CONFLICT MANAGEMENT IN ENGINEERING
CONSTRUCTION: A CASE STUDY OF KUWAIT
INTERNATIONAL AIRPORT CARGO CITY

BY

MOHAMMAD KH TH E ALAZEMI

A thesis submitted in fulfilment of the requirement for the
degree of Doctor of Philosophy (Engineering)

Kulliyyah of Engineering
International Islamic University Malaysia

OCTOBER 2019

ABSTRACT

Exchanges within construction teams have often been found to be argumentative, conflict, and crisis-ridden, and as a result, the individual worker in the industry is exposed to extreme hostility. These conflicts result from disagreements about ways of solving on-the-spot site-related problems, insufficient planning, ill-prepared contract documents, and the lack of co-ordination 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. The 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 analysed with 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 the form of progress reports, site report, and meeting the project team on site. 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 project construction sites. The conflict management strategy of the 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 a 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 [No]; and 20.2% [Do not know].

خلاصة البحث

غالبًا ما تكون عمليات التبادل داخل فرق البناء جدلية مليئة بالصراعات والأزمات ، ونتيجة لذلك، يتعرض الفرد العامل في الصناعة إلى عداء شديد. تنتج هذه النزاعات عن خلافات حول طرق حل المشكلات المتعلقة بالموقع على الفور، والتخطيط غير الكافي، ووثائق العقود غير المعدة جيدًا، والافتقار إلى التنسيق بين الأطراف المتعاقدة. ويميل الأعضاء في مشروع البناء إلى تكوين مجتمع مع مجموعة معقدة من العلاقات المتشابكة. لذلك، تبدي النزاعات المستمرة بين الأعضاء مزيداً من الخلافات التي يمكن أن تدمر المشروع وتؤدي إلى تقاضي شائك، وتضخيم التكلفة، وانهيار الاتصال، ونقل المهام المتوترة. ولذلك تسعى هذه الدراسة إلى اكتشاف أسباب هذه النزاعات في قطاع البناء والطرق التي يتم بها حل هذه النزاعات. تم استخدام التصميم الكمي جنباً إلى جنب مع استبيان مقطعي موجه نحو إدارة النزاع لمشاريع البناء في مطار الكويت الدولي. تم توزيع ما مجموعه 188 استبياناً، منها 14 فُقدت ، ولم يتم الرد على 11 منها. تم تسجيل ردود 163 مشاركاً وتحليلها باستخدام (SPSS) لإصلاح مشكلة الثقة، اشتملت الدراسة على متابعة لحالة المشروع باستخدام النظام الأساسي الرقمي لبرنامج BIM في شكل تقارير مرحلية، تقرير الموقع، وكذلك اجتماع فريق المشروع في الموقع. تشير النتائج إلى أنّ استراتيجية إدارة النزاع الخاصة بمشروع البناء ترتبط ارتباطاً قوياً بوضع الموظف، الكفاءة، القانون، التنمية، وقيود النمو دخل الاستثمار في مواقع إنشاء المشروع. وتم العثور على أنّ استراتيجية إدارة النزاع لمشروع البناء لها تأثير إيجابي على أداء العمال في مشاريع البناء مع قيمة Beta Coefficient تساوي 0.904؛ مما يشير إلى أنه بالنسبة لزيادة وحدة واحدة في استراتيجية إدارة النزاع ، فإن أداء مشاريع البناء في مدينة الشحن بمطار الكويت الدولي سيزيد بمقدار 0.904 وحدة. وأخيراً، عندما سُئل المشاركون عما إذا كان هناك تأخير في المشروع أم لا ، أجاب 63.2% من إجمالي العينة [نعم] بأعلى نسبة مئوية ، بينما أجاب 16.6% من إجمالي العينة [لا] ؛ و 20.2% [لا أعرف].

APPROVAL PAGE

The thesis of Mohammad Kh Th E Alazemi has been approved by the following:

A K M Mohiuddin
Supervisor

Norhashimah Mohd Shaffiar
Co-Supervisor

Erry Yulian Triblas Adesta
Internal Examiner

Faizal Mustapha
External Examiner

Yupiter Harangan P. Manurung
External Examiner

Mohd Feham Md. Ghalib
Chairman

DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Mohammad Kh Th E Alazemi

Signature

Date

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF FAIR
USE OF UNPUBLISHED RESEARCH**

**CONFLICT MANAGEMENT IN ENGINEERING CONSTRUCTION:
A CASE STUDY OF KUWAIT INTERNATIONAL AIRPORT
CARGO CITY**

I declare that the copyright holders of this thesis are jointly owned by the student and IIUM.

Copyright © 2019 Mohammad Kh Th E Alazemi and International Islamic University Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below

1. Any material contained in or derived from this unpublished research may be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
3. The IIUM library will have the right to make, store in a retrieved system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understand the IIUM Intellectual Property Right and Commercialization policy.

Affirmed by Mohammad Kh Th E Alazemi

.....
Signature

.....
Date

*This thesis is dedicated to my late parents for laying the foundation of what I turned
out to be in life*

ACKNOWLEDGEMENTS

In the Name of Allah, the Most Compassionate, the Most Merciful

All glory is due to Allah, the Almighty, whose Grace and Mercies have been with me throughout the duration of my program. Although it has been tasking, His Mercies and Blessings on me ease the herculean task of completing this thesis.

I am most indebted to my supervisor, Prof. Dr. A K M Mohiuddin, whose enduring disposition, kindness, promptitude, thoroughness, and friendship have facilitated the successful completion of my work. I put on a record and appreciate his detailed comments, useful suggestions, and inspiring queries which have considerably improved this thesis. His brilliant grasp of the aim and content of this work led to his insightful comments, suggestions, and queries, which have helped me a great deal. Despite his commitments, he took the time to listen and attend to me whenever requested. The moral support he extended to me is in no doubt, a boost that helped in building and drafting the literature and the manuscript of this research work. I am also grateful to Assoc. Prof. Dr. Siti Fauziah Bt. Toha and Prof. Dr. Erry Yulian T. Adesta, whose support and cooperation contributed to the outcome of this work.

Lastly, my gratitude goes to my beloved mother and wife and lovely children; for their prayers, understanding, and endurance when I am away from home on lengthy occasions.

Once again, we glorify Allah for His endless mercy on us, one of which is enabling us to successfully round off the efforts of compiling the literature for this thesis. *Alhamdulillah.*

TABLE OF CONTENTS

Abstract	ii
Abstract in Arabic	iii
Approval Page	iv
Declaration Page	v
Copyright Page	vi
Acknowledgment	viii
Table of Content	ix
List of Tables	xii
List of Figures	xiii
List of Abbreviations	xiv
CHAPTER ONE: INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Statement	2
1.2.1 Research Questions	3
1.3 Research Objectives	4
1.4 Research Hypothesis	5
1.5 Research Variables	6
1.6 Hypothesis Testing	6
1.7 Significance of the Research	9
1.8 Research Philosophy	10
1.9 Research Scope	11
1.10 Organization of the Thesis	12
CHAPTER TWO: LITERATURE REVIEW	14
2.1 Introduction	14
2.2 The Phenomenon of Conflicts	15
2.3 Developmental Stage of Conflict	15
2.3.1 Latent Conflict	16
2.3.2 Perceived Conflict	18
2.3.3 Felt Conflict	20
2.3.4 Manifest Conflict (Behaviour)	21
2.3.5 Conflict Aftermath	22
2.3.6 Functional and Dysfunctional Conflict	24
2.4 Types of Conflict	26
2.4.1 Personal Conflict of Interests	27
2.4.2 Financial Conflict of Interests	27
2.4.3 Non-Financial Conflict of Interests	27
2.5 Levels of Conflict	28
2.5.1 The Conflict Between People	28
2.5.2 Role Conflict	28
2.5.3 Intergroup Conflict	29
2.5.4 Multi-Party Conflict	30
2.5.5 International Conflict	30
2.6 Trends of Conflict	30

2.7 Models of Organizational Conflict	31
2.7.1 Bargaining Model of Conflict	32
2.7.2 Bureaucratic Model	33
2.7.3 Systems Model	35
2.8 Organizational Causes of Conflict	37
2.8.1 Coordination of Work Between Groups	37
2.8.2 The Use of Competing Organizations as A Strategy to Motivate Employees	38
2.9 Benefits of Conflict	40
2.10 Nature of Construction Industry	42
2.11 Conflict Sources in Construction Projects	44
2.11.1 Conflict Between Stakeholders	47
2.12 The Construction Sector in Kuwait	49
2.13 Improving Conflict Management Process in Kuwait State	50
2.14 Recent Relevant Studies on Conflict Management	51
2.15 Summary	60
CHAPTER THREE: RESEARCH METHODOLOGY	61
3.1 Introduction	61
3.2 Research Sample and Population	61
3.3 Qualitative Analysis	63
3.4 Quantitative Analysis	63
3.4.1 Questionnaire	63
3.4.2 Questionnaire Participants	63
3.4.3 Distribution of Questionnaire	64
3.4.4 Questionnaire Likert Scale	64
3.5 Description on Questionnaire Questions	64
3.5.1 Part 1: Project Situation for Employees	64
3.5.2 Part 2: Law Efficiency in the Market	66
3.5.3 Part 3: Conflict Management Strategy	67
3.5.4 Part 4: Development and Growth Restriction of Investment	68
3.6 Data Analysis	69
CHAPTER FOUR: RESULTS AND DISCUSSION	71
4.1 Overview	71
4.2 Research Results	71
4.2.1 Demographic Statistics	71
4.2.2 Reliability Testing	75
4.3 Questionnaire Results	76
4.4 Relations Between Study Variables	86
4.5 Impact Model	87
4.6 Discussions	88
4.6.1 Answering the First Question	88
4.6.2 Answering the Second Question	89
4.6.3 Answering the Third Question	89
4.6.4 Answering the Fourth Question	90
4.6.5 Answering the Fifth Question	90

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION	92
5.1 Conclusion	92
5.2 Recommendations	94
5.2.1 Building Information Modelling (BIM) Application	95
5.2.2 Education & Training for Project Manager	95
5.2.3 Improvement in Teamworking	96
5.2.4 Leadership Factor of Project Manager	96
5.2.5 Formidable Project Communication System	96
5.2.6 Proper Documentations	97
5.2.7 Proper Construction Method	97
5.2.8 Qualified Project Personnel	97
REFERENCES	98
APPENDIX	108
APPENDIX A	108
APPENDIX B	114
LIST OF PUBLICATIONS	170

LIST OF TABLES

Table 2.1	Causes of conflicts in construction project (various resources)	48
Table 2.2	The elements of construction management projects manager competency	59
Table 4.1	Demographic Data of the Participants (N = 163)	72
Table 4.2	Cronbach's Alpha Reliability result	76
Table 4.3	5-points Likert scale	76
Table 4.4	Descriptive statistics for responses in Questionnaire Part 1.	77
Table 4.5	Descriptive statistics for responses in Questionnaire Part 2	79
Table 4.6	Descriptive statistics for responses in Questionnaire Part 3	81
Table 4.7	Descriptive statistics for responses in Questionnaire Part 4	84
Table 4.8	Correlations Matrix	87

LIST OF FIGURES

Figure 1.1	The general overview on research methodology	11
Figure 1.2	Thesis organization flow chart	13
Figure 2.1	Latent conflict stage	18
Figure 2.2	The dynamics of a conflict episode	24
Figure 2.3	Functional and dysfunctional conflict model	25
Figure 2.4	The economic analysis on bureaucracy	34
Figure 2.5	Cyclical model for conflict management in the construction sector	37
Figure 3.1	Flow of research methodology	62
Figure 4.1	Demographic Data of the Participants (N = 163), from gender (a), project delay (b), job (3), position (d), and age (e).	75
Figure 4.2	Employees situation in the project as job satisfaction and their knowledge to government instructions at the project and their relationship with owner and contractor (Mean)	78
Figure 4.3	Efficiency law which regulates the Kuwait construction market (Mean)	80
Figure 4.4	Conflict management strategy between owner and construction company which will improve the project (Mean)	83
Figure 4.5	Development and growth restriction on investment income at Kuwait project construction (Mean)	86
Figure 4.6	Conflict management strategy impact model on the performance of construction projects in Kuwait International Airport Cargo City	88

LIST OF ABBREVIATIONS

AEC	Architecture, Engineering and Construction
AHP	Analytical hierarchy process
BCMPs	Best Co-Management Practices prioritization
BIM	Building information modelling
BMPs	Best Management Practices
GBC	Green building construction
MAUT	Multi attribute utility technique
MCDM	Multiple-criteria decision-making
MCDM	Multi-criteria decision-making
PMBOK	Project Management Body of Knowledge

CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

The occurrence of conflict in a construction project is something innate and customary to be found. The character of a construction process, which is complex and most of the time involve lengthy mechanisms, leads to this usual manifestation of conflicts (McManamy, 1994). Furthermore, the involvement of knowledge from various disciplines contributes to the formation of disputes between the groups participating in that project. For the construction industry itself, the presence of conflict is unavoidable, particularly when a project encountered numerous factors of uncertainties (Whitfield, 1994).

Despite of the adverse analogues, a conflict can still be deemed to be necessary for organisations, contractual relationships, small teams, and individuals. Due to the existence of diversified multifunctional teams and groups, combined with the complex and extraordinary characteristics of a construction project, the development of conflict has been found to be imminent. For this reason, Ellis & Baiden (2008) argued that the environment of a construction industry is suitable for the exploration of conflict, as well as in finding the management effort to mitigate the effects. The statement was in accordance to an earlier study made by Fenn & Gameson (1992) where conclusion showed that disputes always arise when architects, contractors, and owners collaborate together in a project. The conflicts, that have been induced by the development of disputes, were usually caused by the disagreements, different opinions, and different interpretations on how things should be done.

The root cause of disagreement and disputes in a project may be caused by the poor enactment of communication and correspondence between the stakeholders involved. To repair and improve the quality of project correspondence, the current research suggests the utilization of few strategies, including the follow-up action of project progress reporting, provision of motivation to site teamwork, opening the decision-making mechanism to the team, and the utilisation of Building Information Modelling (BIM) software. The last component of BIM software involves several item checklist of task approvals, project progress, actionable checklist, site review, database management, delays prediction, costs calculation, last action description, review on contractual documents, and other issues related to the project that can be used to avoid conflict.

1.2 PROBLEM STATEMENT

It has been emphasized by Panagiotis & Gregory (2001) and El-Adaway & Kandil (2010) that conflict is often inevitable in the construction industry. Their assessment also revealed that the occurrence is oftentimes excessive and have been considered as a major negative factor in the industry. Particularly in the construction industry, there are two types of conflict where large-construction projects often suffered from. They are the internal conflict and the interface conflict (Al-Sibai & Alashwal, 2014). The internal conflicts include all the conflicts that occur within the related project, while the interface conflicts involve the parties with no direct relation and considered to be an outsider to the project itself.

The current research highlights the case of internal conflicts that may happen in a construction project and faced by the internal stakeholders of the project, including developers, contractors, and consultants. The internal stakeholders, also known as

project stakeholders, are the individuals or groups that are actively participating in a project whose preferences can be positively or negatively affected by the project, and hence resulting in the success of the project itself (Project Management Institute, 2008).

A project can be defined as a set of activities with a limited period of working time and temporary in nature (Pinha & Ahluwalia, 2019). Within the specified period of time, the work effort should include the mobilisation of resources and structuring frameworks to achieve goals and expectations that have been set by convention (Tonchia, 2008). In an infrastructure construction project, the series of activities are initiated by the procreation of ideas that follows a set of study to evaluate the feasibility of the project execution. The consecutive actions include the preparation of preliminary and detailed project design, purchase of resources, construction building on the designated sites, and the maintenance of the buildings before the handover from the project owner to the clients.

1.2.1 Research Questions

The following questions will be posted to assist in achieving the objectives of the study:

1. What is the employee's position in the project (engineering, technical non-technical employees) concerning job satisfaction and their knowledge to government instructions of the project; and their relationship with the owner and contractor?
2. How efficiency law regulates the Kuwait construction market?
3. What is the conflict management strategy used in construction projects in Kuwait International Airport Cargo City?

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

1.3 RESEARCH OBJECTIVES

The purpose of the current research is to find the encounters of management methods, as well as to inspect the possibility of adopting and adapting their applications, in the construction development of Kuwait International Airport Cargo City. At the same time, it is aimed to find solutions from the overall objective of the research endeavour, as stipulated below:

1. To investigate the leading causes, signs, and symptoms of conflict in the field of construction projects, and to study them in determining the reasons that lead to the conflict itself.
2. To identify the most common methods used to manage and control the conflict management of a construction project.
3. To determine the level of commitment of contractors and customers towards the contracts provided at the beginning of the project.
4. To study the impact of construction project conflict towards the performance of future projects.

5. To examine the effect of a small amount of constructive encouragement on the performance of workers, such as motivations for the workers and engineers.

1.4 RESEARCH HYPOTHESIS

The research was built based on two types of hypothesis, as follows:

Null hypothesis:

- The conflict management strategy of a construction project does not affect the employee's situation in the project considering their job satisfaction and knowledge of government instructions regarding the project; and their relationship with the owner and contractor.
- The conflict management strategy of a construction project does not affect the efficiency of law that regulates the Kuwait construction market.
- The conflict management strategy of a construction project does not affect the development and growth restrictions on the investment income at Kuwait project construction.
- The conflict management strategy of a construction project does not affect the performance of the workers in a construction project.

Alternative hypothesis:

- The conflict management strategy of construction project affects the employees' situation as their job satisfaction and knowledge of government instructions regarding the project; and their relationship with the owner and contractor.
- The conflict management strategy of construction project affects the efficiency of law which regulates the Kuwait construction market.

- The conflict management strategy of construction project affects the development and growth restriction on the investment income at Kuwait project construction.
- The conflict management strategy of construction project affects the performance of the workers in construction projects.

1.5 RESEARCH VARIABLES

Research variables are as follows:

- The gender of employees in construction projects.
- The age of workers in the construction company in Kuwait.
- The job description for employees in construction projects.
- The position for managers and engineers in construction projects.

1.6 HYPOTHESIS TESTING

The statistical tests for hypotheses, including the correlation coefficient to evaluate the correlation factor between the conflicts and workers' performance as well as their productivity, have been analysed.

Hypothesis testing is considered as one of the methods that have been used to test a hypothesis or a claim regarding a parameter in a population by using the measured data in a sample. In this technique, many hypotheses will be tested by specifying the possibility that a statistic of the sample could have been chosen, if the hypothesis related to the parameter population were true.

The methods for hypothesis testing can be summarized or divided into main four steps, as follows:

- The first step is to state the available hypotheses. Then, from the beginning, to determine the population means value in a null hypothesis (H_0) by acknowledging that the presumptions should be true. For the conflict effect on the workers' performance, the null hypothesis is that the conflict has a negative effect on the performance of workers in construction projects. This assumption is considered as the beginning point in deciding whether this hypothesis is true based on the premise that it is indeed true. The decision is to specify whether this assumption is final.
- The second stage is to determine the criteria for the decision-making. In order to determine the criteria to make a suitable decision, the level of importance must be determined for a test. In hypothesis testing, the data is collected to explain that the “null hypothesis (H_0)” is not true, depending on the probability of the mean value selection of the sample from a population. In behavioral research, the level of importance or probability is usually set at 5%. If the likelihood of obtaining a sample is greater than 5% when the null hypothesis is true, then it is concluded that the selected sample is unlikely so that the null hypothesis will be rejected. The level of importance indicates a judgment criterion made upon the decision concerning the stated value in a null hypothesis.
- The third step involves the calculation of the test statistics. The taken assumption is that the conflict management of construction project leads to a decrease in the performance of workers in construction projects. To make a decision, there is a need to assess the probability of the sample outcome, if the mean of the population stated that the null hypothesis is true — a test statistic used in order to specify this probability. In particular, a statistical test explains the mean value

of the sample, the value of standard deviations, the higher value of the test statistics, and the sample mean value as well as its distance. The test statistical value is used to decide what kind of process should be taken in the next step.

- The fourth step is the decision-making. Test statistical value has been used to evaluate the null hypothesis-related components. In addition, the decision-making depends on the likelihood of obtaining the mean value of the samples, by assuming that the stated value in the “null hypothesis” is true. The decision will be the rejection of the null hypothesis if the likelihood of obtaining the mean of the sample is more significant than 5% (because the sample size is large) if the null hypothesis is true. The decision will be the retaining of the null hypothesis when the likelihood of obtaining a sample is more significant than 5% if the null hypothesis is true, then, there are two decisions can be taken as follows:
 - The first decision made is the rejection of the null hypothesis: The mean of the sample is linked with the low likelihood of occurrence in the case of the null hypothesis is true.
 - The second decision made is the retain of the null hypothesis. The mean of the sample is linked with a high likelihood of occurrence in the case of the null hypothesis being true. In addition, the likelihood of obtaining a sample mean, considering that the stated value in the null hypothesis, is true. The value of (p) represents a probability: P-value changes from 0 to 1.

Value of p (p-value) signifies the likelihood of obtaining the outcome of the sample by considering that the stated value in the “null hypothesis” is true. In addition, the p-value that is previously used to obtain the outcome of the sample is compared with the

significance level. The significance level describes a decision process that is made concerning the stated value in the null hypothesis. In the case of the null hypothesis being rejected, the significance level will be attained, and the responses would be said as significantly different. In the case of the null hypothesis being accepted and retained, the significance level would not have been reached.

1.7 SIGNIFICANCE OF THE RESEARCH

Building construction is one of the vital commercial activities in our lives. The construction activities have been delivering several types of public facilities as the results of their projects, including housing area, schools, shopping malls, and many others. The building constructions utilize many different types of assets, most of them are rare and irreplaceable. Due to this aspect, it is very important for a construction project to be carried out in the most practical and productive way.

Conflicts in construction projects have been discussed by several authors (Ding, 2011; Fenn et al., 1997; Haque & Rahman, 2009; Kumaraswamy & Yogeswaran, 1998; Loosemore, 2000; Song et al., 2017; Spiess & Felding, 2008) and described as one component that impair the development, achievement, and delivery of the project. In a worse situation where the effort to manage the conflict fails, then the project may suffer from a disastrous loss. One effort to eliminate the peril of conflict in a construction project is by the exercise of conflict management through certain set of examination by referring to the techniques that have been utilized in the construction industry, particularly a decent information relay for stakeholders and involved parties, especially those in the manufacturing sector.

The evaluation on the effect of conflict management in the construction project of Kuwait International Airport Cargo City, provided by this current research, can serve

as a reference for the comparable industries other than constructions in dealing with conflict and disputes that may happen in their companies. In this way, it is critical to have a full comprehension on the concept of conflicts that undertake the project, in order to carry the proper arrangement of tasks that serve as the basis of administration and management system.

The evaluation of the current research also serves the information of the conflict map by addressing concerns where disputes might happen during the full course of Kuwait International Airport Cargo City construction project, and then projecting those data for other projects at Kuwait in general. The most significant contribution is probably the chances for other similar project exercises to adopt the methodologies and instruments from this research, particularly for the executives of the project to evade or at the very least to alleviate the impact of conflict towards their project. The additional information produced by this research on the administrative data of the project structure should also be useful for project directors, engineers, designers, workers, and customers in the construction industry. The generated data and information can similarly be utilized as databases for building up a framework to control conflicts in the construction of open structures and other public-related works by the state of Kuwait.

1.8 RESEARCH PHILOSOPHY

A method of research may be qualitative or quantitative and can also be the combination of the two (qualitative and quantitative) called the mixed method. The study will thus combine both qualitative and quantitative methods in collecting data, as shown in Figure 1.1. The literature review was performed to accumulate the list of disputes, the instigating elements, and the popular clash-resolving methods as self-governing variables. The confirmation of the self-governing variables was recognized from the