THE CAUSAL FACTORS OF INTERPERSONAL CONFLICT IN THE LIBYAN CEMENT INDUSTRY

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THE CAUSAL FACTORS OF INTERPERSONAL CONFLICT IN THE LIBYAN CEMENT INDUSTRY

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DEDICATION

I dedicate this work to the spirit of my beloved mum who waited for the completion of this work eagerly

Munira
ACKNOWLEDGEMENTS

I would like to thank God for his help and support that resulted in the completion of this thesis.

I am heartily grateful to my supervisor, Professor David Eaton, for his continuous support, encouragement, patience and follow up. I owe him lots of gratitude for his professional supervision of this research (from the preliminary stages to the concluding level) which enabled me to develop an understanding of the subject.

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I feel a deep sense of gratitude to my friends and family for their love, support and encouragement.

Special thanks are given to the Libyan Ministry of Higher Education for their sponsorship of my study in the UK.
DECLARATION

I declare that this thesis is based on an original investigation and full acknowledgment is given of all sources used. This study has not been previously submitted for a degree or a similar award at any institution. To the best of the researcher’s knowledge and belief, this work contains no material previously published or written by another person where due reference is not made in the work itself.

Some parts of this thesis have been published in the Journal of the Built and Human Environment and in international refereed conference proceedings. The following is a list of publications of the applicant which are direct products from this thesis.


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<td>ACC</td>
<td>Ahlia Cement Company</td>
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<td>BCA</td>
<td>British Cement Association</td>
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<tr>
<td>BOHI</td>
<td>Board of Housing and Infrastructure</td>
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<tr>
<td>CIA</td>
<td>Central Intelligence Agency</td>
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<td>ESDF</td>
<td>Economic and Social Development Fund</td>
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<td>EIA</td>
<td>Energy Information Administration</td>
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<td>GNC</td>
<td>General National Congress</td>
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<td>GCR</td>
<td>Global Cement Report</td>
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<td>GPC</td>
<td>General People’s Committee</td>
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<tr>
<td>HIB</td>
<td>Housing and Infrastructure Board</td>
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<tr>
<td>IGB</td>
<td>Industrial General Board</td>
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<tr>
<td>IGB</td>
<td>Industrial General Board</td>
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<td>IPC</td>
<td>Interpersonal Conflict</td>
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<td>JLCC</td>
<td>Joint Libyan Cement Company</td>
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<td>LCC</td>
<td>Libyan Cement Company</td>
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<tr>
<td>LCI</td>
<td>Libyan Cement Industry</td>
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<td>MIPC</td>
<td>Managing Interpersonal Conflict</td>
</tr>
<tr>
<td>MM</td>
<td>Middle management</td>
</tr>
<tr>
<td>MOC</td>
<td>Managing Organisational Conflict</td>
</tr>
<tr>
<td>NAID</td>
<td>National Authority for Information and Documentation</td>
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<td>NTC</td>
<td>National Transitional Council</td>
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<tr>
<td>OC</td>
<td>Organisational Conflict</td>
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<td>SM</td>
<td>Shop floor management</td>
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<td>SMS</td>
<td>Stress management society</td>
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<td>TM</td>
<td>Top management</td>
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<tr>
<td>TNC</td>
<td>Transitional National Council</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<td>WOR</td>
<td>Workers</td>
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The Causal Factors of Interpersonal Conflict in the Libyan Cement Industry

Abstract
Organisations are becoming more complex and diverse in responding to globalisation and to internal and external changes, and this complexity makes them more vulnerable to different types of organisational conflict. One study stated that Libyan Cement Companies have suffered and are still suffering from the phenomenon of conflict either between individuals, groups, departments, or organisations and needed to be studied in depth. Therefore, this study aims to develop a framework for the causal factors of interpersonal conflict (IPC) in the Libyan Cement Industry (LCI), in order to improve the interpersonal conflict management in this industry, by providing recommendations to the LCI administration for their reduction.

The scope of the research lies in the field of social sciences; the reality (results) of the study is constructed differently by participants as they hold different beliefs, behaviours and attitudes. Consequently, interpretivism is the most appropriate research philosophy. The logic of this research is theory building rather than theory testing; therefore the study falls under inductive logic and adopts a qualitative approach.

The main research strategy is multiple embedded case studies of the two organisations of the Libyan Cement Industry. The findings were obtained from 48 semi-structured interviews that were conducted with the managers and the employees in different manufactories of the LCI, and then triangulation with other sources such as documentation and direct observation to enhance the validity and reliability of the research results. The data is analysed by using thematic analysis via coding the data, categorising the codes into themes and summarising the findings at various stages.

The results of the study show that IPC is at a high level in the LCI and the causal factors of this kind of conflict were found to be due to: individual differences
factors; behavioural factors; organisational factors; financial factors; and external environmental factors.

Through comparing the results of the field study with what is found in the literature of the factors causing IPC, some factors that cause IPC in the Libyan environment have not yet been mentioned in previous studies; such as: contradictions between the organisation’s policy and the state’s laws; mismanagement; and tribal fanaticism. These unique factors that appeared in the Libyan environment are represented as the main contributions to knowledge for the study.

In addition, the findings of this research strengthen the existing literature on IPC and its causal factors and reduce the gap in knowledge applying to Libyan studies, and will help the Libyan Cement Industry to manage IPC in an appropriate way. The findings would also be helpful for many managers, and could be used in many empirical studies on IPC and its management.

**Key words:** interpersonal conflict, organisational conflict, conflict management, the Libyan Cement Industry.
CHAPTER ONE
INTRODUCTION TO THE RESEARCH

1.0 Introduction

This research will identify the causal factors of interpersonal conflict (IPC) in the Libyan Cement Industry (LCI). The purpose of this introductory chapter is to establish the background to the research area, the aim, the objectives and underlying research questions, the rationale and the justification for the research, the expected contributions to knowledge that could emerge from the completion of the research, a brief indication of the research methodology, and the overall layout and structure of the thesis.

1.1 Research Motivation

The motivation for the current research grew from the following:

- The main motivation behind choosing to study this topic is due to the researcher’s interest in the subject of IPC and to the past experience of the researcher in the field of management and behavioural sciences.
- The challenges facing the cement industry around the world in general and in developing countries in particular including Libya (e.g. the remarkable changes in population, the funding of industrialisation and the fast-moving changes in developments in knowledge and technology).
- The Libyan Cement Industry would benefit greatly from identifying and understanding the issues that enable and affect conflict management in industrial enterprises in order to promote the effective management of such issues within these institutions.
- There is general agreement amongst Libyan companies in the cement industry on the importance of improving the quality of the services provided by the Libyan Cement Industry (GPC, 2008).
- A significant motivation for choosing this topic is to gain advanced knowledge in this discipline and to make a contribution to knowledge.
1.2 The Importance of the Study

There are a number of factors which make this study a valuable area to investigate. These factors are given below.

1.2.1 The importance of the concept

The importance of studying IPC and its factors originates from the importance of Managing Organisational Conflict (MOC) in any organisation and from the fact that conflict within any organisation is an inevitable and unavoidable occurrence which has a negative outcome on individuals and the organisation unless properly managed (Wood et al., 2010; Tjosvold, 2008; Almusdy, 2007). In addition, these conflicts within organisations take up a lot of managers’ time at all managerial levels (Wood et al., 2010; Luthans, 2008; Hellriegel and Slocum, 2007). This notion is supported by Hitt et al. (2006: 436) who state that:

“One survey showed that managers spend approximately 25% of their time dealing with conflict. In some fields (such as hospital administration and management of municipal organisations), managers can spend as much as 50% of their time managing conflict. Managers rate conflict management as equal to or higher in importance than planning, communication, motivation, and decision making” (Hitt et al., 2006).

Therefore, many authors argue that organisational conflict is an important topic to focus on, that its importance increases over time (Butler and Rose, 2011; Wood et al., 2010; Luthans, 2008) and that this may be due to the rise of globalisation and interdependence. The negative effects of conflict may prevent an organisation from achieving its goals, may waste time and effort, and can lead to a low quality of work (Hitt et al., 2006). Organisational conflict also has a negative impact on the motivation and productivity of employees (Ibid). The performance of an organisation must be properly managed in order to eliminate negative consequences and obtain positive results (Robbins, 2009; Langfred, 2007; Hellriegel and Slocum, 2004; Hellriegel et al., 1992). Conflict inside an organisation does not always have a negative effect; on the contrary, sometimes conflict has positive effects and these may lead to improved problem-solving or decision-making, to the stimulation of creativity and may increase productivity.
(Hellriegel and Slocum, 2004; Nelson and Quick, 1995; Steers and Black, 1994; Tjosvold, 1984). This positive aspect of conflict depends very much on how it is controlled and managed (Tjosvold 2008; 2006; Almusdy, 2007; Hatch, 2006; Adomi and Anie, 2006). (For further details see section 2.4.)

The identification of the factors which cause IPC is considered to be one of the most important subjects to be investigated within this topic because these factors are considered as important to know/understand in the process of conflict management (Wood et al., 2010; Al-Rajhi, 2008; Hitt et al., 2006; Rahim, 2002).

1.2.2 The importance of the cement industry in Libya

This study is within a sector that is one of the most important industries in the Libyan economy. The importance of this industry is due to the fact that it produces a product which is vital in producing concrete and construction materials for constructional development. It has been classified as the second largest consumed substance in the world after water (BCA, 2007). Cement plays a vital role in building modern civilisations; without it no school, house, road, hospital or bridge would be built. Therefore, this industry is one of the most important strategic industries in Libya after the oil and iron industries (United Nations, 2013; Hokoma et al., 2008). Currently, Libya is witnessing an increased demand for cement as a result of the extraordinary rise in the building sector, particularly after the Board of Housing and Infrastructure (BOHI) was established in 2006. The BOHI focuses on implementing and overseeing housing and infrastructure projects, renovating and regenerating neighbourhoods in under-developed areas, and developing cities and villages to suit the needs of modern civil life, etc. The new Libyan government has also recently unveiled an ambitious multi-billion dollar infrastructure development plan focused on the renovation and construction of airports, roads, housing, schools, hospitals and sanitation projects nationwide, as well as the Railway Project (GCR, 2013). The Railway Project is an ambitious 4,800 km trans-Africa rail network planned to link Tunisia and Egypt together with a southern network linking the Libyan cities of Sirte and Sebha and possibly extending to Chad and Niger (Ibid). In addition, the Libyan Cement Industry is important for the Libyan economy because it provides jobs for more than 5,680 workers in Libya.
1.2.3 The dearth of empirical studies
There is a lack of empirical studies on the factors causing IPC in countries around the world generally and in Arabic countries specifically (Al-Otaibi, 2006). Through an examination of the literature on IPC, it has been observed that most studies which deal with the factors causing IPC are mostly theoretical studies (see section 3.2 later in this thesis) and there has not been, until now, a study that addressed the factors causing IPC in Libyan organisations in general and in the Libyan Cement Industry in particular. Hence, this research is expected to add to knowledge and to shed more light in this area.

1.3 Background
This section presents information on three points: general information on Libya; information on the Libyan Cement Industry, and the research problem.

1.3.1 General information on Libya
Libya is an Arab state located in the centre of North Africa with a Mediterranean coastline of close to 2,000 kilometres (1,250 miles). It is bounded by the Mediterranean Sea to the north, Egypt to the east, Niger, Chad and Sudan to the south and Algeria and Tunisia to the west. Libya is the fourth largest country in Africa in terms of its size which is 1,759,540 square kilometres (United Nations, 2013), and is seven times the size of the United Kingdom. However, over 90 percent of the land is either desert or semi-desert. The Libyan Desert is part of the Great African Sahara.

According to the General Information Authority (2013), the population of Libya is 6,461,454 inhabitants with a growth rate 2.117% (this is according to the latest report). Most Libyan people are young - almost 50% are under 15 years old - and 86% are urban residents (Soliman, 2011). The religion in Libya is Islam and all Libyans are Sunni Muslims (United Nations, 2013) of the Malikite rite. This differs from many other Arab countries which have more than one religion and more than one rite (Attira and Al-Azzabi, 2004).

Oil is the main source of revenue providing approximately 90% of the country's income (Gasandoil, 2007). During the 1980s, oil accounted for two-thirds of the
national income and nearly 99% of export earnings. To reduce the country's heavy
dependence on oil recently Libyan economic policy has focused on the
development of other strategic industries such as cement, iron, steel and others
(freegek.com, 2013).

Libya can currently be considered as a “newborn” country, after experiencing ‘the
winds of the Arab Spring’, a revolutionary wave of political demonstrations and
protests occurring in the Arab world demanding the replacement of dictatorial
governments (many of which had stayed in authority for more than twenty years)
with elected governments by real elections (not fake elections). The Arab Spring
started on 18 December 2010 in Tunisia and then progressed to Egypt and then to
Libya.

Libya is now administered by the National Transitional Council (NTC) whose
priority is to set a constitution (a formal document defining the nature of a
constitutional settlement, the rules that govern the political system and the rights
of citizens and governments in a codified form) for Libya. Recently many Libyan
people are still waiting for a word to describe the legitimate government which
will come into being by the end of 2014 after genuine elections. The
determination of such a description is still awaited at the time of writing.

1.3.2 The Libyan Cement Industry
The Libyan Cement Industry (LCI) consists two main companies: The Ahlia
Cement Company (ACC) and the Libyan Cement Company (LCC). The Ahlia
Cement Company was established in 1965 as a public company under the name
"Cement and Construction Materials Company". In 1988 it was renamed as the
Arabian Cement Company. In 2005, it changed from the public sector to the
private sector as a share holding company under the name ‘Ahlia Cement
Company’. It has six plants: El-Mergeb (in Al-Komes); Suk-Elkamis (in Al-
Komes); Lebda (in Lebda); Zliten (in Zliten); Alklata (in Tripoli); and Alakyas-
Alwrakya (in Al-Komes). The number of employees in this company is
approximately 3071 (ACC, 2013).
The Libyan Cement Company was a public company under the name of the Libyan Cement Company (LCC). In 2006 it changed into a private company as a share holding company. The LCC started production in 1972 with one factory but now has four plants; the Benghazi plant produces 800,000 tonnes of cement a year. The Hawari plant, which was established in 1978, produces a total of 1,000,000 tonnes of cement per year. In 1987, there some adjustments were made to the Hawari plant’s production lines in order to produce sulphate-resistant cement which was suitable for the construction of the man-made river project (World Report, 2004). Both plants are located to the south of Benghazi city. The third plant is the El-Fatayah factory which was established in 1982 with two production lines that have a 1,000,000 tonne production capacity of ordinary Portland cement each year. This factory is located in Dherma city. The LCC also has a plant that produces bags for packaging the cement. This was established in 1975 in Benghazi city under the name of Alakyas. It produces 200,000 bags per day. The number of employees in this company is more than 2,609 (LCC, 2008).

1.3.3 Research Problem

The previous Libyan government had stated that the total production of the Libyan cement companies did not meet the demand of the local Libyan market (GPC, 2008). Moreover, Elferjany (2004) argues that Libyan cement companies have suffered, and are still suffering, from the phenomenon of conflict either between individuals or between groups, departments and organisations. This concept is supported by Alfaitori (2004) who suggests that the factors causing all types of organisational conflict need to be studied in-depth in the Libyan cement industry.

Libyan cement companies have consistently faced many problems, such as managerial, technical and financial problems, which have led to low productivity (Binsaoud, 2002; IGB, 2001). Based on the perceived relationship between productivity and organisational conflict (OC) (where IPC is one type of OC), IPC may be one of the managerial problems causing low productivity. This study focuses on studying the factors that cause interpersonal conflict (IPC) in the Libyan Cement Industry and will not address the factors that cause other types of OC (the justification for this choice is in the next section).
In addition, by reviewing the literature on IPC and OC, it has been found that there is no study as yet that has addressed the factors of IPC in any Libyan organisations. Thus, this research gap (research problem) has been identified as there is no known existence of any research undertaken on the factors causing IPC in the Libyan environment.

1.4 Justifications for Choosing to Study IPC

The researcher chose to study IPC (conflict which occurs between two or more individuals in organisations) instead of other OC for the following reasons:

- Individuals are the main element in any organisation and without them organisations cannot exist.
- Many authors have confirmed that IPC is a major form of conflict that managers have to deal with, given the highly interpersonal nature of the managerial role (Wood et al., 2010; Rollinson, 2005).
- IPC is a serious problem for many people because it deeply affects a person’s emotions (Liu et al., 2010; Newstrom, 2007).
- IPC can spread rapidly among employees and its negative outcomes have a strong influence on parties if it is not controlled (Wood et al., 2010; Altira, 2008; Rollinson, 2005).
- IPC involves a relationship in which a sequence of conditions and events can move toward aggressive behaviour and disorder if not properly managed (Adomi and Anie, 2006).

Because of these aspects, this research will focus on studying the causal factors of IPC and will use the Libyan cement industry as the case study.

1.5 Research Outline

This section will present the research aims, questions and the objectives of the study.

1.5.1 Research Aim

This study aims to develop a framework for the causal factors of interpersonal conflict (IPC) in the Libyan Cement Industry, in order to improve the interpersonal conflict management in this industry, through providing
recommendations to the LCI administration for reduction of the causal factors of IPC.

1.5.2 Research Questions
According to the research aim and the nature of the subject of the study which needs to identify the level of conflict first; then to identify the causal factors of IPC based on the modern theory of conflict which has been adopted by the study. Therefore, the research questions have been formulated as follows:

- What is the level of IPC in the Libyan cement industry?
- Why does IPC exist in the Libyan cement industry?

1.5.3 Research Objectives
To meet the central aim of the study and to answer the research questions specific objectives have been formulated as following:

- To review the relevant literature on the concept of IPC to create a theoretical framework to the causal factors of IPC;
- To identify the level of IPC in the Libyan cement industry;
- To create a validated framework to the factors that cause IPC in the cement industry in Libya;
- To provide an explanation of these critical factors and their sources in order to provide recommendations to the administration of the cement industry in Libya for their reduction.

1.6 Research Methodology
Research methodology is the systematic way a researcher to deals with a subject using appropriate methods to collect and analyse data to answer research questions and to achieve the aim and objectives of the research. Research methodology involves: the research philosophy, the reasoning of the research, the research approach or method, the research strategy, the unit/units of analysis and data analysis (Saunders et al., 2012).
In the literature on research methodology, there are two main philosophies: positivism and interpretivism and each of them is formed from five philosophical assumptions which are: ontological, epistemological, axiological, methodological and rhetorical assumptions (Collis and Hussey, 2009). Details on all these assumptions are presented in chapter five. However, the most appropriate research philosophy for this work is interpretivism because the reality (the findings) of the study is constructed differently by the participants as they hold different beliefs, behaviours and attitudes.

There are two general approaches to the reasoning of research in the literature, namely inductive and deductive reasoning. Inductive reasoning is theory building and goes from the specific to the general whilst deductive reasoning is theory testing and goes from the general to the specific. The nature of this study is theory building rather than theory testing therefore the reasoning of this research is mainly inductive logic.

The positivism and interpretivism philosophies are represented by two main types of research approaches or methods in social science, namely quantitative and qualitative (Easterby-Smith et al., 2008). This research focuses on meaning rather than on numbers and the philosophy of the study is interpretivism. Hence, a qualitative method for collecting the data is the most suitable approach to be used in this study.

The case study strategy has been adopted because this study focuses on answering ‘why’ questions and there is no control over behavioural events; also the study focuses on contemporary events.

A case study can be conducted in one organisation (a single case study) or in more than one organisation (multiple case studies). The LCI involves two companies and both of them have been examined and thus are multiple case studies in the ongoing research.
One of the most important elements of the research design is defining distinctly the unit of analysis (Yin, 2009). The multiple case study strategy has two types of design; holistic or multiple (embedded) case studies. Multiple holistic case studies involve a single unit of analysis while multiple embedded case studies involve multiple units of analysis (Ibid). In this study, multiple units of analysis (all managerial levels and ordinary employees) have been selected according to the research aim and questions.

The data were collected from 48 semi-structured interviews and triangulated with other sources such as documentation and direct observation to enhance the validity and reliability of the research results. The data was analysed by using a thematic analysis approach that involves a general analytical procedure which is recommended for those who not familiar with analysing qualitative research.

1.7 The Research Journey

Figure 1.1 shows the research process or journey. The study was carried out in four stages as follows:

**Stage 1:** The research commenced by developing the research aim, questions and objectives. A review of the relevant literature was carried out to understand the factors that cause IPC from a theoretical perspective. Then the causal factors were developed into a framework in order to understand them and compare them with the factors that appeared in the field study. The literature helped the researcher to identify the research gap and the suitable research methodology for this study and to justify why the topic was chosen. Next, the interview questions were designed based on the research aim, objectives and on the experience of the researcher.

**Stage 2:** In order to validate the interview guidelines a number of pilot studies were conducted. The actual study was conducted within the Libyan Cement Industry (LCI) and the data were collected via multiple sources such as 48 semi-structured interviews, direct observation and documentation.
Figure 1.1: Research Journey

Stage 1

Developing Research questions, aim and objectives

Stage 2

Literature Review
- Identify the factors that cause IPC
- Identifying the research methodology
- Designing interview guideline

Stage 3

The field study
It was conducted in the LCI and the data was collected via:

Semi-structured interviews

Direct observation & documentation

Stage 4

Analysis and discussion
The data was analysed using a general approach for analysing qualitative data

Conclusion
Contributions to knowledge and Recommendations
**Stage 3:** This stage focused on analysing the qualitative data by using a general analytical procedure which is an appropriate technique for research data. Then the findings were linked with the literature to enhance the validity of the study.

**Stage 4:** In this the conclusions and the recommendations of the study were developed.

**1.8 Expected Contribution to Knowledge**

This is the first empirical study that identifies and addresses the factors causing interpersonal conflict in the cement industry that has been carried out in a Libyan context and also the first such study (to the researcher’s knowledge) carried out in an Arabic country. Thus, this study has attempted to narrow the gap in knowledge within the cement industry sector by providing an empirical understanding of this phenomenon within this environment.

One main contribution to knowledge that is expected to be found in this study is the identification of factors causing interpersonal conflict within the Libyan cement industry which would thus contribute to original knowledge in the field of IPC in the cement industry and would narrow the gap in information in this field. It is expected that such factors will not have been mentioned before in the literature.

The critical analysis of the research findings will identify issues that will assist in the improvement and development of the cement companies in Libya as well as leading to the potential identification of issues that could improve the cement industry in Libya. The completion of this research will aid the Libyan government in identifying the changes that are necessary in the industrial sector in general in order to upgrade towards achieving international standards.

**1.9 Exclusions, Constraints, Reservations and Limitations**

The research was conducted to only investigate the causal factors of interpersonal conflict. The other types of organisational conflict were excluded from this research. This was because IPC is considered to be a major type of conflict plus it can extend rapidly. Furthermore, this type of conflict is associated with
individuals who are considered to be the most important element within organisations and organisations could not operate unless they are present. Other types of organisational conflict have the potential to be a PhD study in their own right; thus they were excluded from this study.

The inability to tape record interviews in this study due to cultural constraints is regarded as a limitation since this may have led to essential information being missed and thus there being less focus on the interviews (because taking notes within the interview). In order to overcome this constraint the researcher, as recommended by Yin (2009), tried to write as much information as possible during the interview and then, on the same day after each interview, allowed herself time to transcribe all the pieces of information and ideas presented by the participant and convert them into a written record while they were still easy to recall. These records were then confirmed by the interviewee.

All the interviews and fieldwork took place before the Arab Spring which started in Libya on 17 February 2011. These issues are returned to in chapter four.

1.10 The Thesis Structure
The thesis is divided into seven chapters and each chapter has an introduction and summary.

Chapter 1: Introduction
This presents the initial focus of the study by introducing the background to the research and the general nature and purpose of the study. It also includes the justification for the research, the research aims, questions and objectives.

Chapter 2: Organisational Conflict and Its Types
Chapter two contains a discussion on the literature review of the background information available on organisational conflict (OC) and its nature; the development of organisational conflict theory in managerial thought; phases of organisational conflict, and on types of OC comprising positive conflict, negative
conflict, horizontal conflict, vertical conflict, intrapersonal conflict, interpersonal conflict, intergroup conflict and inter-organisational conflict.

**Chapter 3: Developing the Theoretical Framework for IPC**

In this chapter the key research issue is identified. There is further elucidation and clarification of the diverse terminologies and issues surrounding the main research topic. These assist in developing a theoretical understanding of the phenomena being studied. Past and present academic points of view on the topic are reviewed and counter arguments are explored. Three broad topics are then discussed in this chapter, namely the nature of interpersonal conflict, the causal factors of IPC and managing interpersonal conflict.

**Chapter 4: The Libyan Context**

This chapter presents an overview of the Libyan environment and the Libyan cement industry, providing the contextual background on the geographical, economic and political factors that influence the cement sector in Libya.

**Chapter 5: Research Methodology**

The methodological steps used to guide the research process are discussed in detail in this chapter. The methodology that is used is justified, and the choice of the appropriate research philosophy, approach, data collection and analysis techniques are described in detail as well as an evaluation of the potential validity and credibility of the research findings.

**Chapter 6: Research Findings and Discussion**

This chapter presents the findings from the analysis of the qualitative data of each case separately. This chapter also presents a discussion of the similarities in, and the differences amongst, the findings of each case, and the findings from both cases have been combined. Additionally, they are linked to the undertaken literature review to determine if the research findings are similar, or in contrast, to the findings found in the literature, and to determine if they support or validate the new findings of the study.
Chapter 7: Conclusions and Recommendations

In this chapter, the conclusions and how the research aim and objectives have been achieved are discussed. Recommendations for future work and the limitations of the thesis are presented.

1.11 Chapter Summary

This introductory chapter has offered an insight into the research study and has highlighted the reason why this study is valuable for the Libyan cement industry and hence why it should be conducted. It has considered the aim, research questions and the objectives to be achieved. The expected contributions to knowledge have been identified and an indication of the methodology to be adopted has been provided. The research process (journey) has been defined. Finally an outline of the structure of the thesis has been identified.
CHAPTER TWO
ORGANISATIONAL CONFLICT AND ITS TYPES

2.0 Introduction
In the previous chapter, the introduction and the general outline of the research were presented. In this chapter and the next chapter, the literature review undertaken of organisational conflict (OC) and interpersonal conflict (IPC), and the relevant subjects covering the causal factors of IPC, will be addressed in more detail.

This chapter will present the nature of OC in organisations and its importance, in addition to displaying different organisational conflict theories, namely the traditional theory, the theory of human relations, and the modern theory of conflict. Then, phases of OC and outcomes of OC will be addressed in addition to providing an overview of the types of OC (positive conflict, negative conflict, horizontal conflict, vertical conflict, intrapersonal conflict, interpersonal conflict, intergroup conflict and inter-organisational conflict) as a broad base for this research. The next chapter will then focus on one type of OC which is interpersonal conflict (IPC) which is the main subject of this inquiry.

2.1 Organisational conflict (OC) and its nature
Management writers used many terms to indicate conflict such as dispute, disagreement, clash, contradiction, and so on. In fact, many people, when they hear the word conflict, usually think of the conditions of war and fighting. However, it can be argued that these situations are very advanced cases which have been neglected and not addressed correctly. This concept is supported by Adomi and Anie (2006).

In the literature on organisational conflict (OC), there are many definitions for OC and most of them revolve around the idea of the incompatibility of interests or activities. Hempel et al. (2009: 43) define conflict as “incompatible activities where one person’s actions are interfering or obstructing another’s”. Greenberg
and Baron (2008: 440) define OC as “a process in which one party perceives that another party has taken or will take actions that are incompatible with one’s own interests”. Likewise, Slocum and Hellriegel (2007: 248) and Hellriegel and Slocum (2011: 384) refer to OC as “a process in which one party (person or group) perceives that its interests are being opposed or negatively affected by another party”. Similarly, Hitt et al. (2006: 435) define OC as “a process in which one party perceives that its interests are being opposed or negatively affected by another party”. Also, Abdolmotalleb (2003: 47) argues that “conflict is the perception of differences of interests among people”. These definitions imply incompatible concerns among individuals or groups and include a variety of conflict types. Conflict specialists confirm that conflict is inevitable and unavoidable in all organisations regardless of type or size (Wood et al., 2010; Tjosvold, 2008; Almusdy, 2007; Hatch, 1997) because it is associated with the nature of human beings and their interests.

As can be seen there is mostly widespread agreement on the definition of OC (it is a case of incompatibility of interests) by recent management and organisational behaviour authors. This work uses the definition of Al-Nimer (1994: 48) that “OC is a psychological and physical reaction which emanates from the individual as a result of internal or external situations related to the environment that cannot be controlled or adapted”. This definition takes conflict from a holistic perspective not from a partial perspective. It takes into account the effect of the external and internal environment on the individual and the organisation.

Organisational conflict has general characteristics. They can be summarized as follows:

- Confictual situations usually consist of two or more parties;
- Conflict does not occur suddenly. It occurs as a result of some factors which need to be identified;
- There is incompatibility and tension between conflict parties;
- Conflict parties have an awareness and understanding of other parties;
• Conflict parties have the ability to harm each other and each party aims to impede the goals of the other party;
• The outcomes of conflict remain unknown to every party until the end of the conflict.

2.2 The development of the organisational conflict theories in the managerial thought

Theoretical studies have differed on the stages of development undergone by the conflict theories in managerial thought. It has been identified in three stages (Robbins and Judge, 2008; Al-Rajhi, 2008; Mullins, 2007; Al-Otaibi, 2006): the traditional theory of conflict; the theory of human relations of the conflict; and the modern theory of conflict. Table 2.1 summarises the stages of development of organisational conflict theory in managerial thought.

Table 2.1: The stages of organisational conflict theory in managerial thought
(Source: the idea is adapted from Al-Otaibi, 2006; AbdIwahab, 1998)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Traditional theory of conflict</th>
<th>Theory of human relations of the conflict</th>
<th>Modern theory of conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of conflict</td>
<td>Undesirable</td>
<td>Inevitable and unavoidable</td>
<td>Natural and necessary for the purpose of development and innovation</td>
</tr>
<tr>
<td>Feature of conflict</td>
<td>Destruction</td>
<td>Competition</td>
<td>Development</td>
</tr>
<tr>
<td>Parties involved in conflict</td>
<td>Trouble-makers</td>
<td>Everyone</td>
<td>Everyone</td>
</tr>
<tr>
<td>Consequences of conflict</td>
<td>Harmful: its consequences are always harmful</td>
<td>Harmful/beneficial: often harmful consequences, and thus a positive outcome relies on the concept of conflict resolution</td>
<td>Beneficial/harmful: often beneficial consequences if managed correctly</td>
</tr>
<tr>
<td>Reaction of administration</td>
<td>Rejection</td>
<td>Acceptance</td>
<td>Encouragement sometimes</td>
</tr>
<tr>
<td>How administrations confront conflict</td>
<td>Suppression of conflict</td>
<td>Conflict resolution</td>
<td>Managing conflict</td>
</tr>
</tbody>
</table>
However, some have considered that the theory of human relations of the conflict is an extension of the modern theory of conflict and is a part of it. Therefore, they believe that there are only two stages of organisational conflict development (Rollinson 2005; Swailem, 2000), namely the traditional theory and the modern theory of conflict. In this study, the differences between these theories of organisational conflict will be illustrated.

2.2.1 The traditional school of thought on conflict
This phase lasted until the nineteen-forties of the twentieth century (Al-Rajhi, 2008). The adopters of this school of thought believed that conflict in the workplace is an unwelcome behaviour and must be suppressed and eliminated by any means possible, even if by force, as soon as it appears (Gadalrab, 2005). In addition, they considered that the presence of conflict in an organisation is evidence of a defect in the organisational structure as well as reflecting on the administration's failure to confront conflict (Al-Rajhi, 2008).

This theory includes an inverse relationship between the level of organisational conflict and organisational performance. Based on the beliefs of the traditional school of thought, figure 2.1 illustrates that organisational performance increases in the case of low level conflict while it decreases in the case of a high level of conflict.

There are some assumptions in this theory which can be summarized in the following points:

- Conflict is harmful to organisations and can be avoided (Altira, 2008);
- Management eliminates conflict by suppressing it through various ways; the most important way is by the force of official authority (Ibid);
- Conflict is usually caused by trouble-making members of staff (Elmagri, 2002);
- Organisational conflict causes negative reactions (Ibid).

It seems clear that the traditional school of conflict philosophy provides an easy entry into dealing with organisational conflict. It also features simplicity in the understanding of organisational behaviour as well as in the understanding of the
middles of conflicting individuals and groups particularly, in light of recent developments in the fields of management science and organisational behavioural science. This theory does not provide radical solutions to the phenomenon of organisational conflict. Therefore, the traditional school of thought on conflict philosophy has not been successful in the long term because conflict will inevitably remain stagnant until it is provided with an adequate opportunity to appear again.

Figure 2.1: The level of OC and organisational performance in the traditional school of thought on conflict (Source: adapted from Gray and Starke, 1988: p. 93)

Despite the shortcoming that characterizes the traditional school of thought on conflict in dealing with conflict, this way of thinking is still prevalent in many organisations (Al-Rajhi, 2008). Firstly, this may be due to the fact that the concept of conflict is usually linked to its negative effects whereby, usually, the first thing that comes into one’s mind when one hears the word ‘conflict’ is the state of chaos, fighting and instability (Huczynski and Buchanan, 2007). Therefore, a
majority of organisations’ leaders prefer their organisations to be conflict-free. Secondly, it may also be due to the values and social factors which affect, managers in preferring to avoid conflicts (Mohammad, 1997).

2.2.2 The theory of human relations of the conflict

The school of thought which upholds the theory of human relations of the conflict prevailed from the nineteen-fifties and continued to prevail until the end of the nineteen-sixties (Al-Rajhi, 2008). Supporters of this school of thought recognised the existence of conflicts within organisations are caused by social entities that depend on the interactions of working individuals and, therefore, on the fact that individuals often agree on some positions and disagree in other situations. This philosophy considers conflict as inevitable and unavoidable within any social entity and that the managers of organisations have to only monitor it in order to be able to live with it. However, if such conflict exceeds what is desirable or acceptable then rapid intervention by administrators is called upon for the purpose of resolving it (Elmagri, 2002). The theory of human relations of the conflict also criticised the traditional theory in its belief in conflict-suppression, as the human relations’ theory supporters believe that conflict, within any social entity, cannot be permanently eliminated (Altira, 2008).

The assumptions made by the theory of human relations of the conflict can be summarised as follows:

- Conflict is something natural and inevitable and cannot be permanently eliminated (Al-Otaibi, 2006);
- Administrations should monitor prevailing conflict in an organisation and should not interfere as long as the level can be accommodated (Altira, 2008);
- Administrations should adopt the concept of conflict resolution as the concept for organisational conflict management (Mohammad, 1997);
- The results of conflict are predominantly negative (Al-Otaibi, 2006).

The most prominent addition made by the human relations’ theory, when compared against the preceding traditional theory, is the recognition of the existence of conflict. It considers that conflict within an organisation is natural
and inevitable but that it needs to be controlled and that management should handle it in a timely manner.

2.2.3 The modern theory of conflict

The adoption of the modern theory of conflict began in the nineteen-seventies (Al-Rajhi, 2008). If the theory of human relations recognizes the existence of conflict, the modern theory goes beyond the mere recognition of it as inevitable and natural in organisations. The modern theory considers conflict as desirable and a phenomenon that must be stimulated if it reaches low or very low levels in order to raise the vitality of individuals and groups and thus to increase their innovation and self-criticism (Robbins and Judge, 2008). This should then be positively reflected by the performance of the organisation (Hatch, 2006). Also, supporters of the modern theory of conflict believe that the presence of cases of conflict among individuals or groups within an organisation does not necessarily mean there are organisational defects nor is it considered a proof of the management’s failure (Altira, 2008; Mohammad, 1997).

In reality, not all kinds of conflict are useful (the supporters of the modern theory of conflict believe that organisational conflict can be constructive, i.e. has positive consequences). Conflict may be destructive and have negative results which reflect on organisational performance (Mullins, 2007). The outcomes caused by conflicts depend largely on how it is managed (Wood et al., 2010).

The managerial thought expressed in the modern conflict theory has its own view of organisational conflict which can be summarized by the following assumptions:

- The existence of an appropriate level of organisational conflict in organisations is natural and necessary because it is a reflection of the change and development which organisations go through (Mouasher, 2005);
- Positive or negative results may appear because of organisational conflict and how it is managed. (Wood et al., 2010);
- The principle of conflict reduction may be appropriate in organisations which deal with crises such as in the armed forces or in organisations that have a routine work style, such as in some industrial companies
(Mohammad, 1997). However, this principle may not be appropriate for organisations producing technology and knowledge (Ibid);

- There is no danger in the phenomenon of conflict in itself, possible danger lies in the mismanagement of it (Robbins and Judge, 2008).

The process of managing organisational conflict according to the modern theory of conflict will be elaborated upon in detail later, but it can be briefly described as follows. Conflict management involves two main stages (Rahim, 2001): firstly, conflict diagnosis which determines an acceptable level of conflict. At this level organisational performance can reach its highest level (this is according to the goals of the organisation and according to the conditions of the internal and external environment of the organisation that affect, and are affected by, the organisation). Secondly, there is the stage of conflict-handling, in which the treatment of conflict is divided into three levels according to the level of conflict. If conflict goes beyond the acceptable level specified in advance, managers need to resolve the conflict by finding out the causal factors in order to reduce them (in this context, there are several ways to undertake this and this will be presented later). In the case where the level of conflict decreases to low or very low levels (i.e. below the desirable level) then it can be treated by stimulating it in order to achieve balance within the organisation and to prevent stagnation and monotony. In the cases where conflict is at an acceptable level, managers can leave it alone (Huczynski and Buchanan, 2007) but they still need to monitor the situation (Elmagri, 2002).

Perhaps one of the most important changes brought about by the modern school of thought in the theory of organisational conflict is the use of the concept of "conflict management" which replaces the concept of "conflict resolution" as adopted by the school of thought of human relations. Organisational conflict management, as a process, is broader and more comprehensive than the process of conflict resolution as the latter is part of the process of organisational conflict management as explained above. The phrase ‘conflict management’ reflects the recognition that organisational conflict has positive consequences (if it is well-managed) and also has disadvantages (if it is neglected).
Figure 2.2 shows the relationship between the levels of organisational conflict and organisational performance in the modern school thought. According to the modern theory of conflict there are three levels of organisational conflict: low level (a), average level (appropriate or optimal) (b), and high level (c).

Case A in figure 2.2 represents a low level of organisational conflict which is named by Abdolmotalleb, (2003) as "collective agreement" where objections to any decisions taken by a certain workgroup are unlikely and additionally individuals do not want to provide new ideas and proposals (Hatch, 1997) so as not to oppose the ideas of the group. The group does not listen to any criticism or dissent; they simply ignore any information that does not support their views. Also, the group do not pay attention to the opinions of experts who are outside their group and they devote little of their time to discussing different views (Abdolmotalleb, 2003). Therefore, this scenario leads to low-quality decisions where all the alternatives available are not taken into account. Wood et al. (2010)
confirm that, at this low level of conflict, an organisation is expected to produce low level performance. In addition, Huczynski and Buchanan (2007) summarise the effects of a low level of conflict as: carelessness, stagnation, weak motivation, a lack of change and development, a lack of new ideas, and a lack in productivity.

Case B signifies the situation which some authors called “constructive conflict” or “healthy conflict” where the level of conflict is at an acceptable level (Wood et al., 2010; Brooks, 2009) and the level of an organisation’s performance reaches the optimal level (Hatch, 1997; Huczynski and Buchanan 2007). Supporters of the modern theory of conflict believe that in order to achieve the best performance for an organisation, it needs to promote some conflict (Robbins and Judge, 2008) so that it reaches an average level which can be defined as appropriate for the organisation according to its internal and external circumstances and the goals that it seeks to achieve. Huczynski and Buchanan (2007) summarize the positive effects of conflict at this level in: the cohesion of the group, the high quality of productivity, self-criticism, and in innovation and change.

Case C in figure 2.2 represents the case where the level of conflict reaches a high level. Some authors call this case “destructive conflict” or “unhealthy conflict” whereby the negative consequences of conflict for both individuals and groups appears within the organisation and within the low morale of workers and absenteeism and resignations increase (Abdolmotalleb, 2003). Huczynski and Buchanan (2007) summarise the negative results for this stage as: chaos, vandalism, lack of cooperation and aggressive behaviour by some individuals.

Despite these developments in organisational conflict theory, there are a large number of managers and authors who still view conflict in organisations as an unwanted behaviour and thus they prefer to avoid it and do not recognize its existence as long as it does not appear on the surface, and if it appears they eliminate it by any means available because they still perceive organisational conflict by the perspective of the traditional school of thought (Al-Rajhi, 2008). This idea is supported by Jaffar et al. (2011) who deem that many construction stakeholders still overwhelmingly view conflict as negative and as something to
be avoided or to be resolved as soon as possible because conflict and disputes are undesirable in the construction industry. This is considered by such people to be especially the case because many construction organisations face many uncertainties.

This study adopts the modern concept of organisational conflict and is working towards proposing practical solutions to interpersonal conflict in the Libyan Cement Industry by identifying the causal factors of IPC in this environment.

2.3 Phases of organisational conflict

Organisational conflict can be better understood if it is seen as a dynamic process. Figure 2.3 summarises the phases of organisational conflict. Altira (2008) and Elferjany (2004) point that the organisational conflict usually passes through five stages which are listed below.

Figure 2.3: Phases of organisational conflict (Adopted and Modified from Gordon, 2002)
First: Latent Conflict: at this stage the conditions are ripe for the occurrence of conflict. Individuals or groups have the power of unbalanced or limited resources or have different goals or different experiences. These differences become the fuel of the conflict.

Second: Perceptible Conflict: at this stage individuals and members of groups feel the existence of a dispute or conflict; they are aware of past differences and solutions are proposed in accordance with previous experiments undertaken to prevent the exacerbation of the conflict (Elferjany, 2004). This stage is critical because it shows the extent to which the parties can agree or not upon a solution. Jawad (2000) believes that conflict can be overcome at this stage by communication to eliminate any misunderstandings before they get worse.

Third: Sensible Conflict: at this stage the existence of actual conflict is recognized. There is a difference between perceptible conflict and sensible conflict in that an individual in perceptible conflict can notice that there is a dispute but this does not necessarily lead to anxiety and tension. However, the sensible conflict stage arouses passionate emotive feelings amongst the parties to the conflict such as anxiety, stress or anger. Generally, sensing a conflict and turning it into a personal issue is the source of negative and unwanted consequences in an organisation (Altira, 2008).

Fourth: Apparent Conflict: in this stage the conflicting parties show a variety of conflict behaviours that appear in the form of competition or discussion or negotiation. Also, conflict may also appear in the form of aggression and as physical or verbal violence, or in the form of withdrawal or sabotage;

Fifth: Post-Apparent Conflict: in this stage the conflicting parties search for the roots of the problem and work to resolve it. If the results of the conflict management are satisfactory for all parties, an atmosphere of collaboration amongst the parties is expected to prevail. However, if the administration chooses to suppress the conflict (the traditional view towards conflict), this method will only lead to a temporary disappearance of the conflict and it will emerge again but
this time it will have greater intensity and may end up in breaking the relationship(s) between the parties (Askar, 1983).

From the above it can be noted that the conflict in organisations does not appear suddenly but that it passes through phases. Thus this leads to a requirement to identify it in its early stages so that it can be controlled and managed properly, (even if it is difficult to identify conflict in its early stages) (Rahim, 2002; Said and Abdelwahab, 1994). There are indications through which managers can recognize some of the signs of conflict and tension and these can be summarised as follows (McClure, 2010; Elferjany, 2004):

- Uncertainty amongst workers on various issues in the organisation and the inability to identify trends as a result of a lack of a clear organisational structure that is relatively stable. (Said and Abdelwahab, 1994);
- A high percentage in absenteeism amongst workers;
- A high ratio of worker turnover;
- Domination of a spirit of opposition to most issues;
- The withdrawal by the principal individuals in an organisation from dealings and communications; the so-called "vocational discord" (Ibid).

2.4 Outcomes of Organisational Conflict
Conflict within organisations has two sides: positive and negative (see table 2.2). The positive side comprises the positive outcomes or positive effects of conflict and some authors called it “constructive conflict” (Schermérmorhon et al., 2008; Mullins, 2007; Nelson and Quick, 2006) or “functional conflict” (McClure, 2010; Kreitner and Kinicki, 2008; Schermérmorhon et al., 2008). On the positive side, OC can bring important problems to the surface in order that they can be addressed (Nelson and Quick, 2006). It can cause decisions to be considered carefully, and perhaps reconsidered, to ensure that the right form of action is being followed (Ibid). OC can increase the amount of information used for decision-making (Hatch, 2006). Furthermore, OC can offer opportunities for creativity that can improve individual, team, and organisational performance. Functional conflict can lead to innovation and positive change for an organisation (Cosier and Dalton, 1990) because it tends to encourage creativity among individuals (Nelson and
Quick, 2006; 1995). This positive form of conflict can translate into increased productivity (Tjosvold, 2008; 1984; Hellrigel & Slocum, 2004).

Table 2.2: Conflict outcomes (Source: Nelson and Quick, 1995)

<table>
<thead>
<tr>
<th>Positive effect</th>
<th>Negative effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leads to new ideas</td>
<td>Diverts synergy from work</td>
</tr>
<tr>
<td>Stimulates creativity</td>
<td>Threatens psychological well-being</td>
</tr>
<tr>
<td>Motivates changes</td>
<td>Wastes resources</td>
</tr>
<tr>
<td>Promotes organisational vitality</td>
<td>Creates a negative climate</td>
</tr>
<tr>
<td>Helps individuals and groups establish identities</td>
<td>Breaks down group cohesion</td>
</tr>
<tr>
<td>Serves as a safety value to indicate problems</td>
<td>Can increase hostility and aggressive behaviours</td>
</tr>
</tbody>
</table>

Many management authors (Wood et al., 2010; Robbins, 2009; Langfred, 2007; Adomi and Anie, 2006; Rollinson, 2005) recommend that organisational conflict needs to be managed correctly in order to reduce its negative outcomes and obtain its positive outcomes.

On the negative side, OC comprises the negative outcomes or negative effects of conflict and some authors call it “destructive conflict” (Nelson and Quick, 2006; Schermerhorn et al., 2005) or “dysfunctional conflict” (McClure, 2010; Schermerhorn et al., 2008). Schermerhorn et al. (2008) argue that dysfunctional conflict wasted energies, weakens group cohesion, increases interpersonal conflicts between employees and, overall, creates a bad environment for workers; that it can decrease job satisfaction and work productivity and increase absenteeism and a higher than average turnover in jobs. In addition, dysfunctional conflict can lead to a lack of creativity, to work life becoming routinely, as a consequence, it becomes difficult to inspire staff to think and performance differently and to take the organisation forward (Brooks, 2009).
Mullins (2007) lists a number of both positive and negative outcomes of conflict. The positive ones include: creating new ideas, clarify the individuals’ views, people being pushed to search for new approaches, stimulating the creation and people’s interest, bring chronic problems to surface to resolved, and chances for employees to test their capacities. On other hand, the negative outcomes include: increase the distance between individuals, increase of distrust and suspicion between individuals, some people feeling humiliated and compelled, the individuals and groups focuses on their own interests in short run, lack of teamwork and increase in employee turnover.

Outcomes from the analysis of conflict literature will help in discussion the research findings later (see chapter six).

2.5 Types of Organisational Conflict

In managerial literature there are many classifications for the types of organisational conflict (Luthans, 2008; Al-Rajihi, 2008; Maher, 2004) including:

- Organisational conflict by its parties;
- Organisational conflict by its directions;
- Organisational conflict by its results.

These types of organisational conflict are addressed in detail in the following sections.

2.6 Organisational Conflict by its Parties

A number of authors such as Wood et al. (2010) and Luthans (2008) distinguish between four major types of conflict according to the nature of its parties, namely:

- Intrapersonal conflict;
- Interpersonal conflict;
- Intergroup conflict;
- Inter-organisational conflict.

Some authors, such as Hempel et al. (2009) and Abdolmotalleb (2003), name the first three conflicts (intrapersonal conflict, interpersonal conflict and intergroup conflict) as internal conflict, while the fourth conflict (inter-organisational
conflict) is seen as external conflict. In the next paragraphs, the distinctions between each type will be discussed in some detail.

2.6.1 Intrapersonal conflict
This kind of conflict occurs internally within an individual because of frustration or incompatible goals (Wood et al., 2010; Schermerhorn et al., 2008). It includes the following:

*Intrapersonal conflict as a result of frustration:*
An individual encounters frustration when a certain obstacle stands in the way of him/her achieving his/her goal, thereby creating what is called frustration (Luthans, 2008). This, in turn, may create a kind of defensive reaction such as justification, withdrawal, aggressive behaviour, inertia or the acceptance of a compromise or an alternative (Elmagri, 2002). The negative consequences of frustration affect the morale of individuals and their satisfaction with the work (Luthans, 2008). However, frustration can also have positive results such as continuous and hard work to reach a goal and thus to improve the performance and productivity of the individual; however, this all depends on the individual's personality.

*Intrapersonal conflict as a result of the individual’s incompatible goals:*
This type of conflict relates to the goals of an individual. Therefore, it can be distinguished here between frustration and clashing or incompatible goals. In the case of frustration, an individual seeks to achieve a particular goal but there is an obstacle or obstacles that impedes this achievement. In the case of incompatible goals, an individual has two or more goals that clash with each other. An individual can be faced with three types of incompatible goals (Luthans, 2008; Maher, 2004):

- Positive conflicting goals: In this scenario there are two or more positive goals. However, achieving one goal prevents the achievement of others. An example is the presence of more than one job opportunity for an individual and thus the individual finds themselves in the position of having to make a choice;
• Negative conflicting goals: Here the individual is faced with two or more goals; all of them are negative and the individual must choose one of them. Usually in this case, the individual chooses the least harmful goal;

• Conflict between achieving and not achieving the goal: This type of conflict takes place when an individual has one goal and, at the same time, achieving this goal leads to both negative results and positive ones. Here, the individual is in a state of confusion as to whether or not to achieve this goal. Maher (2004) states that, in this case, the culture of the individual and his/her education and experience play a large role in his/her decision.

Nelson and Quick (2006) argue that intrapersonal conflict can be managed by careful self-analysis and diagnosis of the situation. As stated in chapter one, this intrapersonal conflict is excluded from further research in this study except where it influences IPC as presented below.

2.6.2 Interpersonal conflict (IPC)

This conflict happens between two or more individuals in an organisation as a result of dealings and interactions with each other (Luthans, 2008). It may be a visible or invisible form of conflict and it ranges between peaceful opposition and the use of force and violence (Altira, 2008). IPC is most common and prevalent among all types of OC (Altira, 2008; Al-Nimr, 1994) and its negative effects will have a stronger outcome than the positive effects unless it is managed properly (Altira, 2008; Adomi and Anie, 2006). IPC is a serious problem for many people because it deeply affects a person's emotions (Liu et al., 2010; Newstrom, 2007; Davis and Newstrom, 2002). It spreads rapidly among individuals (Wood et al., 2010; Rollinson, 2005; Al-Nimr, 1994). Therefore, this study has chosen to study the causal factors of this type of OC.

The next chapter is devoted to a discussion of, and developing a theoretical framework for, the causal factors of IPC.

2.6.3 Intergroup conflict

Some scholars believe that this type of conflict may appear in several domains including:
• Conflict amongst organisational levels (senior management - middle management – shop floor management): working groups that belong to different organisational levels make them look for things in a way that reflects their interests and goals, which, in turn, generates conflict among these different goals and interests. For example, Maher (2002) argues that it is typical to find differences between the shareholders’ view(s) expressed in the General Assembly and the views of the Board of Directors, and between the latter and the next managerial level, as a result of differing goals;

• Conflict among functional departments (production - marketing - sales, etc.): a conflict may arise between some departments in the same organisation because the functional nature of the organisation suggests the possibility of more than one department performing identical tasks. For example, sales forecasting can be undertaken by marketing management or production management (Ibid);

• Conflict between executives and consultants: Swailem (2000) points that this type of conflict occurs because the chiefs of management consulting departments do not have the formal authority that the heads of executive management have. On the other hand, Luthans (2008) believes that conflict between executives and consultants is due to the different nature of their work and to different interests as well as to each party's desire to impose its own standards.

As stated in chapter one this intergroup conflict is excluded from further research in this study except where it influences IPC as presented above.

2.6.4 Inter-organisational conflict
Organisations deal with many bodies in the external environment. Thus conflicts are not limited to being only between internal parties (such as intrapersonal conflict, interpersonal conflict and intergroup conflict) but they may also occur between an organisation and its external environment, such as with government institutions, consumers, suppliers and so on. Therefore, some authors (such as Abdolmotalleb, 2003) name inter-organisational conflict as “external conflict”.

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Altira (2008) points out that inter-organisational conflict may arise as a result of: the limited availability of markets for investment, the sizes of these markets, the nature of the structures of supply and demand, and prices. In addition, conflict may arise as a result of the different purchasing power available to individuals and from the nature of the relationships between business organisations that are characterized by competition. Odeily (1995) believes that this kind of conflict could be planned whereas other conflicts are not. This means that conflicts which are unplanned may appear due to some circumstances to which individuals (or any of the organisational divisions in the organisation) are exposed. However, inter-organisational conflict may arise as a result of pre-drawn up plans, such as the competition among organisations. Thus, this kind of conflict is called by Mohammad (1997) as “competition”. He also states that competition has a positive side because it leads to the production of new products and encourages the development of technology. It can result in the reduction of prices and in the optimal use of resources. In spite of these afore-mentioned positive facts, competition may intensify and turn into an unhealthy conflict that could lead to the domination of one organisation over another one. Thus, some governments try to limit the negative aspects of competition by issuing anti-monopoly laws and by establishing rules for dealing with disputes among organisations and by combatting misleading advertisements and industrial espionage (Ibid).

However, inter-organisational conflict may result in problems bigger than those that are created by competition in the market, such as the disagreements that may arise between trade unions and organisations, differences between legal entities and the organisations that are subject to these entities, and the disputes that occur among the relevant parties in a construction project, for example, conflicts between the owner and the consultant or between the client and the contractor.

As stated in chapter one inter-organisational conflict is excluded from further research in this study except where it directly influences IPC as presented above.
2.7 Organisational Conflict by its Directions

Depending on the nature of the relationship amongst the parties of conflict, Al-Rajhi (2008) and Al-Otaibi (2006) differentiate between two trends of organisational conflict, namely:

- Horizontal organisational conflict;
- Vertical organisational conflict.

2.7.1 Horizontal organisational conflict

Horizontal organisational conflict takes place among parties in a certain group or organisational unit, or among different groups or organisational units at the same level which have no authority over each other and which have cooperative relationships and co-dependent performance (Al Rajhi, 2008). An example of this kind of conflict is the conflicts that can occur between the production department and the marketing department or between the procurement section and the finance section.

2.7.2 Vertical organisational conflict

Vertical organisational conflict occurs among parties at different organisational levels whereby some employees are concerned with the tasks of implementation and have limited authority while other employees are specialized in the tasks of directing, controlling and decision-making (Ibid). An example of this is conflicts that occur between officials in consultancy departments who do not have formal authority and officials in the executive management who have formal authority. Al-Otaibi (2006) states that this kind of conflict happens between parties that belong to different organisational levels, such as the conflicts that might occur between supervisors and subordinates within the same organisation.

2.8 Organisational Conflict by its Results

Two types of organisational conflict by its results can be distinguished, namely:

- Positive conflict;
- Negative conflict.
2.8.1 Positive conflict

Such conflict that is caused by minor differences may be necessary for the development and growth of innovation and the improvement of performance and it may benefit individuals, groups and the organisation. The results of several studies (Wood et al., 2010; Robinson and Judge, 2008) confirm that the conflict is positive where it achieves positive results. Some of the positive results from organisational conflict can be summarised as follows (Al-Rajhi, 2008): individuals become enthusiastic and active in searching for better ways of working; positive conflicts helps to develop better ideas and opinions as a result of differences in ideas and opinions; it can lead to the deepening of mutual understanding among the parties of conflict; problems that might otherwise be repressed could be faced and treated; OC is the ground to test the capabilities and skills of officials in the field of managing conflict, and conflicts can sometimes result in choosing the best alternatives amongst those provided because of the need to provide evidences.

2.8.2 Negative conflict

This type conflict causes damage to individuals and groups as well as to an organisation. It occurs, for example, when two or more individuals are unable to work together because of hostilities and rivalries between them, or when the members of a group fail to work together due to an inability to agree on the goals of the group. Some writers such as Robbins (1998) believe that conflict can be negative if it continues for a long time. Al-Rajhi (2008) sums up some of the negative consequences of organisational conflicts as follows:

- OC can lead to the spread of mistrust and suspicion among employees, particularly if conflicts are frequent. Such conflicts may lead to the manifestation of psychological withdrawal (such as apathy) and physical withdrawal (such as fatigue and absence from work) and, in some cases; an individual may show aggressive behaviour (such as vandalism, theft and striking);
- Conflicts may increase any gaps between conflicting parties;
- OCs may lead an individual to favouring self-interest over collaboration and the public interest which, in turn, may lead to anti-work, or what is known as an "anti-team spirit";
• Conflicts may reduce productivity and satisfaction with work;
• The length of a conflict and its intensity can lead to a bad psychological and physical impact (stress) on the participants in the conflict and thus can cause an organisation to lose a most important asset, which is the human element.

2.9 Chapter Summary
This chapter has provided an overview on the nature of OC and on the stages in the development of organisational conflict theory in managerial thought. In the managerial literature there are three theories on OC: the traditional theory, the human relations’ theory and the modern conflict theory. Supporters of the traditional theory believe that conflict in the workplace is undesirable; that it is usually caused by trouble-making members of staff; that it causes negative reactions, and that administrators need to suppress such conflict by any means. The theory of human relations of the conflict is an evolution from the traditional theory. The most distinguished addition by this theory, when compared against the preceding traditional theory, is the recognition of the existence of conflict. It considers that conflict within an organisation is natural, inevitable and unavoidable but that it needs to be controlled so that management can handle it in an effective and timely manner. Adopters of the modern theory of conflict believe that the existence of an acceptable level of organisational conflict in organisations is natural and also necessary in any organisation because it is a reflection of change and development and the quality of any conflict’s outcomes depends on how it is managed.

The chapter also provided an overview of the four types of OC: intrapersonal conflict (which occurs between the individual and himself); interpersonal conflict (IPC) (which happens between two or more individuals in an organisation as a result of interactions with each other); intergroup conflict (this conflict appears between working groups or teams, departments or executives and consultants due to the different nature of their work and differing interests), and inter-organisational conflict (which occurs between organisations as a result of the
limited availability of markets for investment, the sizes of these markets, the nature of the structures of supply and demand, prices and so on).

The next chapter will examine IPC and its management, as well as the causal factors of IPC, in more detail.
CHAPTER THREE
DEVELOPING THE THEORETICAL FRAMEWORK TO THE CAUSAL FACTORS OF INTERPERSONAL CONFLICT

3.0 Introduction
In this chapter an elaboration of the literature review of IPC and the relevant subjects of the causal factors of IPC are given in order to develop an understanding of why IPC occurs and how it can be managed by looking at studies within the existing relevant literature, and in order to achieve the first objective of this inquiry which involves “reviewing the relevant literature on the concept of IPC to create and understand the causal factors of IPC”. Accordingly, this part of the research contains a discussion on: the nature of IPC; the causal factors of IPC; the theoretical framework to the causal factors of interpersonal conflict (IPC), and managing IPC.

The literature review will subsequently be used to establish the foundation for the methodology to conduct the research. This part of the literature review is also used to generate the interview questions (Saunders et al., 2012). Furthermore, the literature review undertaken by this study is subsequently used to facilitate a discussion of the research findings and to enhance the results’ validity.

3.1 Nature of Interpersonal Conflict (IPC)
IPC refers to conflict between two or more organisational members of the same or different hierarchical levels or units (Rahim, 2001). The studies on superior-subordinate conflict and administration officials-workers conflict relate to this type of conflict (Ibid.). IPC may take a visible or invisible form of conflict and it ranges from peaceful opposition to the use of violence (Ibid.). Luthans (2008) stated that IPC conflict occurs as a result of the interaction between individuals and dealings with each other within an organisation. This is because of the different views amongst them, or because of the different needs of individuals and the roles that they undertake, or because of their different personalities, attitudes, values, beliefs and other factors. The causal factors of IPC (which are the main
subject of this study), as found in previous studies, will be presented in the next section.

Maher (2004) and Alfaitori (2004) believe that the “Johari Window” (this is a technique created by Joseph Luft and Harrington Ingham in 1955) is one of the most widely used models in the analysis of the dynamics of interpersonal conflict (conflicts among individuals) as it helps the manager in the detection of potential conflicts in the early stages before they get worse and turn into sharp and uncontrollable conflicts. This model is based on the knowledge of an individual of him/herself and others, and vice versa. Figure 3.1 illustrates this model.

Figure 3.1: Johari Window (Source: Maher, 2004: p. 452)
• First situation: an individual knows him/herself and others

This situation is called the ‘open self’ where an individual is aware of his/her feelings, perceptions and motives, and is also aware of the feelings, perceptions and the motives of others who deal with them. This, in turn, reduces the likelihood of any conflicts between the individual and others. Therefore, this case is considered the best situation to be in.

• Second situation: an individual does not know him/herself but knows others

This case is named the ‘blind self’ where an individual has some information about others but does not have information about him/herself that others know, but they try not to tell in order not to cause any hurt or embarrassment. At the same time, the individual feels he/she is a burden on others, and thus tends to be introverted. Maher (2004) believes that the treatment for this case is to help the individual to quit introversion and to interact with the group and be encouraged by the group by providing the individual with information about him and knowing others’ impressions about him/her.

• Third situation: an individual knows him/herself and does not know others

This case is known as the ‘hidden self’ where the self-perception of the individual is high; however, his/her knowledge about others is almost non-existent. The individual is not aware of the feelings of, or of any information about, others who they deal with, and this is due to a lack of interaction with others. Therefore, he/she cannot explain or predict the behaviour of others, leaving him/her reluctant to deal with others, and this increases the possibility of causing IPC.

• Fourth situation: an individual does not know him/herself and others

This is the worst of all Johari Window cases. It is called ‘unknown self’. Here, the interaction between the individual and others decreases and a lack of understanding and poor communication increases. This may result in a burst of acute cases of conflict. Maher (2004) confirms that the situation can be overcome
by encouraging the individual to interact with others in order to increase his/her awareness and knowledge of others as well as to increase the awareness of others’ feelings and motivations, and also by encouraging him/her to express opinions freely so that others can know, and gain an impression of, him/her.

In general, IPC needs to be managed effectively in any organisation and managers should be able to diagnose IPC by understanding its causal factors (Mullins 2007; Rahim, 2002). Therefore, the next section is devoted to discussing the causal factors of IPC.

3.2 The Causal Factors of IPC

As mentioned in chapter one, this study focuses on examining and identifying the causal factors of IPC in the LCI. Therefore, it is necessary to look at, and understand, the causal factors of IPC as presented in the relevant literature in order to achieve the first objective of the research. Consequently, in this section, the factors that cause IPC which have emerged in the literature since 2000 are gathered and discussed in order to understand the causal factors of IPC in the light of the technological and cultural development of modern societies.

The year 2000 has been selected due to the fast pace of research in this field as discussed in the previous chapter when defining the changes’ theories of IPC management.

Through studying the data in the literature on the causal factors of IPC it can be observed that most of them are theoretical studies (see Table 3.1). This confirms the argument that there is a lack of empirical studies on the factors that cause IPC in countries around the world.

Swailen (2000) argues that the main factors causing IPC are: individual differences; unfair treatment; role ambiguity and role incompatibility. In 2002, Newstrom and Davis listed the factors of IPC as: organisational change; different sets of values; threats to status; contrasting perceptions; lack of trust, and personality clashes (i.e. individual differences). Luthans (2002) argues that the
main causal factors of IPC in organisations are: individual differences; lack of communication; role incompatibility and work stress. Newstrom (2007) has added another factor which is ‘incivility’ and thus his new list contains seven factors. Abdolmotalleb (2003) finds that: the limitation of resources; role ambiguity, and a lack of communication are the main factors that cause IPC in contracting companies in Egypt.

Assaf (2004) mentions that IPC occurs when there are: individual differences; unfair treatment; or a lack of communication. Hellriegel and Slocum (2004) state that IPC can occur due to individual differences or to some type of role incompatibility or role ambiguity. Maher (2004) argues that the factors of IPC can be summarised as: individual differences; role ambiguity; role incompatibility; work stress; organisational change; threats to status; a lack of trust; limitation of resources; and a lack of communication. Mullins (2005) limits the causal factors of IPC to: individual differences; limitations in resources; unfair treatment; organisational change and role incompatibility. In 2007, Mullins added age gap as a factor of IPC. In this study age gap will be merged with individual differences. Al-Otaibi (2006) identifies three further factors which cause IPC: limitation of resources; a lack in determining competences; and a lack in defining responsibilities. Adomi and Anie (2006) argue that individual differences and cultural differences are the main factors causing IPC. Luthans (2008) lists the factors which cause IPC as: individual differences; a lack of communication; role incompatibility and work stress. Brooks (2009) deems that individual differences are one of the most important factors in causing IPC in organisations.

Individual differences (Luthans, 2008) means that everyone has a unique background because no one has the same family traditions, education, culture, intelligence, ability, motivation, perceptions, attitudes, personality and values. Therefore, individual differences can be a major source of interpersonal conflict (Brooks, 2009; Luthans, 2008; Adomi and Anie, 2006). As discussed above, other factors can be added, such as different sets of values, contrasting perceptions personality clashes, cultural differences and age gap; all these together can be grouped under the collective name of ‘individual differences’.
Table 3.1: The factors causing IPC since 2000

<table>
<thead>
<tr>
<th>Factor of IPC</th>
<th>Studies of IPC Since 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incivility</td>
<td>Newstrom (2007) ().</td>
</tr>
</tbody>
</table>

* Theoretical studies- 10 Nr.
** Empirical studies- 4 Nr.

Theoretical studies = 71% of the studies.
Role ambiguity (Swailem, 2000) refers to the uncertainty in, and a lack of clarity in, determining competences and defining responsibilities. Thus, three factors (namely; role ambiguity; a lack of determining competence; and a lack of defining responsibility); can be subsumed under the collective name of ‘role ambiguity’.

In the preceding discussion, it can be seen that some researchers have researched certain factors such as individual differences (Brooks, 2009; Luthans, 2008; Newstrom, 2007; Mullins, 2007; Adomi and Anie, 2006; Hellriegel and Slocum, 2004; Maher, 2004; Newstrom and Davis, 2002; Swailem, 2000), role ambiguity (Al-Otaibi, 2006; Hellriegel and Slocum, 2004; Maher, 2004; Abdolmotalleb, 2003; Swailem, 2000) and role incompatibility (Luthans, 2008; Mullins, 2007; Hellriegel and Slocum, 2004; Maher, 2004; Swailem, 2000). Table 3.1 summarised and categorised the factors that cause IPC as identified from the literature since 2000.

The eleven factors are incorporated into the theoretical framework and organised into four broad categories or themes: individual differences; behavioural factors; financial factors; and organisational factors. The next section gives details of the theoretical framework structure to IPC which will increase the effectiveness of the fieldwork.

3.3 The Theoretical Framework to the Causal Factors of Interpersonal Conflict (IPC)

According to Collis and Hussey (2009), a theoretical framework is a collection of theories and models from the literature and it is a fundamental part of much research as it explains research questions or hypotheses.

This section justifies the theoretical framework to the causal factors of interpersonal conflict (IPC) which was developed from the literature review. Successfully identifying, managing and explaining IPC depends on these basic factors.

The original eleven factors have been reorganised into four themes to include: individual differences; behavioural factors (incivility, lack of trust, unfair
Treatment, and threats to status; financial factors (limitation of resources) and organisational factors (role ambiguity; role incompatibility; a lack of communication; work stress, and organisational change).

Figure 3.2: The Theoretical Framework to the Causal Factors of Interpersonal Conflict
These factors will be used as a guide to collecting the relevant data for this study. The factors have been constructed according to the information and issues revealed through a detailed review of the literature, as discussed in the previous sections. Figure 3.2 illustrates the theoretical framework developed for the purpose of this research.

It should be noted that all themes are considered interrelated and interconnected. Also, all themes are considered equal in their importance.

The development of the theoretical framework plays a significant role in the process of selecting the appropriate research methodology, which is the case study research strategy. In addition, the function of the theoretical framework in this study is to formulate an explicit theory that could be used to achieve the aim of the research, through looking at the IPC factors that cause IPC in the Libyan Cement Industry. Thus, this research will synthesise the findings of the two case studies with the various themes in the theoretical framework based on the literature review.

The rest of this section will discuss the main elements of this framework.

3.3.1 Individual differences factors
Not everyone thinks, feels, looks, or acts alike and some people simply ‘rub us up the wrong way’ and we cannot necessarily explain why. Personality differences can also cause conflict as well as different values and beliefs (Newstrom, 2007). Consequently, many scholars like Luthans (2008); Adomi and Anie (2006); Bagshow (1998); Whetten and Cameron (1991) believe that individual differences are a major source of IPC. In addition, Luthans (2008) states that disagreements stemming from individual differences often become highly emotional and take on moral overtones. At the same time, individual differences can provide diversity in an organisation by providing a range of ideas and approaches, but they can be hazardous if not properly handled (Murphy, 1996);
Individual differences are recognised herewith, but a detailed study is not being undertaken further due to research constraints. The study of this theme could form a PhD in its own right.

### 3.3.2 Behaviour factors
These include: threats to status, lack of trust, incivility and unfair treatment.

#### 3.3.2.1 Threats to status
Status or position is believed to be very important to many people in any organisation, hence when they feel that they will lose their status they become a powerful driving force and struggle to maintain a desired image. Newstrom (2007) argues that conflict may arise between a defensive person and whoever creates a threat to his/her status. High threat to status employees are seen to take unnecessary actions such as mistreatment, information secrecy etc, to protect their status (Maher, 2004). On the other hand, positions of safety (a stable position) provide effective interpersonal relationships, trust and an environment that creates a friendly atmosphere (Ibid).

#### 3.3.2.2 Lack of trust
Trust can be defined as perceived trustworthiness where people expect support and believe that they have a relationship where they can discuss issues and rely upon each other (Hempel et al., 2009). Every continuing relationship requires some degree of trust that opens up boundaries, provides opportunities in which to act, and enriches the entire social fabric of an organisation (Newstrom, 2007). Efficient relationships are based on trust, where people work as a team, respect each other’s beliefs, values and opinions. Interpersonal and professional relationships are to a great extent connected to the level of trust between them. Trust develops with experience and behaviour and thus is predicted by the interaction factors between individuals or groups (Kramer, 2006).

Trust takes time to build but it can be destroyed in an instant. When someone has a real reason not to trust another, situations of conflict may increase (Newstrom, 2007). Maher (2004) argues that a lack of trust has serious consequences, often leading to withdrawal and a lack of positive interaction in the workplace. Langfred (2007) confirms that conflicts between team managers and team
members in organisations have a negative impact on trust relationships which, in turn, affect employees’ performance negatively.

The results from the Hempel et al. (2009) study found that a cooperative approach to conflict management between team members and team managers has a positive impact on promoting trust relationships and on increasing the performance of team members, whereas a competitive approach has a negative impact on trust relationships and on the performance. Therefore, they recommend that managers and employees need training on the collaborative approach to internal conflict management in order to promote trust relationships and to obtain the constructive atmosphere that enhances organisation performance and productivity.

3.3.2.3 Incivility
Pearson and Porath (2005) and Newstrom (2007) argue that incivility in the workplace is regarded as negative, deplorable and unacceptable behaviour for everyone because it leads to conflicts amongst individuals inside the organisation.

Workplace incivility occurs when employees fail to exhibit concern and regard for others or disrespect each other on the job (Pearson and Porath, 2005). A lack of consideration can appear in many forms including brusque greetings, sarcasm, failure to return borrowed supplies, selfishness, showing up late for appointments, untidiness and noise (such as playing a radio loudly). Workplace incivility can cause tensions to rise, anger to grow, and conflicts to emerge (Newstrom, 2007).

3.3.2.4 Unfair treatment
Some organisations have a strong status difference between managers and non-managers (Assaf, 2004). For example, managers could have flexible schedules, be allowed personal telephone calls at work and have longer lunch hours which are not available to other employees. This usually leads to resentment and conflict between employees (Swailem, 2000).

Research in organisational justice has shown that when employees see themselves as being treated fairly, they develop attitudes and the behaviour required for successful change even under bad conditions (Cobb et al., 1995). In contrast, when injustice prevails in management decisions, the affected employees can be
dominated by feelings of anger, outrage, and a desire for retribution (Folger, 1999). In addition, Folger (1999) and Jermier et al. (1994) believe that unfair treatment to workers usually leads to resistance to change and to the expression of feelings of injustice and anger.

Toh and Denisi (2003) argue that employees who feel they have been treated unfairly are more likely to withdraw and may engage in counterproductive work behaviour which, in turn, can generate conflict.

Lindquist (2010) found that unfair treatment has a negative impact on workers’ efforts and their willingness to work overtime. Therefore, he suggested that employers should consider the negative effect of unfair treatment on effort and overtime when designing contracts and determining promotions.

### 3.3.3 Financial factors

Financial factors include limitations in resources and facilities.

#### 3.3.3.1 Limitation in resources and facilities

All organisations have limited resources and attempt to find the most efficient way of utilising resources in order to accomplish tasks. For example, if an organisation orders new computers for many of its staff and they cannot use the computers until the technician sets them up and if there is only one technician and each job takes an hour, competition will arise amongst staff for the technician’s time. Resources in an organisation include: money, supplies, space, materials and equipment; all of which are important for everyone (Daft et al., 2010). Employees compete for these scarce resources and this causes conflict between them (Mullins, 2005; 2007) One study found that competition for limited resources often leads to negative conflicts (Hitt et al., 2006).

### 3.3.4 Organisational Factors

These include: role ambiguity; role incompatibility; work stress; a lack of communication; and organisational change.

#### 3.3.4.1 Role ambiguity

Role ambiguity occurs when an individual does not have adequate information on the nature of the work required in the organisation or when there is a lack of
defined responsibilities (Luthans, 2008). Al-Otaibi (2006) and Maher (2004) have identified that role ambiguity occurs due to a lack of proper job descriptions or a lack of understanding of the nature of the work. In such cases the official supervisor should clarify the functions and responsibilities of each subordinate working under his/her supervision (Al-Otaibi, 2006). Almusdy (2007) added that administrative work is usually characterised by more ambiguity than technical work.

The main reasons for the role ambiguity in any job can be summarized by the following:

- Lack of adequate information given by the manager or supervisor to the employee in respect of his/her role in the organisation. Workers need job descriptions to reduce role ambiguity (Luthans, 2008);
- Information provided by the administrator or the supervisor or colleagues is not clear or is confused (Maher, 2004);
- Deficiency in the instructions given on how to perform the tasks entrusted to the employee in order to perform the role expected from him/her (Ibid);
- A lack of clarity concerning the outcomes expected from the role of the individual. This is the case when the employee exceeds the required goals, or fails to achieve them, or achieves the goals in a manner unfamiliar to the organisation (Ibid).

Role ambiguity can be reduced through:

- Setting job descriptions in a way that shows the duties, responsibilities and authorisation for each job and it must be taken into account that the job description should be precise so that it does not allow goals and responsibility of the individuals to interfere with the responsibilities of others (Fayath, 1991);
- Identifying work approaches and procedures and documenting them in a manner that ensures that they can be referenced when needed. They should
also be set up with the participation of the workers who are performing them (Ibid);

- Conducting planning and training courses for officials (from time to time) in order to revitalise them and to develop their performance (Ibid).

3.3.4.2 Role incompatibility

Hellriegel and Slocum (2007: 250) define roles in the workplace thus: “a role is a group of tasks and behaviours that others expect a person to perform while doing a job”. The expected role of an employee acquires great importance in business organisations because it plays an important role in the evaluation of employees’ performance and in obtaining material and moral incentives (Luthans, 2008; Maher, 2004). People living in today’s society usually perform several roles at the same time. An individual may belong to many groups, for instance an individual can be an employee of an organisation and at the same time be a spouse or parent as well as being a member of a project within the organisation or outside the organisation. Consequently, each group expects the person to achieve specific goals. However, these goals may be incompatible and may raise IPC between that person and other members of those groups. Therefore, it can be stated that IPC may occur when an individual performs more than one concurrent role which includes incompatible goals (Luthans, 2008; Hellriegel and Slocum, 2004; Swailem, 2000).

Moreover, Abdolwahed (2008) believes that role incompatibility usually occurs as a result of malfunctions in an organisational structure which causes duplication in authority and in the making of decisions which may be conflicting, thus causing conflict among individuals.

In addition, employees can be placed in the category of role incompatibility when they receive incompatible/mismatched orders and directions from one manager or from more than one manager (Hellriegel and Slocum, 2007). One example could be an employee working in the financial department of a company who joins a committee to purchase stationery for the company. This employee may be placed
in a position of role incompatibility if he/she receives incompatible orders and
directions from two bosses.

### 3.3.4.3 Work stress

Luthans (2008: 247) defines stress as “an adaptive response to an external
situation that results in physical, psychological, and/or behavioural deviations for
organisational participants”.

In addition, Ammar (2006) affirms that recently there has been growing support
for the theory that argues that “work stress is a main factor in the occurrence of
many organisational conflicts”.

In this regard, Zobi (2009) identifies work stress as a stimulus in the workplace
that can expose workers to reactions which affect them psychologically,
physically and behaviourally and this effect may be negative or positive.

Luthans (2008) presents many of the negative effects of work stress including:
inability to make the right decisions; increases in aggressive behaviour; increased
turnover; high absenteeism; low productivity, and high levels of organisational
conflict. Furthermore, Newstrom (2007) indicates that work stress has negative
effects on an individual's health and can cause high blood pressure, ulcers,
tachycardia, high blood sugar and other diseases.

The UK National Work Stress Report (2013) stated that in 2013 up to 20,000
workers will die prematurely of heart attacks, cancers or suicide caused by
excessive work stress. Disease caused by job stress costs UK employers more
than £1.24 billion per year (SMS, 2013).

On the other hand, Zobi (2009) argues that job stress has positive effects, if it
occurs at a moderate rate, which includes: motivating individuals to work;
increasing their focus on work; helping them to express their feelings; helping
them to feel they have achieved; and causing them to look to the future
optimistically.
In studies by several authors on organisational behaviour they declare that work stress is generated as a result of a number of reasons including:

- **Workload:** when workload increases, stress on an individual increases and results in lower performance and illness (Banat, 2009);
- **Lack of trust:** when trust is lacking between a boss and his/her subordinate or vice versa, feelings of stress and anxiety arise (Shaber, 2009);
- **Administrative instability:** the forms of administrative instability in organisations which results in many psychological stresses on workers are: unstable organisational structures; redesigned jobs; unstable management policies; changing the principles for career promotions and rewards (Ammar, 2006);
- **Lack of communication:** one study indicated that whenever relationships between workers are poor, the rates of work stress are high, since many stresses occur due to misunderstandings or to a lack of trust due to poor communication (Shaber, 2009);
- **Frequent disagreement between individuals and a lack of coherence in the community:** (Maher, 2004; Luthans, 2008);
- **Incompatibility between the personality of an individual and the official organisational requirements:** (Malaga, 2011);
- **Personality style:** Malaga (2011) states that individuals who are characterized as quick to anger or who are aggressive are more prone to work stress;
- **Role ambiguity (work ambiguity):** causes psychological stress due to a lack of information received from the supervisor or the administration concerning clarifying the nature of the job and its requirements and the limits of responsibility of the individual (Banat, 2009);
- **Role conflict:** includes the stress experienced by an individual as a result of receiving contradictory goals and orders from more than one manager (Luthans, 2008) or the conflicting demands of family and work requirements. Work can require individual absences from the family for a long time (including frequent business travel) which may result in family problems; this can affect the psychology of an individual and put the person under greater stress (Banat, 2009).
Overall, Ammar (2006) notes that work stress is one of the most important causal factors of organisational conflict. Additionally, Luthans (2008) and Newstrom (2007) assert that organisational conflict is one of the causal factors of work stress. Therefore, it can be deduced that work stress and organisational conflict are two sides of the same coin.

3.3.4.4 Lack of Communication
Communication within any organisation includes all the methods used by managers and employees for the exchange of information. One study found that managers spend more than 78% of their working time on communication (Thill and Bovee, 2001). Managers are continuously dealing every day with information and data. They collect data and analyse it in a manner which is intended to help promote good performance and achieve the goals of the organisation. Maher (2004) states that the importance of communication lies in helping organisations do the following:

- To determine the goals of the organisation and achieve them;
- To evaluate the performance and productivity of the organisation;
- To help individuals and various units of the organisation in coordinating tasks;
- To guide workers and advise them;
- To issue orders and instructions;
- To influence others and their leadership.

Abdolmotalleb (2003) noted that lack of communications are one of the most common and clear factors that cause conflict within contracting projects. He also identifies that a lack of trust, respect and active listening can lead to serious problems during the communication process. Individuals can also misinterpret messages which can lead to conflicts as a result of misunderstanding (Luthans, 2008). Abdolmotalleb (2003) advises, in his study on organisational conflict management strategies for construction projects in Egypt, that work team managers learn the skill of effective listening and find an appropriate climate to promote open communication (open door policy) in order to reduce conflicts.
3.3.4.5 Organisational change

With the pace of technological, political and social change increasing and the marketplace hurtling towards a global economy, organisational change will be ever present and conflict can then exist as a result of change resistance (Newstrom, 2007). This resistance may be violent and have a negative impact on an organisation particularly if the changes come suddenly and are misguided (Harem, 2009). Among the negative impacts of resistance to change are: low productivity, a slowdown in the rate of the work and creating conflicting relationships between individuals within the organisation (Dahlan, 2012). However, if a change is studied and planned in advance, the associated resistance to change is expected to be reduced and the change can be implemented much more easily (Maher, 2004). Therefore, a successful manager should be able to manage change in order to gain positive impacts for the organisational environment (Ibrahim, 2008).

Harem, (2009: 512) defines resistance to change as an "emotional and behavioural response to a real or expected thing that threatens the current working system". However, Maher (2004) points out that most of the research on resistance to change has confirmed that individuals accept change as inevitable in their lives and what they tend to reject is the way that the changes are implemented. In this respect, Harem (2009) adds that some resistance to change factors are linked to the individual, some to the community or group, and some are linked to the organisation.

A number of researchers have summarised the factors involved in resistance to change (Kreitner and Kinicki, 2008; Maher, 2004) and they include the following:

- Fear of the unknown;
- The time for the change that is to be implemented feels unsuitable;
- Lack of a sense for the need for change;
- When a change comes suddenly and is not carefully considered;
- When there is lack of confidence in those who make changes;
- Loss of status or job protection;
• When there is weak, or a lack of, communication about the planned change;
• When the change is associated with problems and stress;
• When there is great satisfaction with the current work situation.

This section described the main causal factors of IPC which forms the underpinning theory for the selection of a suitable methodology as described in chapter five.

3.4 Managing Interpersonal Conflict (MIPC)

The concept of conflict management is clearly apparent in management literature over the last few decades, reflecting the increasing interest of organisations and researchers in the subject of organisational conflict and its effect on the performance of individuals and organisations. Conflict management reflects the evolution that has occurred in the concept of organisational conflict that has passed from the phase of traditional thought which was labelled “conflict prevention” to the phase of “conflict management”. It then appeared as the concept of “conflict resolution” that reflected the school of human relations as a synonym for the term of conflict management. One of the most important changes that modern schools of conflict resolution have made is the adaptation of conflict management concepts, because conflict management is broader and more comprehensive than conflict resolution. The differences between conflict resolution and conflict management will be explained later when dealing with managing interpersonal conflict stages.

Recently, conflict management skills have become necessary skills which managers at different managerial levels must have in all types of organisations (Wood et al., 2010). One study found that managers rate conflict management as equal to, or higher in importance than, other managerial functions, such as planning, motivation, decision making and communication (Hitt et al., 2006). The activity of conflict management aims to put conflict at a level that is determined by the administration of the organisation, according to its internal and external environmental circumstances, in order to attain positive effects and to reduce conflicts negative effects.
Hassan (1990: 205) defines conflict management as “a group of approved methods and procedures by the administration of an organisation to diagnose conflict, to deal with it and to invest in conflict management as much as possible”. Altira (2008) defines managing interpersonal conflict (MIPC) as that activity which management of an organisation undertakes in order to keep conflict within targeted boundaries in order to increase the efficacy and effectiveness of the organisation in fulfilling its goals and its managers’ and employees’ goals. Hassan (1990) recommends discovering conflict at its early stages before it becomes difficult to be controlled.

Lussier (2006) argues that managing interpersonal conflict (MIPC) is a process that needs changes in attitudes, behaviour and organisational structure in order to ensure that members of an organisation can work with each other effectively in order to attain their individual and/or joint goals. Rahim (2002) states that the process of MIPC involves diagnosis and intervention, yet also involves teaching organisational members styles or approaches of managing IPC to deal with different situations effectively and of setting up appropriate mechanisms so that unresolved issues are dealt with properly. Approaches to managing IPC will be discussed later in this chapter.

From the above, it can be deduced that the process of managing interpersonal conflict contains two fundamental stages; the stage of conflict diagnosis to determine the level of conflict and its causal factors (Rahim, 2002; Hassan, 1990) and then comes the stage of intervention (Rahim, 2002) or as some call it “conflict treatment” (Hassan, 1990) which includes conflict resolution if the conflict is at a high level, or conflict stimulation if it is at a low level i.e. at less than that which is needed (according to the modern perspectives of conflict).

### 3.5 Factors that Assist in Managing Interpersonal Conflict

Wood et al. (2010) and Altira (2008) set out a number of factors that assist in managing IPC in the work place which are listed below:

- Support for managers who are responsible for managing conflicts;
• Ensuring that employees are familiar with the organisation's policy on IPCs;
• Facilitating discussion sessions to appropriately debate workplace relationships and interpersonal tensions;
• Training employees to effectively communicate in order to support the resolution of conflicts;
• Appointing conflict contact officers to listen to concerns and help staff find ways to resolve them;
• Providing support services such as employee assistance programmes which can be accessed on a confidential, self-referral basis;
• Encouragement of trust between management and the employees and therefore helping towards conflict resolution acceptance. If an environment of distrust prevails any proposed resolutions will not be accepted;
• Making sure that any improvement or change that managers want to make in an organisation is widely accepted by the employees in order to decrease any negative effects which may arise.

3.6 Stages of Managing Interpersonal Conflict
Managing interpersonal conflict involves two main stages: conflict diagnosis and conflict treatment (intervention).

3.6.1 Conflict diagnosis
The stage of conflict diagnosis is considered as a first and fundamental step in MIPC in order to obtain positive results and to decrease negative effects by analysing the nature of the conflict type and level (Algrioyt, 1993) and to determine who are the parties to the conflict and who has an interest in its continuance. In this regard, Rahim (2001) noted that the effective beginning of managing interpersonal conflict starts with an identification of its causal factors.

According to the preceding discussion, it can be explained that conflict diagnosis firstly depends on determining the level of conflict: whether it is (a) at a high level that needs to be addressed in order to decrease its negative side effects which usually have a direct effect on the motivation of employees and their performance (Wood et al., 2010); or if it is (b) at a low level which may lead employees to become careless about their work which, in turn, will negatively affect the
performance of the organisation (Mullins, 2007); or if it is (c) at an acceptable level from the perspective of the management of the organisation and just needs monitoring and follow-up so as to ensure that it will not increase and exceed the acceptable limits (Maher, 2004).

Hassan (1990) identifies a number of methods to diagnose conflict as follows:

- Field visits to sites which suffer from tensions;
- The establishment of suggestions’ and complaints’ boxes and other means of expression;
- The establishment of an open door policy and listening to the others;
- Individual and group interviews and regular meetings;
- Analysis of official records and documents to determine attitudes and trends of the employees towards each other, their work and the management.

Once a diagnosis of conflict has been made certain actions can/should be taken which can be summarised as follows (Hassan, 1990):
- Determining the level and the type of conflict;
- Determining the causal factors of the conflict;
- Decreasing the efforts that may be paid to non-determinates of the scope of the problem that is causing the conflict;
- Identifying the real problem and treating it immediately alongside others.

3.6.2 Conflict treatment
After determining the level of conflict and its causal factors, next comes a new stage of managing conflict which is called ‘conflict treatment’. This stage includes the resolution of the conflict if the conflict exceeds an acceptable level, or stimulating the conflict if it is less than the required level.

3.6.2.1 Conflict resolution
After a conflict is diagnosed as being at a high level, then management needs to identify its causal factors in order to choose the appropriate style to resolve it. In managerial literature there are many models of interpersonal conflict resolution. From reviewing the literature on managing interpersonal conflict it is found that the models of Blake and Mouton (1964), Thomas (1976) and Rahim (2002) are
the ones most widely used in previous studies; this fact is confirmed by Wood et al. (2010) and Al-Rajhi (2008).

Wood et al. (2010) argue that Blake and Mouton’s (1964) model was the first model to classify styles of IPC resolution into five basic types: Smoothing (Accommodating), Problem Solving (Collaborating), Compromising, Avoiding, and Forcing. This model was dependent on merging two main dimensions: the concern for production or work and the concern for workers (employees) by the manager (see figure 3.3).

Rahim (2001) also identifies five styles of conflict resolution which he analyses according to the orientation towards concern for self or concern for others. His five styles are: Integrating; Obliging; Compromising; Dominating, and Avoiding (see figure 3.4).
Thomas (1976) developed Blake and Mouton’s model further by suggesting that the five basic styles could be compared in two dimensions (see figure 3.5): Assertiveness (which is attempting to serve one’s own interests) and Cooperativeness (which consists of a desire to serve the interests of others). Through the overlap of these two dimensions there appeared to be five methods of conflict resolution: Collaborating; Competing; Avoiding; Accommodating, and Compromising (see figure 3.5).

It should be noted that Mary P. Follet in 1940 was the first who noted that conflicts between employees in organisations can be resolved by three fundamental approaches: Domination, Compromise and Integration (Rahim 2001). However, Follet (1940) did not develop a model for resolving IPC. Based on a review of the literature on MIPC, it can be observed that Rahim’s (2001) model is the newest model that has been developed in this area.
However, Thomas’ model is more widespread and more commonly used. Therefore, this study adopted Thomas’ model as a foundation to the discussion of methods of resolving conflict between individuals (after discussing the similarities and differences between the three models).

Table 3.2 provides a comparison of the approaches of resolving IPC together with their potential outcomes.
Table 3.2: Approaches of resolving IPC and its potential outcomes

<table>
<thead>
<tr>
<th>Models</th>
<th>Approaches of resolving IPC and its Potential Outcomes</th>
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<tr>
<td></td>
<td>Win-Win</td>
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<tr>
<td>Follett (1940)</td>
<td>Integration</td>
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<tr>
<td>Blake and Mouton (1964)</td>
<td>Problem-solving</td>
</tr>
<tr>
<td>Thomas (1976)</td>
<td>Collaborating</td>
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<tr>
<td>Rahim (2001)</td>
<td>Integrating</td>
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Rahim (2002) argues that the integration style indicates a high concern for self and others and that it is a problem-solving approach which involves collaboration between the parties. Newstrom (2007) supports the same idea by arguing that problem-solving styles or integration are also known as confronting or collaborating and result in a win-win outcome.

The dominating approach indicates high concern for self and low concern for others (Rahim 2001; 2002). The dominating style is also known as the competing style (Newstrom, 2007; Rahim 2001; 2002). This style has been identified with a win-lose orientation or with forceful behaviour in order to win one’s position. A competing or dominating person goes all out to win the objective and, as a result, often ignores the needs and expectations of the other party/parties. Therefore, dominating or competing may mean standing up for one’s rights and/or defending a position that the party believes to be correct (Newstrom, 2007).

A smoothing approach is also known as an accommodating approach (Newstrom, 2007; Rahim 2002; 2001). This style places the greatest emphasis on concern for others, usually to one’s own detriment. Thus it results in a lose-win outcome.

Based on the previous discussion, it can be noticed that the three styles are different in the dimensions that they put forward but they almost agree on conflict resolution approaches. The differences in the dimensions of the models have helped to enrich the use of approaches to conflict resolution (based on the circumstances...
surrounding the situation of conflict and its diagnosis) as will be noted when explaining each approach to conflict resolution.

Before commencing an analysis of IPC resolution approaches, it should be noted that the adaptation of, or the use of, one of the approaches of conflict resolution is not suitable in every situation and circumstances (Rahim, 2001). However, a successful management uses appropriate styles at the right moment to solve a problem appropriately (Wood et al., 2010; Al-Rajhi, 2008). Also, many researchers into organisational behaviour and managerial science confirm that the choice of the appropriate approach to resolve IPC depends on the context and the circumstances surrounding the subject of conflict (Wood et al., 2010; Al-Rajhi, 2008; Lussier, 2006; Rahim, 2002).

### 3.6.2.1.1 Approaches to IPC resolution

The approaches to IPC resolution are listed below:

*The collaboration approach (win-win outcomes):* This style is also called the problem-solving approach (according to the Blake and Mouton model of 1964) and is also called the integration style (according to Rahim’s model of 2001). In this approach the degree of an individual’s concern about him/herself and others is very high and the manager has a immense sense of concern about the employees and about the work undertaken. This idea was supported by Gorse (2003) who argues that the integrating or collaboration approach should be discussed in three dimensions, namely self, others and task, as well as other approaches of conflict resolution. In other words, any one that uses this style will try to achieve an outcome that capitalises on the maximum interests of both conflict parties by diagnosing the problem, evaluating the available resolutions and clarifying the differences and similarities in order to reach an appropriate resolution agreed by everybody (Lussier, 2006).

In fact, this approach needs great effort and ample time to make it successful because it needs to integrate different points of view. This method does not assume that one of the parties will lose as a result of the gain of the other party as it works to achieve win-win for both parties through understanding the points of
view of all parties and working to find a suitable solution for all of them (Zayed, 1995).

Some researchers prefer not to use this approach in cases where the situation needs a quick decision (Lussier, 2006) or if the conflict is caused by differences in values and beliefs (Swailem, 2000). Rahim, (2001) considered this style as suitable for matters that are related to long-term goals, policies and planning and he believed that this style is suitable for chronic problems. According to Quick and Nelson (2006), the collaboration approach is the preferred style to be used in the following cases:

- When looking to find an integrative solution when both sets of concerns are too important to be compromised;
- When the objective of both sides is to learn;
- In order to merge insights from people with different perspectives;
- In order to gain commitment by incorporating concerns into a consensus;
- In order to work through feelings that has affected a relationship.

The competition approach (win-lose outcomes): In this approach the degree of self-attention to gratifying individual needs and interests are high while the degree of individual interest in the needs and concerns of others is low. In this case the individual will try to achieve self-advantages and goals regardless of others (according to the models of Thomas (1976) and of Rahim, 2001). The individual will struggle to achieve personal goals with determination and will take the initiative to control the situation in order to maximize the achievement of his/her own demands because he/she does not recognize nor care about the interests of others.

This style is based on the assumption that conflict is a process of winning or losing. For example, a manager using this approach may try to enforce his employees to obey his points of view and suggestions in order to increase the production rates (according to Blake and Mouton, 1964). Zayed (1995) believes that subordinates in this situation think that there is a negative relationship between their goals and their manager’s goals and that these goals are
incompatible goals. In other words, achieving the goals of one of the parties may affect the goals of the other parties negatively. Subordinates will be cooperative in a case where the common goal of all is to achieve specific functional tasks but, on the other hand, if the subordinates are in a competitive situation all of them want to prove to their manager that each is able to accomplish functional tasks better than the rest of their colleagues.

According to Nelson and Quick (2006) and Rahim (2001) this approach could be used in the following situations:

- In areas that need quick decisions;
- Where the subject of the conflict is not important;
- In the cases of implementation of strategies and policies by senior management;
- In conflicts resulting from a lack of resources (Zayed, 1995).

**The accommodating approach (lose-win outcomes):** According to this approach the degree of concern by the individual for the individual is very low and the concern for others is very high (the Thomas model, 1976 and the Rahim model, 2001). This style is conscious of the other parties’ satisfaction regardless of the work undertaken (according to the Blake and Mouton model, 1964). It means that an individual will try to satisfy the needs of others at the expense of him/herself. The individual will work to calm down the situation by letting the other party resolve the conflict in a way that is satisfying to them (Maher, 2004). Harem (2009) and Rahim (2001) explain that this style can be suitable if one of the parties is willing to give up something because they are hoping to get something else in return from the other party in the future. Swailem (2000) argues that the accommodating approach does not produce a radical solution to conflicts in the work place and that it only provides a temporary solution.

Lussier (2006) and Nelson and Quick (2006) summarised appropriate cases in which to use the accommodating approach, as given in the following list:

- When there is a limited time to address the conflict;
- When the issues of interest are of more importance to others;
• When management wants to resolve the conflict temporarily;
• When management wants to know the views of employees;
• In order to enhance the spirit of collaboration by satisfying others;
• When the administration provides an opportunity for subordinates to develop themselves through learning from their mistakes.

**Avoidance Approach (lose-lose outcomes):** According to this approach, the degree of individual concern is very low as is the concern for others (According to the models of Rahim, 2001 and Thomas, 1976). People avoid conflict by: refusing to take a stance; by mentally withdrawing; or by physically leaving. A lose-lose situation results because the conflict is not resolved (Lussier, 2006).

This approach reflects the needs of an individual to escape from facing up to conflict and ignoring all other interests by trying to decrease the risks of the conflict, and may suggest that the other parties should not waste time in thinking about solving the problem (Maher, 2004). Lussier (2006) states that managers’ avoidance of conflicts does not help in finding a solution and may well increase conflict which then might be difficult to resolve with the passage of time. Al-Otaibi (2006) argues that managers usually use this approach to keep harmony and achieve a relative calming of the differences in the workplace. In addition, Zayed (1995) believes that the avoidance style may be useful in situations which need a time period to think and rethink on the subject matter. A number of writers such as Lussier (2006) and Al-Otaibi (2006) suggest that this approach is suitable for the following situations:

• When the issue of differences is less important or the subject of the controversy is simple and secondary;
• When there are more important matters than the subject of the conflict;
• When the losses of the conflict exceed the possible benefits;
• When there is a need for additional time to gather more information on the subject of the conflict;
• When there are others able to resolve the conflict in a more effective way.
Compromise Approach (no win/no lose outcomes): This approach tries to achieve the partial interests of each of the parties to the conflict through mutual sacrifice, thus there is no winner or loser in such a compromise approach (Rahim, 2001). This approach may contain an attempt by the conflicting parties to make an agreement between them which includes the distribution of common resources according to every parties’ rights, or agreement may be attained by the intervention of a third party who plays the role of arbitrator between the conflicting parties (Maher, 2004). The results of this approach depend on the following considerations (Al-Otaibi, 2006):

- The extent of the power possessed by each party or parties in the conflict;
- The standards and the values of justice which each party embraces;
- The degree of adherence by each party to the offered demands.

Rahim (2001) asserts that this approach is effective if there is equality in the power of each of the parties. However, in situations where one party is more powerful than the other, this approach becomes ineffective because the powerful party will suggest a one-way solution. Lussier (2006) believes that the compromise approach will not produce an effective solution; in fact it produces a temporary resolution because the causes of the conflict may reappear again.

Assaf (2004) prefers to use this approach in cases where conflicts about basic issues must be resolved and thus the administration resorts to avoid confrontation as much as possible. In this situation one is working with knowledge of what is possible in order to compare the views of the various parties by searching for any common denominators and then promoting a resolution by achieving some concessions from each side starting from the least significant concessions to the most. This imposes awareness on management of all the sensitivities of the conflict subject.

The following is a summary of the situations where the compromise approach is suitable for use:

- When the conflict's parties possess equal power and want to reach a solution (Swailem, 2000);
• When there is an urgent need to reach a temporary resolution to a complicated problem (Al-Rajhi, 2008; Rahim 2001);
• As an alternative approach in the cases where the approaches of competition and collaboration fail (Lussier, 2006; Nelson and Quick, 2006);
• Rahim (2001) believes that this technique is very useful in the case of long-term chronic conflicts.

3.6.2.1.2 Conflict resolution approaches’ outcomes
A number of writers such as Lussier (2006) and Newstrom (2007) have stated that the approaches to interpersonal conflict resolution may produce one of the following outcomes:

• **Win-Win outcome:** This outcome occurs as a result of the use of the collaboration approach when all the conflicting parties meet and discuss the subject of the dispute explicitly and every party tries to care about the purpose and needs of the other party/parties (Newstorm, 2007).

• **Lose-Lose outcome:** This situation arises when using the approach of avoidance. In such a situation none of the parties reach the desired result.

• **Win-Lose outcome:** This outcome arises as a result of using the approach of competition or force whereby one of the conflict parties will achieve its goals at the expense of the other party/parties due to the possession of power or influence. This situation may occur when an administration issues orders to dictate a resolution from which certain parties win and the other party/parties loses (Lussier, 2006).

• **Lose-Win outcome:** In this situation, one of the conflict parties is trying to please and satisfy the needs of the other party/parties at their own expense. This situation arises as a result of resolving the conflict using the accommodating approach (Ibid).

• **No win & no lose outcomes:** There is no winner or loser in this result. This situation results from the use of the compromise style by which each of the conflict parties achieve part of their goals and gives up others (Ibid).
3.6.2.2 Stimulating the conflict

To achieve dynamic equilibrium an organisation sometimes needs a conflict to be stimulated in order to break a stagnant situation. Accordingly, stimulating conflict can be critical in the management of organisational conflict in general.

The means used in conflict stimulation can be categorized into one of the two following levels (Hassan, 1990; Al-Rajhi, 2008):

**The first level**: attained by structural changes in an organisation and is achieved by one or more of the following:

- Redesigning the organisational structure including creating a contradiction between individual goals and the organisation's goals (Al-Rajhi, 2008). On the other hand, Robbins and Judge (2012) argue that the style of changing such an organisational structure is considered a dangerous matter and advise taking care when using it to stimulate conflict because it is considered a great source of conflicts;

- Redesigning production systems and working methods and techniques which changes the attitudes of individuals and redirects their attention to new competitive situations making them rethink their current attitudes (Hassan, 1990);

- Redistributing the workforce and creating horizontal and vertical mobility in roles and places or geographical locations, including imposing changes in organisational relationships (Ibid);

- Reconsidering work instructions and conditions especially those related to the responsibilities, powers and privileges that stimulate employees to change their behaviour and attitude at work (Ibid).

**The second level**: attained by the adoption of behavioural changes and is achieved by one or more of the following:

- By changing the culture of the organisation by the members of the senior management adopting the idea that constructive conflict is acceptable and welcomed in the organisation and that competition and challenge is required (Al-Rajhi, 2008). This point recognises that the culture of the organisation reflects the culture of the members of the organisational management;
- Changing the modes of communication by using new channels and searching for non-official channels like rumours; or by obtaining new goals; or by leaking the information (by making them unclear or withholding them) (Rollinson, 2005);

- Stimulating competition between individuals or groups, working both at the level of functional objectives or at the level of personal goals, by providing opportunities for promotion and career advancement or providing opportunities to show their abilities and individual talents and energies (Robbins and Judge, 2012);

- Bringing in people from outside the organisation or from outside the country to take advantage of their expertise and to stimulate the workers’ innovation and development. However, Robbins and Judge (2012) warn about the use of this technique and consider it as one of the most dangerous methods in stimulating conflict because it could deteriorate and cause a high degree of conflict that is difficult to control.

### 3.7 Chapter Summary

Chapters two and three addressed the first objective of this research which will help in enhancing and facilitating interpretation of the research results.

This chapter started with a discussion on the nature of interpersonal conflict and on the causal factors of IPC. Then it moved to a discussion on the development of the theoretical framework on the causal factors of IPC which were divided into four factors: *individual differences; behavioural factors* (involving: threats to status; a lack of trust; incivility, and unfair treatment); *financial factors* (as limitation of resources and facilities) and *organisational factors* (including: role ambiguity; role incompatibility; a lack of communication; contradiction of goals; work stress, and organisational change). The theoretical causal factors of IPC were helped in designing the interview questions and in interpreting the results of the study.

This chapter illustrated the two main stages of managing IPC: *conflict diagnosis* and *conflict treatment*. The methods of diagnosing IPC, the approaches of IPC
treatment when conflict exceeds an acceptable level and the approaches to stimulating IPC if conflict is less than the required level have all been addressed in this chapter. The approaches of resolving IPC were discussed and summarised into: collaboration, competition, accommodating, avoidance, and compromise approaches. Also, the potential outcomes of the approaches of resolving IPC were presented and summarised into: win-win, lose-lose, win-lose, lose-win, and no win and no lose outcomes.

Outcomes from the analysis of OC and IPC literature (chapters two and three) will help in the discussion of the research findings in chapter six. The approaches of resolving IPC and its potential outcomes will be used to enhance the recommendations and the conclusions of the study.

The next chapter considers the Libyan context in which this research fieldwork takes place.
CHAPTER FOUR
THE LIBYAN CONTEXT

4.0 Introduction

Studying interpersonal conflict (IPC) within Libyan organisations or within any other country would be deficient without reviewing and understanding the general background of the country. This is because IPC as a social phenomenon cannot be studied in isolation and account must be taken of the surrounding environment and its social, political and economical aspects. This idea is supported by Aghila (2000) who argues that employee attitudes must be studied with relation to the surrounding environment as social, political and economical forces have a great impact on individuals’ principles, values, attitudes and behaviour. Therefore, understanding these forces may help in determining and explaining the causal factors of IPC and its management in the Libyan Cement Industry.

This chapter begins with an overview of Libya and its cement industry, providing a contextual background on the geographical, political and economical factors that influence the work environment of the cement industry in Libya which is the main focus of this research.

4.1 The Geographical and Population Background

Geographically, Libya is located in the centre of North Africa with a coastline of almost two thousand kilometres. To the north, the country is bordered by the Mediterranean Sea; to the east by Egypt; to the south by Niger, Chad and Sudan, and to the west by Algeria and Tunisia (see figure 4.1). In terms of area, it covers approximately 1,775,500 square kilometres which makes it the fourth largest Arab nation in the world. It is about seven times the size of the United Kingdom. Over 90% of its land is either desert or semi-desert and the country’s climate is affected by the Mediterranean Sea to the north and the Sahara to the south. The coastal strip is affected by the Mediterranean Sea climate while the rest of the country is affected by the Saharan climate. Therefore, the weather in
the northern part of the country is usually hot in summer (June, July and August), warm and rainy in winter (December, January, February) while the southern part is very hot and dry in summer and cold and dry in winter (NAID, 2002).

Figure 4.1: Map of Libya (weltkarte.com)

According to the Libyan Mission at the United Nations (2013) Libya’s current population is 6,422,772 inhabitants and the majority (86%) of these live in urban areas. Most Libyan people are young - almost 50% are under 15 years old (Soliman, 2011), and most of the population lives in the northern part of Libya and more than 90% of this population is located in Tripoli and Benghazi (United Nations, 2013).

The religion in Libya is Islam and all Libyans are Sunni Muslims (Ibid) of the Malikite doctrine. This differs from many other Arab countries that have more than one religion and more than one doctrine (Attir and Al-Azzabi, 2004).
4.2 Historical and Political Background

The name of Libya has been attached to all of North Africa, except Egypt, in the distant past by the Greeks (Pappe, 2005). Libya has a long history as a centre of Phoenician, Carthaginian, Greek, Roman, Berber and Arab civilizations. In 1934 Italy adopted the name "Libya" for modern Libya which is a union of three historically distinct regions, namely north-western Tripolitania, north-eastern Cyrenaica or Barqa, and the more remote south-western desert region of Fezzan (Blanchard, 2012; Pappe, 2005). In the 19th century, the Ottoman Empire struggled to assert control over Libya’s coastal cities and interior. Italy invaded Libya in 1911 on the pretext of liberating the region from Ottoman control (Blanchard, 2012). Libya was an important battleground in the North Africa campaign of the Second World War and emerged from the fighting as a ward of the Allied powers and the United Nations (Ibid). On 24 December 1951, the United Kingdom of Libya became one of Africa’s first independent states (Ibid). With United Nations’ supervision and assistance, a Libyan National Constituent Assembly drafted and agreed a constitution establishing a federal system of government with the central authority vested in King Idris Al-Sanussi (1951-1969) (Ibid). Legislative authority was vested in a Prime Minister, a Council of Ministers and a bicameral legislature. The first parliamentary election was held in February 1952, one month after independence (Ibid).

In September 1969 army officers, including Muanmar Gaddafi, undertook a military coup against King Idris Al-Sanusi when the king was receiving medical treatment abroad. As a result of this coup, the monarchy’s ruling system was annulled and Libya was declared an Arab Republic. The Revolutionary Command Council (which consisted of officers who were involved with Gaddafi in the ousting of King Idris) became the supreme authority in the country. However, Gaddafi, in 1977, wanted to hold the monopoly of power so he dissolved the Revolutionary Command Council and announced the power of the people on 2 March 1977 (in the sense that the people governed themselves through People's Congresses which were established by an order from Gaddafi. But most Libyan people refused to attend these Congresses due to their frequent
disputes and the lack of relevance to what people wanted) (Jibril 2011). Following that announcement, Gaddafi then announced his resignation from the presidency (this was merely a front and was not an actual resignation). At that point the name of the state was changed from the Arab Republic to the Socialist People’s Libyan Arab Jamahiriya and the state’s constitution which had been adopted in 1951 was cancelled. Also, upon the announcement of the power of people, the state’s laws were changed in light of the perceptions and ideologies of the Third Universal Theory of Muammar Gaddafi which was formulated in the Green Book that carried slogans such as "the people are the master", "people govern themselves through the people's congresses", “partners, not employees” (Ahmad, 2013). In line with the latter slogan, Gaddafi made sure that the factory workers went to their factories and demanded to become partners and not employees, and thus all workers in Libyan factories owned 10% of the factories’ shares. This also applies to the cement plants featured in the cases studied.

Jibril (2011) described the experience undergone since the announcement of the power of people by Gaddafi “as a mixture of communist primitive ideas with chaotic touches”. Also, the time during the reign of Gaddafi (1969 - 2011) was marked by hostility to the West. He instilled in the people’s minds, through his slogans that covered all the towns and villages in Libya, through the imposition of teaching from his Green Book and through his ideology in all stages of education in Libya, a fear of strangers and an avoidance of intervention by Western powers in the country’s affairs. Therefore, in the mid-1970s, he started to forcefully evacuate all the foreign military bases from the country (the U.S. air bases which were in Tripoli and the English military base that existed in Tobruk). He nationalized Libyan industries and enterprises in general, and the oil industries and enterprises in particular, to prevent, as he claimed, the intervention of Western powers in the country’s affairs (Ahmed, 2012).

As a result of the policy of hostility that Gaddafi pursued against the West, economic sanctions were imposed and flights to, and from, Libya were banned by the United Nations in April 1996 (Falola et al., 2012). Consequently, the
Libyan people lived in isolation from the international community until September 2003 when the international sanctions on Libya were lifted after Gaddafi abandoned the production of conventional weapons. In May 2006, Libya was removed from the United States’ list of terrorist states and from that point Gaddafi allowed foreign companies to invest in Libya providing that they participated, or merged, with a partner or a Libyan organisation that was usually under Libyan governmental control. However, this happened without updating the Libyan laws relating to economic investment within the country and thus caused many problems for Libyan and non-Libyan investor companies equally, as well as the rise of the phenomenon of organizational conflict in all its forms in these companies.

The instability in the political vision of the Libyan state has had a significant impact on organisations working in this environment, where the merger of some Libyan companies with other foreign companies occurred rapidly and without the knowledge of the workers who owned 10% of the company’s shares. At the same time, such actions were against Gaddafi’s ideas and slogans which he had been widely promoting for three long decades in his Third Universal Theory (which was imposed on the education curricula). One of the participants of the study confirmed this fact saying: “We did not know that our company was merged with a foreign partner until we saw foreign members in the corridors and offices of the company; we were astounded because that was completely against the thoughts and slogans of Gaddafi”, SM-3 (for more details, see Chapter 6).

Ahmad (2013) corroborates that the regime of Gaddafi (1969 - 2011) was dominated by instability in the management of institutions and organisations of the state, both in their administration and legal systems. This was due to the way of choosing the officials in these units; they were selected based on their loyalty and obedience to the top of the pyramid of the state (Muammar Gaddafi and his revolutionary forces). Therefore, the criteria for selection were not based on scientific qualifications, potential ideas or on experience in the field of development and management that the country desperately needed as a
developing country which depends almost entirely on revenues from oil imports and exports.

On 15 February 2011 Libya was affected by the ‘winds’ of the Arab Spring (a revolutionary wave of political demonstrations and protests occurring in the Arab world that demanded the replacement of dictatorial governments which had stayed in authority for more than twenty years with elected governments put in place by real elections) that originated in Tunisia on 18 December 2010, then quickly spread to Egypt and then to Libya. On 27 February 2011 the formation of the National Transitional Council (NTC) was announced in the city of Benghazi with the purpose of acting as the "political face of the February Revolution". The NTC issued a Constitutional Declaration in August 2011 in which it set up a road-map for the transition of the country to a constitutional democracy. The NTC governed Libya for a period of ten months after the end of the 2011 Libyan civil war, holding elections to a General National Congress (GNC) on 7 July 2012, and handed the power to the GNC on 8 August 2012.

Currently, Libya is ruled by the General National Congress (GNC). The Congress is composed of 200 members who were elected by the people on 7 July 2012 in the first national elections in the country for nearly 50 years. Now this interim government’s mission is to facilitate the state’s business on a temporary basis and it does not have the right to amend or cancel any laws or regulations until after the preparation of the country's constitution and after the election of a permanent government which is expected to be elected in mid-December 2014 (NTC, 2013). According to the Temporary Constitutional Declaration the primary responsibility of the GNC lies in the establishment of the Constitution of the State within 8 months from its first day in office (Ibid). In the light of the current situation of the state, the form of the state is not yet determined. The system of governance is not yet known, whether it will be centralized or decentralized, or a mixture of both of them, and whether the system will return to the federal system or to a system of provinces. Consequently, the name of the country is just Libya at the moment and no one knows yet whether Libya will be the Libyan Republic or the Kingdom of Libya.
or something else by the year 2014. The data collection for this study was completed six weeks before the winds of the Arab Spring blew across Libya.

4.3 Economical Background

Oil and natural gas, gypsum and iron are the most important natural resources in Libya. Oil and natural gas are the main sources of Libyan income (gasandoil.com, 2007). According to the U.S. Department of State, oil accounts for approximately 95 percent of Libya’s export earnings, 75 percent of its government receipts and 25 percent of its gross domestic product (EIA, 2013). The Energy Information Administration (EIA, 2013) stated that Libya had total proven oil reserves of 47.1 billion barrels as of January 2012, the largest endowment in Africa, and among the ten largest globally. Close to 80 percent of Libya’s proven oil reserves are located in the eastern Sirte basin which also accounts for most of the country’s oil output. Libyan oil is generally light (high API gravity) and sweet (low sulphur content).

In February 2011, the Libyan economy was affected by the Libyan people's uprising against the Gaddafi regime which took the form of armed revolt. Libyan oil and natural gas exports suffered a near-total disruption in the months of intense fighting that followed and the minimal and sporadic oil production that did occur was mostly consumed domestically. However, Libyan oil production began its resurgence in September 2011 following the deposition of the Gaddafi regime and the gradual consolidation of control over most parts of the country by the Transitional National Council (TNC). Crude oil production was estimated to have recovered by up to at least 1.4 million barrels per day by May 2012; the pace of the sector’s recovery exceeded the expectations of most industry analysts (EIA, 2013).

In response to international pressure and, in conjunction with the lifting of the UN sanctions in September 2003, Libya adopted economic reforms, especially looking at increasing the potential of the oil sector. Currently, Libya is working towards transforming its socialist-oriented economy to a more market-based model through applying for WTO membership, reducing subsidies, and implementing a privatisation strategy (CIA, 2013). Thus, to reduce the country’s
heavy dependence on oil, recently, Libyan economic policy has focused on developing non-oil manufacturing such as the cement, iron and steel industries and others (freegk.com, 2013).

During the rule of the Gaddafi regime (the field study data were collected in this period) it was very difficult to separate an assessment of Libya's economy from Libya's political ideology (Ahmad, 2013; Shihub, 2009). The central authority interventions influenced day-to-day operations in terms of changes in organisational structure, location or site, responsibilities or authorised budgets, employment conditions and personnel and management appointments (Ibid). The central authorities' interventions led to a state of instability that caused a reduction in productivity and raised the cost of the product (Shihub, 2009). The instability of the organisational system caused continual changes in government and institutions’ laws, rules and regulations which, in turn, affected the instability of Libyan organisations that controlled completely, or in part, the state units (Ahmad, 2013) such as cement, iron and steel and others.

Amongst other challenges facing the industrial sector in Libya are the following:

• Libyan industrial organisations are mostly managed by engineer leaders (Hudana, 2004). Most of these engineers are considered administratively unsuitable to solve problems pertaining to workers in these organisations, and are unqualified in the field of Business Administration and Marketing (Ibid). This has resulted in managerial and marketing failures that were directly covered up by the state’s intervention through supporting them financially and administratively (Ibid);

• The dependency of the whole industrial sector on the Ministry of Industry deprived the organisations in this sector of their freedom and made the departments of those organisations just devices that facilitated matters but did not have the freedom to act concerning their own financial resources (such as granting higher salaries for employees based on their performance, etc.) (Hudana, 2004). Also, these organisations could not direct their own human resources; everything required accreditation from the Minister of Industry
Sabow (2011) stated that most Libyan employees in all organisations suffered from dissatisfaction with the salary that they earned, according to Law 15 for the year 1981, as this law does not take into account economic and social changes and the time value of money. The current government is an interim government and cannot cancel this law until after the establishment of the state constitution (EIA, 2013) and the election of a permanent government that is expected to take place by the end of 2014.

4.4 Social and Cultural Structure in Libya

The Islamic traditional mode of living was the most common way of life in Libya during the reign of King Idris who ruled Libya after independence from British interim rule until the military coup by Gaddafi in September 1969. Such a traditional life, religious and tribal-based, as well as in the way it affected the manner in which policies were undertaken by the government. But this old order and way of life could not continue. The diverse pressures that were brought to bear during the period of colonialism and occupation impinge on the tribal and village social structures. As the countryside was undergoing economic changes, rural people started to adopt modern lifestyles. Sequentially, rules and values started to change as materialism and wealth prevailed (Barakat, 1993). Nevertheless, everyday life was more conservative when compared to other countries in the Arab World despite the government’s continuous efforts to alter Libyan society after the discovery of oil, when revolutionary ideas were propagated and spread in the period following the 1969 revolution (Obeidi, 2001; El-Fathaly and Palmer, 1980). Jodie and Gorrill (2013) reiterate this point when they argue that, in Libya as a Muslim state, the heritage of Islamic belief is deeply rooted in the character of the Libyan people and, for the most part, is an integral part of their daily life. Islamic rule pervades Libyan customs and culture, providing the framework for the behaviour of individuals in both social and business contexts. Therefore, they advise companies who plan to invest in Libya to respect this heritage and culture, particularly in the area of dress, language and behaviour.
The tribal system is still strong in Libyan society despite the government’s efforts to weaken its role (Obeidi, 2001). In the late 1990s the government came to realise the importance of such a system as a support to its policies and a sort of co-operation was agreed between the government and the tribes concerning the implementation of certain programmes that did not negatively impact upon the role of the tribes. On this point, it should be noted that loyalty to the family and to the tribe is deeply rooted in Libya (Ahmad, 2013). In the same context, Elmogla (2009) and Agnaia (1997) state that loyalty to the family and tribe (as well as regionalism) often outweighs loyalty to the organisation and, sometimes, the law. In addition, family contacts and personal relationships in Libya play a greater part in gaining business and career promotion than practical experience or academic qualifications (Elmogla, 2009). These relationships can be expected to lead to conflictual relationships between employees because of the sense of unfair treatment. Alorafi (2010) confirmed that the culture of personal relationships and family contacts are key factors in the spread of nepotism or favouritism and corruption in Libyan organisations.

4.5 Overview of the Libyan Cement Industry

The developmental activities of a country often follow a continuous process and lead to a natural aspiration to achieve independency in the production of essential raw materials (Elbah, 2005; Libyan Industrial Research Centre Report, 1990).

The manufacture of cement is a basic industry. The establishment of cement manufacturing units is one of the initial steps taken in producing a modern industrialised economy (Elbah 2005; Libyan Industrial Research Centre Report, 1992). The cement industry is one of the important industries in Libya as a result of the local availability of the raw materials required for cement production and the high demand for this product as an outcome of the burgeoning construction industry and the ongoing rapid development in the country (Hokoma et al., 2008).

In the Libyan Cement Industry (LCI) there are two main companies: The Ahlia Cement Company (ACC) and the Libyan Cement Company (LCC). These two
organisations are discussed in detail later in this chapter.

The first cement works came into being in 1965, at Al Khums 150 km east of Tripoli with one cement plant. From then onwards, the industry has grown steadily and, at present, has eight cement plants with a capacity of 9.7 million tonnes a year (GCM, 2013). Furthermore, the country is also planning a large increase in cement production in order to meet the rising demand in the internal market and for export to the global market as a part of the country’s collaboration with neighbouring countries (Elbah 2005; Libyan Annual Report, 1998).

4.6 The Libyan Cement Raw Materials

Libya is exceptionally rich in the raw materials needed for cement production. There has been a full investigation of the sites where such raw materials are available and at many of these locations either cement manufactures have been established or are under construction. Several sites of potential importance have been located in the course of a systematic geological mapping and are to be taken up for detailed investigation in periods in the future. Furthermore, most of the raw materials are available within the country in plentiful quantities and spread widely in forms, which are quite easy to utilize (Elbah, 2005).

The conventional raw materials for cement production are limestone, clay and fuel such as coal or oil. Usually a cement plant is located near the main raw material for cement manufacture i.e. limestone. This is in order to reduce the cost of the transportation of limestone to the minimum as the economics are based on transport of about 1.6 tonnes of limestone as against one tonne of finished cement (Elbah, 2005; Libyan Industrial Research Centre Reports, 1977, 1980, 1983).

In Libya, rich quantities of marine limestone and marl have been reported mainly in the northern half of the country, while the southern half of the country is yet to be explored geologically in any form (Elbah, 2005).

After limestone, clay consumption accounts for about 20% of the mix. Most of
the cement plants, especially the large capacity plants, have their own clay mines. Clay characteristically occurs somewhere close by places where limestone is found or is found associated with limestone as inter-banding, lenses or pockets (Elbah, 2005; Libyan Industrial Research Centre Report, 1970).

Among the other conventional raw materials, clay and ferruginous sandstone are, in general, found existing close to main limestone sources whereas Libyan iron ore has to be procured from the only known single source (Wadi Shari). Bauxite is found in economic quantities. A lack of (flowing or ground) water resources has imposed the adoption of dry process cement manufacture (Elbah, 2005; Libyan Industrial Research Centre Report, 1983).

The existing cement plants use oil as the fuel and this usage will continue into the near future based upon national supply of this resource (ACC, 2013; JLCC, 2013).

The situation with regard to cement’s raw materials within the country appears extremely positive with plenty of scope for advantageous exploitation of the country’s resources in the future.

4.7 Cement Companies in Libya
The Libyan cement industry has two companies: the Ahlia Cement Company (ACC) and the Libyan Cement Company (LCC).

4.7.1 The Ahlia Cement Company (ACC)
ACC was established in 1965 as a public organisation under the name "Cement and Construction Materials Company". In 1988 it was renamed the Arabian Cement Company. In 2005 it moved from the public sector to the private sector as a share holding company under the name ‘Ahlia Cement Company’. It has six plants: El-Mergeb (in Al-Komes); Suk Elkamis (in Al-Komes); Lebda (in Lebda); Zliten (in Zliten); a bags plant (in Al-Komes) and Alklata (in Tripoli). All of these are located in the western region of Libya (ACC, 2011).
4.7.2 The Libyan Cement Company (LCC)

The Libyan Cement Company (LCC) established as a private company in 1972 with one plant. In 1977 the Libyan government nationalised the LCC and it became a public company. The LCC changed to a private company in 2005 as a share holding company owned by the Economic Social Development Fund (ESDF which is a unit of the Libyan Government) 90% of LCC shares and the remaining shares 10% are owned by the employees (LCC, 2008). This was according to Gaddafi’s instruction which was guaranteed in his ‘Green Book’ under the slogan of ‘Employees are partners not earners’. Based on this slogan all Libyan employees who worked in an industry sector had a right to 10% of their companies’ shares. Since 2008 the Economic Social Development Fund established a new joint company with a foreign investor named the Joint Libyan Cement Company (JLCC). The foreign investor owned 56% of the LCC shares and the rest of the shares to ESDF (JLCC, 2013). The JLCC took over the 90% of LCC from ESDF in order to support the development of the LCI (Ibid).

Recently the LCC has four plants. The Benghazi plant produces 800,000 tonnes of cement a year. The Hawari plant, which was established in 1978, produces a total of 1,000,000 tonnes of cement per year. The third factory is the El-Fatayah factory which was established in 1982 with two production lines that have a 1,000,000 tonnes’ production capacity of ordinary Portland cement each year. The LCC also has a factory that produces cement packaging which was established in 1975 in Benghazi city and produces 200,000 bags per day (LCC, 2008).

4.8 The Future of the Cement Industry in Libya

Since Libya is a developing country with considerable revenue, it is able to continue its growth. This includes improvement in, and demand for, cement production. The demand for cement will not stay, therefore, at the same level. In order to meet this ever-growing demand, it is necessary to increase domestic production (Elbah 2005; Libyan Audit Organisation Report, 1985)

From the experience of the past decades, it is clear that there has been a phenomenal and large increase in the economic developmental activities of the
country. This means that several sites must be kept ready for exploitation as, and when, the cement capacity is required to be increased (Ibid). Therefore, in 2008, the Libyan Government encouraged the Libyan Cement Company to join with a foreign investor for the purpose of developing the company technically and administratively. Additionally, the Ahlia Cement Company (ACC) has been invested in by the Economic Social Development Fund and the Libyan Investment Company.

After the implementation of certain investments and changes in the cement industry by the Libyan government, as stated above, the production capacity of the existing plants is expected to increase and the LCC is working on investing in new and additional lines by the end of 2014. At that time the total capacity of JLCC will be around 6 million tonnes of cement (JLCC, 2013).

Libya has been physically affected by the fighting in the Libyan revolution. Thousands of buildings have been affected directly by the fighting. In order to reconstruct these buildings, construction companies need cement by default in order to rebuild.

A JLCC press release produced in 2012 (libyaninvestment.com 2012) stated that the company would play a "huge" role in the reconstruction of Libya by providing construction companies with the actual cement to physically rebuild Libya. The Joint Libyan Cement Company provides a positive image towards European investors. Not only will the JLCC be able to provide assistance in the reconstruction of damaged buildings; it will also encourage incoming foreign companies. The JLCC's presence in Libya plays a key role in proving to the international community that investing in Libya can be successful. The company's connections with a foreign investor will help promote Libya as being an investor friendly environment (Ibid).

This positive image will help attract important key companies to come and help rebuild Libya (Ibid). Seeing the success of JLCC will encourage these key companies to come and do business in Libya. Thus, the JLCC is assisting in
opening the door to a better Libya, hopefully leading to a better, brighter future for the people of Libya (Ibid).

4.9 Chapter Summary

In this chapter an overview of the Libyan context has been presented in order to create an understanding of the environment where the research took place. Information has been provided about Libya’s geography and economic background. The social structure in Libya, the raw materials available, and the cement companies in Libya (the Libyan Cement Company and the Ahlia Cement Company) were discussed. Finally, attention has been drawn to the future of this industry in Libya. The next chapter will discuss the methodology adopted to achieve the aim and objectives of this research.
CHAPTER FIVE
RESEARCH METHODOLOGY

5.0 Introduction
The previous four chapters provided a comprehensive literature review and discussion in order to address the research issues of this study: OC, IPC and managing IPC and the Libyan context of this research. This chapter explains the overall methodology and procedures applied to carry out this research. The explanation includes: the research type: the research philosophy; research reasoning; the research approach; strategy; data collection, and data analysis.

Research methodology refers to the overall approach to the research process that starts with the theoretical foundation to the collection, and finally to the analysis of, the data (Collis and Hussey 2009). Some researchers such as Chandler (2006) and Aouad (2013) argue that the research methodology is an essential part of any empirical research because it helps people to increase their knowledge in a systematic way. Saunders et al. (2012: 5) define research methodology as ‘Something that people undertake in order to find out things in a systematic way, thereby increasing their knowledge’. It describes the ‘how’ component of research, how objectives are achieved and how answers are provided to research questions (Pathirage, 2007)

5.1 Research type
Research can be classified as exploratory, descriptive or analytical/explanatory research (Saunders et al., 2012). Exploratory research “aims to seek new insights into phenomena, to ask questions, and to assess the phenomena in a new light” (Ibid: 592). Collis and Hussey (2009) refer to exploratory research as usually conducted on a research problem where there has been few or no earlier studies. Descriptive research is research that describes phenomena as they exist. Therefore, descriptive research seeks to find out what is happening and to obtain information on the characteristics of a particular problem. Analytical or explanatory research is a continuation of descriptive research; it goes beyond
merely describing characteristics to analysing and explaining ‘why’ or ‘how’ the phenomenon is happening (Ibid).

On the other hand, research can be classified based on whether the study is applied research or pure research. Applied research is undertaken when the researcher tries to solve a particular problem whereas pure or basic research is undertaken largely in universities and mostly as a result of an academic agenda, for example, trying to add some contribution to knowledge (Saunders et al., 2012).

According to the above observations, this inquiry is pure research that will contribute to knowledge and also an exploratory and analytical piece of applied research at the same time (to solve a particular problem). The researcher intends, from this study, to acquire an in-depth understanding of the IPC in the Libyan Cement Industry.

5.2 Research philosophy

Sutrisna (2011) explained that a research methodology involves three main levels which are: philosophy; reasoning; and the data level. This section and the next two sections will illustrate the main research methodology levels and the research positioning under these levels.

Research philosophy reflects the way the researcher thinks about the development of knowledge, which in turn affects the way the research is done (Saunders et al., 2012). Burke (2007) argues that research philosophy helps others to quickly understand the context. However, there is no definite rule of which philosophy to select when doing research. It all depends on the nature and scope of the thesis, research aim, objectives, research questions or hypotheses, sources of data collection and limitations (Saunders et al., 2012; Yin, 2009; Collis and Hussey, 2009).
In the literature of research methodology, there are two main philosophies: **positivism** and **interpretivism**. Each of them is formed from five philosophical assumptions which are: ontological; epistemological; axiological; methodological; and rhetorical assumptions. Collis and Hussey (2009) provide a summarised description of the philosophical assumptions that underpin the two main philosophies, cited from Creswell (1994). Table 5.1 is adapted from their work.
They also explain that the first three assumptions are interrelated while the final two assumptions are complementary (at the same time they are necessary). In the forthcoming paragraphs, the first three main assumptions will, therefore, be defined in some detail which will help in determining the philosophy of the research.

The ontological assumption is concerned with the nature of reality (of being). In other words, it is a general set of assumptions about what is reality (knowledge) (Aouad, 2013):

- Positivists believe that reality is objective, structured and external to the researcher, as in the field of natural sciences (Collis and Hussey, 2009). Therefore, they believe that there is only one reality experienced by us all (Sutrisna, 2009).

- On the other hand, interpretivists believe that the world holds an unknowable reality, as in the field of social sciences where each person has their own sense of reality (Aouad, 2013; Collis and Hussey, 2009). Hassard (1993) confirms that the best way to understand the social world is from the point of view of the investigated participants. Therefore, interpretivists believe that there are multiple realities (Collis and Hussey, 2009); that because reality is socially constructed (Ticehurst and Veal, 2000) it means that reality is constructed by people differently (Sutrisna, 2009).

The epistemological assumption is a general set of assumptions about how one acquires and accepts knowledge (reality) about the world (Sexton, 2008). It looks at the theory of knowledge, especially with regard to its methods, ‘validation’ and the possible ways of gaining knowledge (Sutrisna, 2009). In addition, this assumption involves an examination of the relationship between the researcher and that which is researched (Collis and Hussey, 2009; Sutrisna, 2009).

- Positivists advocate the application of methods of natural science to the study of reality and beyond, as the ‘truth’ is out there to be discovered (by the researcher) (Sutrisna, 2009). Positivism relies on a statistical
evaluation in logic of the phenomena being investigated (Hughes 1995; Blaikie 1993). Positivists, therefore, prefer the use of a statistical analysis of data collected by means of large-scale empirical surveys and controlled experiments and formulating hypotheses and then testing them (Amaratunga et al., 2002; Gummesson, 2000). According to Collis and Hussey (2009), positivists try to maintain an independent and objective stance. Thus, positivists believe that the reality can be observed, studied and even ‘modelled’ (Sutrisna, 2009). These assumptions are commonly found in research studies in the natural sciences.

- In contrast, interpretivists focus on the meaning, rather than the measurement, of social reality because they concentrate on understanding the phenomena (reality) in depth to find answers to questions such as what, why and how (Ibid). Moreover, under the philosophy of interpretivism, the researcher is a part of what is being researched and is not independent of it (Collis and Hussey, 2009; Sutrisna, 2009). Therefore, interpretivists believe that reality can only be interpreted (Sutrisna, 2009). Additionally, Smith (1983) states that, in interpretive research, beliefs determine what should count as facts while, in positivist research, facts act to constrain our beliefs. These assumptions are commonly found in the fields that study the social sciences which are concerned with the activities and behaviour of people (Collis and Hussey, 2009). Also, the process of inquiry into the social sciences can influence both the researchers and those participating in the research (Ibid).

**The axiological assumption** is concerned with the role of values:

- In positivist research, the researcher acknowledges that research is value-free and unbiased because positivists consider that they are independent from what they are researching (Collis and Hussey, 2009).

- On the other hand, interpretivists believe that the process of research is value laden which means that the researcher is involved with that which is being researched (Collis and Hussey, 2009).
According to the main purpose of this study (which is to identify the factors causing IPC in the Libyan cement industry from the perspective of those who work in the industry), the scope of this study lies in the field of social sciences and the nature of this study is rooted in the concept of real-world experience; thus, the most appropriate research philosophy for this work is interpretivism, whereby the study takes the ontological assumption that reality is socially constructed, the epistemological assumption that knowledge is gathered by examining the views of the people in the Libyan cement industry and the axiological assumption that the research is value laden, therefore biases may be presented by the participants and/or the researcher (where the researcher is involved with that which is being researched). Consequently, in interpretive research the researcher needs to bear in mind how to avoid the biases.

The methodological assumption that is concerned with the process of research will be discussed in the next section. The style of writing in this thesis is a formal style which is acceptable to the supervisor as the rhetorical assumption of the philosophy. This is supported by Collis and Hussey (2009) who argue that the rhetorical assumption should be complementary to the philosophy, but also that the thesis must be written in a style that is acceptable to supervisors and examiners.

5.3 Reasoning of the Research

The reasoning of the research refers to the logic of the research, the role of the existing body of knowledge as gathered in the literature study, and the way researchers utilise the data collection and subsequent data analysis (Sutrisna, 2009). The reasoning of the research is influenced by the research aim, objectives, philosophy and the research processes. There are two general approaches to the reasoning of the research in the literature, namely inductive and deductive reasoning. Table 5.2 compares the deductive and inductive reasoning. Most scholars agree that deductive research is a theory testing process which starts with deducting a theory or hypothesis from the literature and then seeking to observe whether the theory applies to specific instances.
Table 5.2: The Major differences between deductive and inductive reasoning (Adapted from Pathirage, et al. 2008)

<table>
<thead>
<tr>
<th>Deduction</th>
<th>Induction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving from theory to data</td>
<td>Select samples of sufficient size to generalise conclusions</td>
</tr>
<tr>
<td>Common with natural sciences</td>
<td>Common with social sciences</td>
</tr>
<tr>
<td>A highly structured approach</td>
<td>Flexible structure to permit changes</td>
</tr>
<tr>
<td>Explain causal relationships between variables</td>
<td>Understanding of meanings humans attach to events</td>
</tr>
<tr>
<td>Select samples of sufficient size to generalise conclusions</td>
<td>Less concern with the need to generalise</td>
</tr>
</tbody>
</table>

On the other hand, inductive reasoning is generally an inquiry to understand a social or human problem from multiple perspectives (Yin, 1994). It is a theory building process (Hyde, 2000) and is used when a researcher collects data and a theory emerges as a result of the data analysis (Saunders et al., 2009).

Inductive reasoning is theory building and goes from the specific to the general whilst deductive reasoning is theory testing and goes from the general to the specific. The deductive reasoning approach to research has become synonymous with positivism, whilst inductive reasoning is linked with interpretivism (Saunders et al., 2012; Pathirage et al., 2008; Gill and Johnson, 2002).

The main difference between deductive and inductive research lies in the use of the current body of the knowledge and the role of each style of research’s data collection (Sutrisna, 2009). As mentioned previously, deductive reasoning usually takes place when the study begins by developing a hypothesis/hypotheses from the literature and ends with acceptance or rejection of the hypothesis/hypotheses, while inductive reasoning takes place when the research begins with gathering information (e.g., interviews, observations) from the field study and ends with developing a theory.
The nature of this study is theory building rather than theory testing. The study started with reviewing the literature to understand the causal factors of IPC from the theoretical perspective not with testing the causal factors of IPC in a field study. In fact, most academic research has to start with a literature review in order to understand a phenomenon from the theoretical side and then deal with it from the empirical side. Therefore, the logic/reasoning of this research is mainly inductive logic because the research philosophy is interpretivism as well as the nature of the study being theory building not theory testing.

5.4 Research Approach

Positivism and interpretivism philosophies are represented by two main types of research approaches in social science, namely quantitative and qualitative (Easterby-Smith et al., 2008; Yin, 2003; Hussey and Hussey, 1997). Table 5.3 summarises the main differences between the qualitative and quantitative methods.

A quantitative approach is often associated with the positivism philosophy which concerns counts and the measures of things (Collis and Hussey, 2003; 2009; Sutrisna, 2009; Easterby-Smith et al., 2008). Saunders et al. (2012) demonstrate that quantitative research is based on meanings derived from numbers, the collection of numerical results and standardised data and the analysis is conducted through the use of diagrams and statistics. Moreover, quantitative research is concerned with questions such as: How much? How often? How many? (Gummesson, 2000).

On the other hand, qualitative research usually emphasises words rather than quantification in the collection and analysis of data (Bryman, 2007). This perception is supported by Denzin and Lincoln (1998) who state that the concept of ‘qualitative’ implies an emphasis on processes and meanings, rather than on numbers. Qualitative research collects the results in non-standardised data which requires classification into categories and analysis conducted through the use of conceptualisation (Saunders et al., 2012).
Table 5.3: The main differences between qualitative and quantitative methods
(Adopted from Ghauri and Gronhaug, 2005)

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis on testing and verification</td>
<td>Emphasis on understanding</td>
</tr>
<tr>
<td>Focus on facts and/or reasons for social events</td>
<td>Focus on understanding from respondent’s/informant’s point of view</td>
</tr>
<tr>
<td>Logical and critical approach</td>
<td>Interpretation and rational approach</td>
</tr>
<tr>
<td>Controlled measurement</td>
<td>Observations and measurements in natural settings</td>
</tr>
<tr>
<td>Objective ‘outsider view’, distant from data</td>
<td>Subjective ‘insider view’ and closeness to data</td>
</tr>
<tr>
<td>Hypothetical-deductive; focus on hypothesis testing</td>
<td>Explorative orientation</td>
</tr>
<tr>
<td>Result oriented</td>
<td>Process oriented</td>
</tr>
<tr>
<td>Particularistic and analytical</td>
<td>Holistic perspective</td>
</tr>
<tr>
<td>Generalization by population membership</td>
<td>Generalization by comparison of properties and contexts of individual organisms</td>
</tr>
</tbody>
</table>

Thus, a qualitative method is more constructive and is reflective of perceptions in order to gain an understanding of social and human activities (Hussey and Hussey, 1997). Therefore, Sutrisna (2009) and Easterby-Smith et al. (2008) confirm that a qualitative method emerges from interpretivism and it is based on the assumption that there is no singular objective reality. Furthermore, Strauss and Corbin (1998) state that the strengths of such qualitative methods lie mainly in their success in ascertaining deeper underlying meanings and an explanation of the phenomenon. Several scholars in the scope of social research methods (e.g. Easterby-Smith et al., 2008; Berg, 2006; Ghauri and Gronhaug, 2005; Nord and Tucrer, 1987) have often suggested that a qualitative method is more suitable than a quantitative one for researching into an event or a social process which is difficult to meaningfully express (e.g. people’s experiences or behaviours).

Hussey & Hussey (1997) state that the main reasons for using qualitative methods relate to the nature of the research as well as the research philosophy. The nature of this research is theory building rather than theory testing and it intends to make generalisations to theory rather than about a population. In addition, the research
philosophy is interpretivism and it holds the assumption that reality is constructed by the participants in this study. Moreover, this research focuses on meaning rather than numbers and is interested in a deep understanding of the factors of IPC in the cement industry in Libya. Hence, qualitative methods are the most suitable methods to be used in this study.

Figure 5.1: The research positioning under the three main levels of research methodology (the idea adopted from Sutrisna, 2011)

Figure 5.1 shows that the current research relies on interpretivism for the philosophy level because the scope of the research of IPC is part of social sciences and can specifically be classed under organisational behaviour. The main research reasoning is inductive logic and the appropriate approach for collecting the data is a qualitative approach.

5.5 Research Strategy
Saunders et al. (2012) define research strategy as a plan of how to answer research questions in order to satisfy the research objectives. Therefore, the research
strategy is the methodological link between the research philosophy and the method of collecting and analysing the data. This concept is supported by Denzin and Lincoln (2005) who argue that research strategy can be considered as a methodological link between the philosophy of the research and the subsequent choice of methods to collect and analyse the data. Yin (2009) lists five different types of research strategies, as summarised in Table 5.4.

Yin (2009) identifies three conditions which can be used to select the appropriate strategy for research:

- The type of research question;
- The control the researcher has over behavioural events;
- The degree of focus on contemporary, as opposed to historical, events.

Table 5.4: Relevant situations for different strategies (Yin, 2009: 8)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Form of Research Question</th>
<th>Requires Control of Behavioural Events?</th>
<th>Focus on Contemporary Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>How, Why?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey</td>
<td>Who, What, Where, How many, How much?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Archival analysis</td>
<td>Who, What, Where, How many, How much?</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History</td>
<td>How, Why?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Case study</td>
<td>How, Why?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Yin (2003; 2009) indicates that the case study strategy is the most appropriate strategy when ‘how’ or ‘why’ questions are being posed. This allows the researcher to determine not only what happened but also how it happened or why it happened. He also recommends a case study strategy when the researcher has little control over events and when the focus is on contemporary events. Yin
defines a case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. In addition, many researchers such as Saunders et al. (2009); Amaratunga et al. (2002) and Bell (1999) confirm that the case study strategy is appropriate if the researcher wishes to gain rich descriptions and a deep understanding of the context. Furthermore, the case study strategy is a worthwhile way of exploring existing theory and will enable the researcher to delve into real life which can provide powerful insights (Velde et al., 2004; Amaratunga, et al., 2002). Moreover, one of the strengths of the case study strategy is that it allows the researcher to use a variety of sources and a variety of types of data as part of the investigation (Denscombe, 2003). Also, the case study is the preferred strategy for research studies which have a qualitative orientation (Brotherton, 1999).

Based on the above discussion, the case study strategy has been adopted for this research as a result of the fact that it is the most appropriate research strategy and in order to gain a depth of understanding of the information necessary to investigate and identify the factors of IPC in the Libyan cement industry. The research seeks to answer what and why questions relating to the research problem; the event also is contemporary and the researcher has no control over the phenomenon.

5.6 Single Case or Multiple Cases

A case study can be conducted in one organisation (a single case study) or in more than one organisation (multiple case studies). Yin (2009) stresses that the single case studies is an appropriate strategy to use when the case represents an extreme or unique case. Voss et al. (2002) believe that, although a single case study offers a greater depth of understanding, it has limitations on the generalisability of the conclusions drawn. Yin (2009) argues that researchers who prefer to adopt a single case study as a research strategy needs to have a strong justification for this choice. However, Yin (2009) and Lee (1992) observe that multiple case studies are more common and are generally used to replicate findings or support theoretical generalisations. Indeed, multiple case study research increases external validity and helps to protect against observer bias (Voss et al., 2002; Leavy,
As a result of these considerations, it was decided that the appropriate research design for the present study is multiple case studies replicating the same phenomena under different contextual conditions.

Accordingly:

- The main purpose of the study is to identify the factors causing IPC from the point of view of the employees in the Libyan Cement Industry;
- The LCI involves two main companies: the LCC and the ACC (see section 1.1.2);
- It should be noted that the Libyan cement industry is of immense importance to the Libyan economy (see section 1.2.2).

Both companies in the LCI (the ACC and the LCC) have been adopted as case studies for the ongoing research.

5.7 Unit of Analysis

One of the most important elements in research design is defining distinctly the unit of analysis and ensuring that the appropriate unit of analysis is correlated to the specified research questions (Yin 2009; 2003). The unit of analysis refers to what or who is being investigated and it could be individuals, groups, organisations, industries, countries, decisions, programmes, events or other subjects (Yin, 2009; Cavana et al., 2001). Sekaran (1984: 106) argues that the unit of analysis refers to ‘the level of aggregation of the data during subsequent analysis’.

The multiple case study strategy has two types of design; holistic or multiple (embedded) case studies. Multiple holistic case studies involve a single unit of analysis while multiple embedded case studies involves multiple units of analysis (Yin, 2009).
Table 5.5: The units of analysis

<table>
<thead>
<tr>
<th>Hierarchical level</th>
<th>Identification details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management (TM)</td>
<td>Senior managers and deputy managers</td>
</tr>
<tr>
<td>Middle management (MM)</td>
<td>Heads of plants</td>
</tr>
<tr>
<td>Shop floor management (SM)</td>
<td>Heads of departments, units and Employees’ Supervisors</td>
</tr>
<tr>
<td>Workers (WOR)</td>
<td>Engineers, technicians and ordinary workers who do not have a leading role in management of the company</td>
</tr>
</tbody>
</table>

In this study, multiple embedded case studies (multiple units of analysis) have been selected according to the research aim and questions. The units of analysis of the study involve multiple realities at: top management, the middle and shop floor management levels and ordinary workers; all of which could provide data to enrich the findings. Details on the four levels of respondents (the units of analysis) are given in Table 5.5.

5.8 Data Collection methods

Data within a case study can be collected from secondary or primary sources or from both of them. In this study, both were used. ‘Secondary data are information collected by others for purposes that can be different from ours’ (Ghauri and Gronhaug, 2005: 91). Secondary and primary data are useful to better understand and explain the research problem. Therefore, in most research, researchers need to begin with a literature review: namely, looking at earlier studies on and around the topic of study (Ghauri and Gronhaug, 2005; Churchill, 1999). Secondary data include books, journal articles and online data sources, for example, the web pages of organisations and governments and catalogues. Primary data is data collected specifically for the project being undertaken and is more consistent with the research questions and research objectives (Saunders et al., 2012).
Table 5.6: The strengths and weaknesses of six sources of data collection (Yin, 2009: 102)

<table>
<thead>
<tr>
<th>Source of evidence</th>
<th>Strengths</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>Stable: Can be reviewed repeatedly Unobtrusive: not created as a result of the case study Exact: contains exact names, references and details</td>
<td>Retrievability: can be low Biased selectivity, if collection is incomplete Reporting bias: reflects bias of the author Access: may be deliberately blocked</td>
</tr>
<tr>
<td>Archival Records</td>
<td>Same as above Precise and quantitative</td>
<td>Same as above accessibility may be limited for privacy reasons</td>
</tr>
<tr>
<td>Interviews</td>
<td>Targeted: focuses directly on case studies Insightful: provides perceived causal inferences</td>
<td>Bias due to poorly constructed questions Response bias Inaccuracies: interviewees say what they think interviewer wants to hear</td>
</tr>
<tr>
<td>Direct observation</td>
<td>Reality: covers events in real time Contextual: covers context of event</td>
<td>Time consuming Selectivity: poor, unless broad coverage Reflexivity: events may be processed differently</td>
</tr>
<tr>
<td>Participant-observation</td>
<td>Same as for direct observation Insightful into interpersonal behaviour and motives</td>
<td>Same as for direct observation Bias due to investigator’s manipulation of events</td>
</tr>
<tr>
<td>Physical Artefacts</td>
<td>Insightful into cultural features Insightful into technical operations</td>
<td>Selectivity Availability</td>
</tr>
</tbody>
</table>

Normally this collection of data includes questionnaires, experiments, direct observation, participant-observation, interviews and focus groups (Collis and Hussey, 2003; 2009). Yin (2009) suggests six major sources of evidence for the case study approach (see Table 5.6).

Table 5.6 compares the strengths and weaknesses of six sources of data collection.
**Documents**: these provide specific details that can support verbal accounts, and they could be letters, memoranda, agendas, administrative documents, newspaper articles or any document relating to the investigation;

**Archival records**: these include service records, organisational records, lists of names, staff and payroll records, old correspondence and other such records;

**Interviews**: one of the most important sources of information in a case study. They should be undertaken by conducting personal interviews;

**Direct observations**: a way of collecting reliable evidence, for example when a field visit is conducted during the case study;

**Participant-observation**: this technique has been most frequently used in anthropological or sociological studies where the researcher attempts to participate fully in the lives and activities of the subjects;

**Physical artefacts**: these include technological devices, tools, instruments, or some other physical evidence that may be collected during the study as part of a field visit.

Yin (2009) adds that no single source of data has a complete advantage over others, while the use of multiple sources (triangulation) of evidence can help in clarifying the real meaning of the phenomena being studied. Silverman (2002) and Denzin and Lincoln (1998) also encourage researchers to use more than one source of data and recognise the value of using multiple sources for the corroboration of findings and to improve the validity of data. Also, the multi-methods’ approach helps in overcoming the possibility of bias associated with any single source (Collis and Hussey, 2009). Golafshani (2003) agrees that the use of multiple sources of evidence can help substantially in improving research validity and enhancing the reliability of the study.

According to the discussion above, this study has collected both secondary and primary data. Secondary data was collected from books, journal articles and online data for helping to achieve the first objective of this study, to explain the research problem, to support the selection of the research methodology and to provide support for the primary data by collecting organisational documents. Primary data was collected through direct observation and interviews (as the main
data collection methods in this study). That means that this study used ‘data triangulation’ which refers to collecting data from different sources (Easterby-Smith et al., 2008) in order to avoid participants’ bias and researcher bias and to improve the research validity and reliability (Saunders et al., 2012; Easterby-Smith et al., 2008).

5.8.1 Interviews
Interviews are methods of collecting data in which selected participants are asked questions in order to find out what they do, think or feel (Hussey and Hussey, 1997). Collis and Hussey (2003) state that interviews may be face-to-face, voice-to-voice or screen-to-screen; conducted with individuals or with a group of individuals. Moreover, according to Easterby-Smith et al. (2008) there are three types of face-to-face interviews. These are structured, semi-structured and unstructured interviews.

**Structured interviews:** these interviews use questionnaires based on a predetermined and standardised or identical set of questions. Therefore, they are used to collect quantifiable data and thus Saunders et al. (2012) call them ‘quantitative research interviews’ which are analysed quantitatively;

**Semi-structured interviews:** the researcher will have a list of themes and questions to be covered although these may vary from interview to interview. A semi-structured interview is more suitable for qualitative research, also for explanatory and exploratory research (Ibid);

**Unstructured interviews (in-depth interviews):** these interviews are used to explore in depth a general area of interest to the researcher. The basic goal is to put the interviewees at ease and allow them to express themselves. Unstructured interviews are more suitable for exploratory research only and they are analysed qualitatively (Ibid).

In light of the explanations above, it was decided in this study to adopt face-to-face semi-structured interviews as the main method of data collection and documentation review and direct observations as the other source of evidence to enhance the research validity and reliability.
Justification for Choosing Face-to-Face Semi-structured Interviews

The main reasons for adopting face-to-face semi-structured interviews are as follows:

- There is a list of questions which need to be covered instead of allowing the participants to talk freely about the research problem;

- They have the capacity to gain large amounts of in-depth data from multiple organisations in a relatively short period of time and immediate follow-up and clarification are possible (Marshall and Rossman, 1999). This is critically important for this study which had a limited time and resources;

- As mentioned in section 5.1, this type of research is qualitative research, both exploratory and analytical research;

- Adopting face-to-face semi-structured interviews allows the researcher to observe the environment of the responder directly during the interview. The face-to-face interview helps establish a kind of trust between the interviewer and interviewee which will promote the validity of the research findings.

The Number of Interviews (Research Sample)

Recent literature has shown that there are no rules governing identifying a sufficient number of interviews in qualitative research based on the purpose of the study or the available time or resources. The size of the sampling in quantitative research is identified based on the size of the research population while in qualitative research the number of interviews must be identified based on ‘replication logic’ rather than on ‘sampling logic’. Therefore, experienced methodologists recommend that the qualitative researcher should keep on interviewing participants until the researcher reaches ‘replication’ (that is, collecting repetitive data and hearing the same stories repeated again and again) or ‘saturation point’ wherein no new information emerges during the interview process (Saunders et al., 2012; Creswell, 2007).
In this study, most data came from interviewing 48 employees who work at different levels: top (senior) management, middle management and shopfloor management and ordinary workers in the headquarters and in the different manufactories (plants) of the cases A and B, in order to avoid any participants’ bias (see table 5.8) which, in turn, will increase the validity and reliability of the research. The interviews were conducted until replication was reached for all the interview themes. Table 5.7 presents the target interviewees of the study.

Table 5.7: The target interviewees

<table>
<thead>
<tr>
<th>No</th>
<th>Managerial Levels &amp; Workers</th>
<th>Case A</th>
<th>Case B</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TM (Senior managers and deputy managers in the headquarters)</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>MM (Heads of plants and heads of human resources in the both headquarter)</td>
<td>4</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>SM (employees’ supervisors in the headquarters and in different manufactories)</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>WOR (ordinary workers in the headquarters and in different manufactories)</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>23</td>
<td>25</td>
<td>48</td>
</tr>
</tbody>
</table>

Table 5.8 illuminates the spread of interviewees both in terms of site and in terms of level in the organisations; this technique was used to avoid participants’ bias.
Table 5.8: The interviewees from case A and B

<table>
<thead>
<tr>
<th>Participants’ Workplaces</th>
<th>TM</th>
<th>MM</th>
<th>SM</th>
<th>WOR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarters A</td>
<td>1*+1</td>
<td>1*</td>
<td>1*</td>
<td>2*</td>
<td>6</td>
</tr>
<tr>
<td>Headquarters B</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Manufactory 1</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Manufactory 2</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Manufactory 3</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Manufactory 4</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manufactory 5</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Manufactory 6</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Manufactory 7</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Manufactory 8</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Manufactory 9</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Manufactory 10</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>10</td>
<td>14</td>
<td>20</td>
<td>48</td>
</tr>
</tbody>
</table>

* Pilot study (five interviewees)

5.8.2 Documentation
Yin (2009) argues that documentary information is likely to be relevant to every case study topic. Mason (2004) describes documentation as a research method that many qualitative researchers consider meaningful and useful in the context of their research strategy. In this study, the researcher was able to photocopy some of the organisations’ documents such as records of the organisational structure, job description documents, and was also able to view documents such as complaints from employees and their claims. Complaints and claims’ documents were not allowed to be photocopied but note taking was allowed.

5.8.3 Direct observation
Sekaran (2003: 254) recommends observational studies as a means to “provide rich data and insights into the nature of the phenomena observed”. In addition, there are some specific advantages to gathering data through observation (Sekaran 2009: 214):
The data gathered through observing events as they naturally occur are generally more reliable and free from respondent bias;

In observational studies, it is easier to note the effects of environmental influences on specific outcomes;

It is easier to observe certain groups of individuals, for example, extremely busy executives from whom it may be otherwise difficult to obtain information.

The main direct observations included handwritten notes in relation to the interviewer's observations and impressions taken during the field visit to each organisation and during the interviews. Also, the researcher tried to arrive at least two hours early for the interviews to use direct observation by visiting the workplace, observing the environment of the workplace and observing employees’ behaviour in dealing with each other.

5.9 The Field Study

The field study was started with setting interview questions (see appendix D). For the purpose of promoting the validity of the main scale of this study (face-to-face semi-structured interviews) three pilot studies were conducted, and then the actual study was conducted. Ethical approval was applied for and obtained before the field study started. Those issues will be covered in the following sub-sections.

5.9.1 Ethical Approval

This study was concerned with ethical scientific research, thus the researcher applied for ethical approval before conducting the pilot studies and the actual field study from the Research Ethics Panel at the University of Salford. To ensure the complete agreement of the interviewees, the interviews were conducted according to the following conditions:

- The approval of the interviewees (i.e. agreeing to be interviewed) was obtained before interviews took place (see appendix A);
- The interviewees were informed of the purpose of the research before the interviews;
- The interviews were held at convenient times (see appendix B);
• The interviewees had the right to halt the interviews at any time and could withdraw and have their data expunged;
• The confidentiality and anonymity of the interviewees’ personal data and responses were guaranteed in advance (see appendix B).

5.9.2 Setting interview questions
In order to collect the credible data needed for this research, interview questions were carefully prepared to cover the key areas. The questions in the case study interview guide were mainly open-ended, broad and indirect questions. The interview questions were designed to collect rich, deep and comprehensive information about the factors that cause IPC in the LCI. Consequently, the research aim and questions were used as guidance and compared several times in order to generate the initial draft of interview questions. In addition, some steps were undertaken before the main interviews were conducted. Firstly, the interview questions were discussed with the research supervisor (an expert in qualitative methodology and in the subject of organisational conflict). Then, three pilot studies (two in the UK and one pilot study in the LCI) were conducted to enhance the validity of the interview questions and the procedures for collecting the data, in order to ensure that all the key areas of the enquiry were covered. Details on the pilot studies are given in the next section.

5.9.3 Conducting pilot studies
Many research methodology experts believe that the questions asked by researchers, either through interviews or questionnaires should be tested by a pilot study (Saunders et al., 2012; Yin, 2009; Sekaran, 2003). Saunders et al. (2012: 677) define a pilot study as

“a small-scale study to test a questionnaire, interview, checklist or direct observation schedule, to minimise the likelihood of respondents having problems in answering the questions and of data recording problems as well as to allow some assessment of the questions’ validity and the reliability of the data that will be collected”.
Yin (2009) and Collis & Hussey (2003) recommend testing interview questions by conducting a pilot study on people who are similar to those in the real case study in order to refine the interview instrument and to improve the data collection procedures. In addition, Brenner et al. (1985) state that a pilot study is carried out to achieve the validity and credibility of the interview questions and procedures.

Consequently, for the present research, three pilot studies were conducted to test and check the interviewees’ understanding regarding the research issue and also to achieve the validity of the interview questions and the procedures. After the initial draft of the interview questions had been discussed with the supervisor and the feedback taken into account, the first pilot study was conducted in the UK with three academic staff of the department in which the researcher was studying. The second pilot study was conducted in the UK with five PhD students who work on related subjects which helped to ensure that the key areas of enquiry were covered. In each pilot study the researcher took a copy of the research questions, aim and objectives, some background information on IPC, a list of the factors that cause IPC, as created from the literature, and the initial draft of the interview questions and sat with each member and discussed the draft and the processes of collecting the data. Then, some changes to the draft, based on the comments that were obtained from these pilot studies, were made. This procedural step is supported by Ghauri and Gronhaug (2005) who argue that it is very useful to let somebody else see the problem statement and the questions to be asked in the interviews to check the congruence. The main purpose of the pilot studies is to get a valid draft of the interview questions and the processes from the theoretical (academic) aspect.

The next step was to take the draft of the interview questions (which was valid from the theoretical aspect) for a pre-test through conducting a pilot study in the Libyan Cement Industry in order to get the final draft which would then be valid from the practical (real life) aspect. Therefore, a third pilot study was conducted with five employees from different organisational levels in case A (which is near to the residence of the researcher): one from top management; the second from
middle management and the other three employees from the shop floor. This procedural step is supported by Yin (2009) and Ghauri and Gronhaug (2005). The pilot studies were found to be very helpful. The main benefits of these pilot studies are given in the following points:

- The pilot studies were considered as a training course for the investigator with respect to the data collection plan and data collection skills;

- Some changes were made to the questions in the light of the three pilot studies on such issues as language adjustments, re-phrasing and re-arrangement in order to make the questions more clear and understandable;

- The main benefit of the pilot studies was in gaining a valid scale/measure of the final interview questions for the actual study.

5.9.4 Conducting the actual case studies

Collection of the data was started at the beginning of June 2010 and completed by the end of October 2010, through semi-structured interviews as well by direct observation and documentation review. The time taken by each interview fluctuated. In general, the interview times were between thirty minutes and an hour. In order to demonstrate research validity and to overcome bias, some steps were carried out as follows:

- Before the actual interviews took place the researcher had visited top management in the two companies to introduce herself, to build up a rapport and to get permission to conduct the interviews at four organisational levels. The researcher used a student researcher letter that was provided by the University as a verification of the research that was being conducted. Such a step is supported by Easterby-Smith et al. (2008) and Ghauri and Gronhaug (2005) in order to assist in developing trust between the researcher and the interviewees;

- Because of cultural and security aspects, official permission was sought from the appropriate heads of department to interview employees;

- At the start of each interview the researcher spent some time introducing herself, explaining the purpose of the study to the interviewees and
confirming that their personal information would be kept confidential with
the assistance of the information letter and the consent form (see appendix
A and B). Furthermore, since their cooperation was necessary, the
researcher ensured that the interviewees felt relaxed and comfortable in
giving their answers;

- The interviews were arranged at times convenient to the interviewees. All
  interviews were conducted on organisation premises to allow the
  researcher access to appropriate documents and were held in a comfortable
  place chosen by the interviewee;

- Notes were taken during each interview. Copies of any documentary
evidence that seemed to be relevant were also made. On the same day as
  each particular interview, each interview was transcribed as a full written
  record and the interviewees were asked for confirmation of their answers
  and to give any comments (for example, additional information or
  clarifying their message) as recommended by Yin (2009); Creswell (2009)
  and Ghauri and Gronhaug (2005);

- Most of the interviews were conducted in the Arabic language (the mother
  tongue of the interviewees and the interviewer) which enabled participants
  to feel relaxed and comfortable while responding to the questions. Saund
  et al. (2012: 224) state that “use of the language will depend
  largely on the nature of the people you are contacting. Your language
  should be appropriate to the type of person being contacted, without any
  hint of being patronising, threatening or just boring”;  

- The interviews were started without knowing how many participants
  would be interviewed and continued until most answers had become
  repetitive; alongside this the researcher had to ensure that the information
  collected was enough to achieve the research questions, aim and
  objectives.

It should also be mentioned that most interviewees were very patient in granting
extra time for the interviews. As a result, the researcher was impressed with the
interviewees’ friendliness and display of interest in the research. Subsequently, the procedures gave the researcher confidence about the accuracy of the interview process which can increase the reliability and validity of the research.

5.10 Generalisation

In the literature on research methodology there are two types of generalisations: statistical generalisation and theoretical (analytical) generalisation (Collis and Hussey, 2009). Yin (2009) argues that using statistics to generalise from a sample to a population is one type of generalisation; interpretivists may be able to generalise their findings from one setting (environment) to a similar setting (environment). It is possible to generalise patterns, concepts or theories from a particular environment (very few cases or even a single case) to other environments (called theoretical generalisation) if the researcher has obtained a comprehensive and deep understanding of the activities and behaviour studied. Saunders et al. (2012) argue that qualitative research using semi-structured or in-depth interviews or adopting a case study strategy will not allow a researcher to be able to make statistical generalisations about the entire population.

The nature of this study is to build up theory; the philosophy of this research is interpretivism and the main data collection is by semi-structured interviews. Subsequently, the generalisation from the findings of this research is a theoretical generalisation and because of that the research findings can be generalised (adding to the literature on IPC) to add to the theories on IPC. Moreover, the findings can be generalised from the companies in the LCI to other organisations that have a similar internal and external environment.

3.11 Evaluating the credibility of the research

In the quantitative or qualitative research researchers need to demonstrate the credibility of their findings (Saunders et al., 2012). The term credibility is the essential criteria for quality in qualitative research (Golafshani, 2003). Validity and reliability are commonly used as the evaluation criteria in evaluating the credibility of a research methodology in deriving its findings (Saunders et al., 2012; Sutrisna, 2009; Gill and Johnson, 1997). Validity refers to the accuracy and trustworthiness of the instruments, data and findings in the research (Creswell,
reliability refers to the ability to obtain the same findings if the same method, data collection techniques, procedures and analysis are used on a second research sample (Yin, 2009: LeCompte & Goetz, 1982).

However, many authors believe that validity is high and reliability is low in qualitative research (Collis and Hussey, 2009) because qualitative research has a flexible structure that permits changes (Saunders, et al., 2007). Whereas, Stenbacka (2001) argues that the term reliability is one of the quality concepts in qualitative research. In addition, Lincoln and Guba (1985) state, that since there can be no validity without reliability, a demonstration of validity is sufficient to establish reliability. Moreover, Creswell (2009) and Golafshani (2003) confirm that increasing the reliability and validity are important in any paradigm for establishing good quality studies. In light of the foregoing discussion, increasing the validity and reliability of this study will be explained in the following points:

- The research process has been elucidated in general in 1.13 in order to promote the reliability and validity (supported by Saunders et al., 2007);
- Multiple case study strategies rather than single case study strategies were used to enhance the reliability and validity (supported by Yin 2009; Amaratunga et al., 2002);
- In order to enhance the reliability and validity, multiple sources of data collection (triangulation) were used (supported by Yin 2009; Saunders et al., 2009) such as direct observation, documentation and the semi-structured interviews with three managerial levels and ordinary workers in the two companies of the Libyan cement industry, from different places to avoid participants’ biases;
- Sutrisna (2011; 2010) argues that the validity of qualitative methods deals with the appropriateness of the method adopted to tackle the research questions. Therefore, all the methods, techniques and strategies that have been adopted were justified in order to enhance the validity of this research;
• The interview questions were carefully prepared and refined with the help of the supervisor and three pilot studies were conducted before the actual study so that valid interview questions were obtained;

• In order to promote confidence between the researcher and the interviewees, the researcher used a student researcher letter provided by the University as proof of the research that was being undertaken. In addition, before starting the interview the researcher spent time with the interviewees to explain the purpose of the study and to confirm that their personal information would remain confidential, with the assistance of the information letter and consent form (see appendix B and C), to enhance the validity and reliability (supported by Ghauri and Gronhaug (2005);

• Draft transcripts of the interviews were validated by the respondents to confirm that they accurately represented what they had said (supported by Ghauri and Gronhaug (2005);

• The research findings were linked to the literature review to enhance the research validity and credibility (Creswell, 2009).

5.12 Data Analysis

There is no standardised approach for the analysis of qualitative data as with quantitative data (Collis and Hussey, 2009; Saunders et al., 2003) and researchers can develop their own ways of analysing this kind of data (Taylor and Bogdan, 1998). This is because the quality of analysis of this type of data depends on the quality of the data that have been collected and its interpretation by the researcher (Collis and Hussey, 2009). It was indicated by Saunders, et al., (2009) that using the transcripts or notes of qualitative interviews or observations by thoroughly reading and re-reading them is one approach to analysing this type of data.

However, in the literature on the analysis of qualitative data, there is a general approach for analysing qualitative data which can be used with any kind of qualitative data even if collected under a positivist paradigm or an interpretive paradigm (Ibid). Some authors as Braun and Clarke, (2006) and Boyatzis, (1998) called the general approach for analysing qualitative data ‘thematic analysis’.
Boyatzis (1998: 4) has argued that thematic analysis is “not another qualitative method but a process that can be used with most, if not all, qualitative methods...”. Collis and Hussey (2009) stated that the general analytical procedure approach (thematic analysis) provides the methodical rigour and systematic processes which are required. Braun and Clarke, (2006: 79) define thematic analysis as “A qualitative analytic method for: identifying, analysing and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic”.

The thematic analysis approach involves a general procedure for analysing qualitative data as follows (Collis and Hussey, 2009; Thomas and Brunton, 2006):

- Convert any rough field notes into forms of written record;
- Ensure that all materials collected are referenced;
- Start coding the data as early as possible;
- Start grouping the codes into smaller categories according to themes or patterns which emerge;
- Write summaries of the findings at various stages;
- Use the summaries to construct generalisations which can confront existing theories or build a new theory;
- Continue the process until one is satisfied that the findings are sufficiently robust to stand the analysis of existing theories or the construct of a new theory.

In addition, qualitative data and summaries of its analysis can be displayed by matrix, chart, graphs or networks under the general approach of qualitative data analysis (thematic analysis) (Collis and Hussey, 2009).

On the other hand, researchers who use multiple case studies as the main strategy for their research can organise the data analysis process by two stages: within-case analysis and cross case analysis (Yin, 2009; Ayres et al., 2003; Creswell, 1998; 1994).
Based on the above discussion, this research is a qualitative research and the main research strategy is multiple case studies. Therefore, the data was analysed by using the thematic analysis approach which includes general procedures for analysing, which offers an accessible and flexible approach to analysing qualitative data especially for those not particularly familiar with qualitative research as postgraduate students (Collis and Hussey, 2009).

In addition, the analysis and discussion is organised in two stages: within-case analysis (that means analysing each case separately and draws conclusion for each case) and cross-case analysis (in this stage the similarities and differences among the findings of the cases will be discussed and combines the cases findings as an attempt to answer the research questions); which is recommended for multiple case study research.

The data was analysed manually, because software like NVivo does not do the analysis, but it helps with the process of structuring and coding, where the analysis and interpretation is up to the researcher (Ibid). A summary of findings will be displayed by charts.

**The general procedures for the thematic analysis**

In order to deal with the huge volume of qualitative data that has been collected via multiple case studies, general procedures for the thematic analysis was set up as follows:

- The research aim and questions were taken into consideration by the researcher at all stages of the analysis;
- All interviews were written into Microsoft Word. The interview transcripts were returned back to the respondents for confirmation and all the notes from the direct observations were written into Microsoft Word and have been linked to their interview transcripts;
- Any material collected by interviews, documents or direct observations was carefully referenced;
• The researcher started the analysis by reading and rereading the transcripts of the interviews and the notes of direct observations and documents many times until the researcher became familiar with the data (supported by Saunders et al., 2012; Creswell, 2007);

• Then, the researcher started coding the data. Coding refers to ‘the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon’ (Boyatzis, 1998: 63 cited by Braun and Clarke, 2006: 88);

• After the data was coded, the researcher grouped the codes into smaller categories according to the themes which emerged dependent upon the research questions (supported by Saunders et al., 2012; Collis and Hussey, 2009). In this process, two main themes were identified (the level of IPC and the causal factors of IPC);

• Both case studies were analysed separately. Then, the findings from both case studies were combined and discussed.

5.13 Chapter Summary
The main aim of this chapter was to provide the overall research methodology used in this study. It presents information on the selection of the research philosophy, the research reasoning, the research approach, the research strategy, the data collection methods and the procedures adopted during the field study and for analysing the data.

Accordingly to the nature of the research, interpretivism was selected as the main research philosophy. Inductive logic and a qualitative approach were adopted for the research reasoning and the research approach. Multiple embedded case studies were chosen as the most appropriate research strategy. Therefore, 48 face-to-face semi-structured interviews have been conducted with the employees of the LCI which involves two companies (case A and case B) and have been triangulated with other sources such as documentation and direct observation. The chapter has illustrated that the data was analysed by using a thematic analysis approach (that
involves a general approach for analysing qualitative data) by coding the data, categorising the codes into themes and summarising the findings at various stages.
CHAPTER SIX

RESEARCH FINDINGS AND DISCUSSION

6.0 Introduction

The aim of this chapter is to present the findings and a discussion of the empirical investigations that were obtained from two case studies. The findings were produced from 48 face-to-face semi-structured interviews, as explained in chapter five, and they were supported by triangulation with other sources: documentation and direct observation.

The data gathered are based on the theoretical framework which was developed from the literature, consisting of the causal factors and sub-factors of IPC. The theoretical framework and the aim and objectives of this research, and the questions posed by this study, guided the collection of the related data. The data was analysed by the thematic analysis approach that was described in chapter five.

As stated in chapter one, the main purpose of this study is to develop a framework for the causal factors of interpersonal conflict (IPC) in the Libyan cement industry. To achieve this aim, two research questions were designed:

- What is the level of IPC in the Libyan cement industry?
- Why does IPC exist in the Libyan cement industry?

This chapter will present the findings using within-case analysis and cross-case analysis which are recommended for multiple case study research. This means that each case will be analysed and discussed separately, illustrating the similarities and differences among the findings from the cases. Subsequently, the findings from the two cases will be combined.
6.1 Characteristics of the Interviewees

The interviewees represented three managerial levels and ordinary workers in each case, namely: top management (TM) (senior managers and deputy managers); middle management (MM) (heads of plants); shop floor management (SM) (heads of departments, units and employees’ supervisors) and workers (WOR) (ordinary employees who do not have any official authority in the organisation). It was decided to include all these organisational levels in order to gain in-depth information and clear perceptions about the causal factors of IPC in the Libyan cement industry (LCI).

The total number of participants from case study A was 23 participants: 2 participants from TM (top management); 4 participants from MM (middle management); 7 participants from SM (shop floor management) and 10 participants from the WOR (workers).

The total number of participants from case study B was 25 participants: 2 participants from TM (top management); 6 participants from MM (middle management); 7 participants from SM (shop floor management) and 10 from the WOR (workers).

6.2 The Research Findings

This section presents the findings from both cases based on the main two themes: the level of IPC and the causal factors of IPC in the LCI.

6.3 The Level of IPC

Analysing and discussing this theme will help in obtaining answers to the first research question: “What is the level of IPC in the Libyan cement industry” and will assist in achieving the second research objective.

According to the modern theory of OC and IPC there are three main levels of conflict in the workplace which are low level, average level and high level (see section 2.2.3 in chapter two). Most recent studies, such as Wood et al. (2010), Brooks (2009) and Robbins and Judge (2008), state that low and high levels of conflict have a negative impact on the productivity of organisations. On other
hand, an average level of OC has a positive influence on the productivity of organisations (Ibid).

The question posed to the interviewees was: “Our life is not free from conflict; some say that conflict is the spice of life. From your experience in this organisation would you please identify the level of IPC in your company? Is it low or average or high or is there no conflict at all?”

The level of IPC in case A:
The majority of the respondents in case A [78%; 18 from 23 (2/2 TM; 3/4 MM; 5/7 SM and 8/10 WOR)] believed that the level of IPC in their company is at a high level. Figure 6.1 shows the participants’ answers on the level of IPC in case A.

All the respondents from the top managerial level answered that IPC is at a high level with one of them underlining that IPC exists at a very high level.

![Figure 6.1: The level of IPC in case A](image)

TM-A1 answered “Conflict between individuals in this company is at a high level and I cannot deny this. You read some stories on this type of conflict on some pages of the net. For this reason, you're interested in studying this subject (with a
smile) but I would like to say that not all of what you read or hear is correct. Because it holds a lot of slander and unfairness for some individuals”;

TM-A2 argued “Unfortunately, conflict is at a high level. Indeed we can say it is at a very high level and we are working to reduce it as much as possible because some causes are outside our authority”.

A significant majority of the respondents (75%) from the middle managerial level in case A (3 from 4 respondents) believed that IPC is at a high level, while one interviewee deemed that IPC is at an average level. The following is a sample of their answers.

“I believe that conflict is at a high level” MM-A1.

“Conflict is at a very high level, whereby one day the matter reached a level where it was necessary to call the police for some workers or ‘troublemakers’ because they tried to stop the work in the…plant”. Q: Why? “They had an objection to the method of distribution of the annual bonus, but this is not the right way to deal with this” MM-A3.

“I can say that conflict is at a high level, but it is not out of our control” MM-A4.

“I can say that conflict is at an average level. Yes, there is conflict in most departments in the company between the workers, but it is under control” MM-A2.

The majority of the respondents (70%) from the shop floor managerial level (5 out of 7 respondents) deemed that IPC is at a high level, while two interviewees believed that IPC is at an average level. The following shows parts of their statements.

“Conflict between members of the company is at a high level and reaches its peak at the end of the year when there is a distribution of the rewards” SM-A2.
“Conflict is at a high level but we can deal with it” SM-A4.

“Conflict is at an acceptable level and we are not afraid of it because we deal with it in a positive way”. Q: What do you mean about an acceptable level? “I mean that conflict is not at a high level or at a low level. It is at an average level” SM-A3.

A significant majority of the interviewees (80%) from the workers’ level (8 from 10 respondents) believed that IPC is at a high level. At the same time, two interviewees believed that IPC is at an average level. The following are some samples of their responses.

“It is at a high level” WOR-A1.

“I believe that conflict is at a high level and no one can say the opposite of that”. WOR-A2.

WOR-A3 and WOR-A8 stated “conflict is at a very high level”.

Whereas WOR-A4 and WOR-A7 stated “Conflict is at an average level”.

As noted in the above and as seen in figure 6.1, there is no significant variation among the answers at the various levels of analysis (TM, MM, and SM and WOR). There is almost a consensus among the answers that conflict is at a high level with some other answers stating that it is at a very high level. Moreover, it can be argued that IPC depletes a huge amount of time from the time available to the officials in the top management level. One of them said “We are trying to reduce the causal factors of interpersonal conflict and we are working to find radical solutions for it as much as possible. But some causes are outside our authority” (TM-A2).

This type of conflict is assumed within the literature to be handled by the direct administration of employees (i.e. by shop floor management) (Wood et al., 2010)
and should not go beyond this level and be a drain on the time of top and middle
management. Therefore, IPC, especially in this case study, needs an in-depth
study of the factors which have caused its emergence at such high levels. In
addition, it requires a quick treatment before it exacerbates and exceeds the limits
of the company to reach the community.

The level of IPC in case B:
Slightly more than half of the interviewees in case B believed that the level of IPC
exists at a high level [56%: 14 out of 25 (2 MM; 5 SM and 7 WOR)]. More than a
third of the respondents believed that IPC occurs at an average level [36%: 9 out
of 25 (1 TM, 3 MM, 2 SM and 3 WOR)] and 8% (2 out of 25) of the respondents
stated that IPC was at a low level (one from TM and the other one from MM) (see
figure 6.2).

One interviewee from the top managerial level deemed that IPC is in an average
level whilst the other one believed that IPC occurs at a low level.

Figure 6.2: The level of IPC in case B

TM-B1 replied “Most company plants and their headquarters are located in
small cities and most employees know each other because they have affinity
relationships. For this reason, problems between them are simple and do not live
up to a high level classification, so I think that conflict between them is at an average level”.

TM-B2 said “I think conflict between individuals in this company is at a low level because I haven't received any complaints in this regard”.

Half of the interviewees from the middle managerial level in case B estimated that the level of IPC is at an average level (50%: i.e. 3 out of 6 respondents). One third of the interviewees at this level stated that IPC is at a high level (2 out of 6 MM, i.e. 33%) and only one interviewee from the middle managerial level argued that IPC is at a low level. The following is a sample of these varied opinions.

“In fact, conflict in this institution is at a high level and may reach a very high level. It is hidden and invisible. But it appears evident at meetings where the friction between the conflicting parties is obvious” MM-B5.

“Conflict is at an average level. We always stress to all supervisors the need to resolve the misunderstandings that appear from time to time between their workers so as not to develop into a brawl” MM-B1.

“Yes, there is conflict in most of our departments between the workers, but it is under our control. So, I deem that it is at an average level” MM-B6.

“Conflict is under our control, so I believe that it is at a low level” MM-B4.

Most of the interviewees from the shop floor managerial level in case B deemed that IPC is at a high level (5 out of 7 SM), while two interviewees believed that IPC is at an average level (2 out of 7 SM). The follows is an illustration of their responses.

“In general, conflict exists at a high level in this company, but in this unit we are always trying to resolve the problems once they appear on the surface, so as not to worsen them” SM-B3.
“Conflict between the employees is at a high level, but we try to control it as much as possible” SM-B6.

“Conflict in this company is under our control, so I can confirm that conflict is at an average level” SM-B1.

“I would estimate that conflict between our workers is at an average level” SM-B7.

The majority of the interviewees (70%) from the workers’ level in case B believed that IPC is at a high level (7 out of 10 WOR). Only three interviewees (WOR-LCC4; WOR-LCC5 and WOR-LCC8) believed that IPC is at an average level. The subsequent quotations provide a sample of their answers:

“Generally, conflicts in this company are at a high level and most of them are undeclared” WOR-B2;

“Conflict in this company is not found at a high level only. I can say it is at a very high level” WOR-B10;

“Conflict is at an average level” WOR-B4;

“Yes, there is conflict between employees but it does not amount to being at a high level. I believe that it exists at an average level” WOR-B5;

“It exists at an average level” WOR-B8.

It is evident from the above that there is a discrepancy in the views of analysis levels (see figure 6.2). Most of respondents from TM and MM believed that IPC is at the average level, while most of respondents from WOR saw IPC as being at a high level. This may be due to the fact that top and middle management officials have no direct contact with the workers and no sufficient awareness of the behaviour of workers on production sites except through the reports that are sent to them from the shop floor management.
TM-B2 said “I think conflict between individuals in this company is at a low level because I haven't received any complaints in this regard”.

Accordingly, it can be stated that IPC in case B is controlled by the officials of the shop floor management despite its presence at a high level, as stated by the answers of both SM and WOR. This high level of IPC could be due to the improper management of such conflict as most of the supervisors of the employees are holders of mechanical and electrical engineering certificates and have not taken any training courses in the field of modern management science. Therefore, they have an insufficient knowledge of the basics of management science, especially in the field of organisational conflict management. This notion is supported by Hudana (2004) who argues that most organisations in the LCI are managed by engineers and most of them do not hold qualifications in the field of Business Administration.

The causal factors of IPC will be analysed and discussed in-depth later in this chapter.

**Discussion on the level of IPC in the LCI**

Overall, most case A participants believed that IPC is at a high level. There was a similar result in case B but with less intensity; this may be due to the integration of case study A with a foreign partner. In this respect, it is worth mentioning that Al-Gaddafi suspended all businesses with Western companies in April 1996 and asked them to leave Libya. Good relationships between Libya and the West were regained only after Libya was removed from the United States’ list of terrorist states in May 2006 (Falola et al., 2012). Hence, it can be expected that there will be resistance to change by workers as they are not used to working under foreign management and this is mirrored in the form of conflictual behaviour inside the organisation. Case B has not witnessed any ownership changes and has not been affected by Libya's openness to the Western world after mid-2006; this may have contributed to the interpersonal conflict intensity generally being lower than that in case A.
Further to the analysis of the level of IPC in case A and case B, it can be concluded that the level of conflict in the Libyan Cement Industry (LCI) is at a high level (see figure 6.3) and needs to be tackled quickly before it gets worse. Therefore, this study seeks to identify the causal factors of IPC in the cement industry in Libya and to provide recommendations to the LCI administration for their reduction in order to improve IPC management in this industry.

6.4 The Causal Factors of IPC

This subject contains the main themes such as individual differences, behaviour factors, financial factors and organisational factors, and sub themes such as the age gap between employees, differences in educational level, cultural differences and so on.

It is worth mentioning here that by analysing and discussing this theme the third objective of the study can be achieved (to create a validated framework of the factors that cause IPC in the cement industry in Libya) and the second research question can be answered “Why does IPC exist in the Libyan cement industry?”

6.4.1 Individual differences

Individual differences are considered, by a large consensus of the researchers studying management and sociology (such as Brooks, 2009; Luthans, 2008;...
Mullins, 2007; 2005; Assaf, 2004) one of the main sources of conflict amongst individuals. Among the individual differences that have emerged during the analysis of the data are: the age gap between employees; differences in educational level, and cultural differences. These differences have been put forward by some of the employees in their answers to the question: "In your opinion, what are the factors that cause conflict among employees in your organisation?"

6.4.1.1 Age gap between workers
The results of the analysis show that the age gap between workers has a significant impact on the level of IPC in case A, whereas it does not have a significant impact on the level of IPC in case B. The results were based on the answers of the study participants to the question: Does the difference in age between workers have an impact on the level of IPC in your organisation?

![Figure 6.4: The impact of the age gap between workers on the level of IPC in LCI](image)

The age gap between workers in case A:
Age gap is one of the most prominent individual differences among some employees in case A. This factor was addressed by the following numbers of participants (1/2, 2/4, 5/7, 5/10). The total is 13/23 participants which equates to 57% of respondents in case A (see figure 6.4).

One TM stated that “We are suffering from problems originating from fossilized mentalities and the refusal to accept current changes in the company; most of this
comes from the oldest employees, especially those who held leading positions under the previous management. Therefore, these employees do not have the desire to develop themselves and refuse to take computer and English language courses and they always chant in our ears the popular proverb ‘you cannot teach an old dog new tricks’” TM-A1.

Additionally, a member of middle management noted that “The administration now adopts a new policy to attract and appoint engineers and young professionals, especially those who speak English fluently who accept modern technology, and this raises the ire of some older employees and makes them hinder work and burden their supervisors with minor problems” MM-A2.

One SM said “Conflict among the generations in this institution is very clear in that the vision of the young engineers differs from that of the older generation. Thus, the engineers or the youngest workers are active, more vibrant and fluent in their communication with the administration because their English language is very good, unlike the older employees who do not like the new technology, such as the use of emails, and this obstructs the work and creates countless problems” SM-A5.

In this regard, one WOR said “Yes, I experienced a difference in views between me and the head of a department, and that happened when he formed two teams; one consisted of young employees who do not have enough experience in undertaking the work. The nature of our work is dangerous because we are dealing with materials that are burnt at very high temperatures that are up to more than 2,000 degrees Celsius, and these young employees are quick in their movements and I was worried about them, and the second team, in which I was put, consisted of older employees” and he added “His argument was that he wanted to create harmony among the members of each team since members in each team are almost of the same age. However, I strongly objected to this but he did not like it, so he wrote a message to the manager of the factory in which he stated that I always object to the work style, and he also accused me of provoking employees against him. After that, the manager of the factory asked me to come to
his office and then I explained to him my viewpoint in that I prefer to form a team of mixed ages in order to avoid injuries that may end in the loss of a life - as happened in one of the other company's factories when a young worker was reckless and began cleaning the oven from the middle instead of cleaning it from the top, so the molten materials poured over him and caused the loss of his life. Consequently, the manager asked the head of the department to learn from my previous experience, since I was in charge of this department before he was appointed in the company” WOR-A1.

As a result, it can be noted from the above that age gap appeared clearly, in all the units of analysis, in case A as one of the individual differences that causes conflict among individuals (57%, 13/23 participants). Age gap conflict was mentioned in 50% of the answers by top management participants, 50% of the answers by MM participants, 71% of the answers by SM participants and it was mentioned in 50% of the answers by ordinary workers.

This result is due to the policy adopted by the management in the case A that is represented in attracting young engineers and young workers and giving them leadership positions because of their proficiency in using modern technology and their ability to communicate in English with the members of the company team management. This factor emerged most prominently from the workers in the shop floor management when compared to the responses from the participants from the other levels and this is due to the resistance that young leadership receives from their older subordinates.

**Age gap between workers in case B:**

This factor was only mentioned by 24% (6/25) of the total participants in case B, and all of them were from the WOR level (see figure 6.4). The IPC caused by this factor is characterized by its hidden and sensitive nature due to the presence of social restrictions (or customs) that are reflected in showing respect to older people and not discussing them even if they are wrong. These social norms or customs are adhered to more in smaller cities as compared to the larger cities (this
idea is supported by Alorafi, (2010) (NB: most of the manufactories as well as the headquarters of case B are located in small towns).

The following are some quotations from some of the respondents.

One WOR said “These days I encounter a great psychological pressure because one of the workers in the factory keeps accusing me of carelessness, a lack of focus and hastiness in work; disparaging me in front of people in charge for no reason except that I am younger than him and I have a degree from the Higher Institute of Electricity, whereas he has only a secondary school certificate. It is true that he has got better experience than me but he considers me a rival to him at work; maybe because he fears for his position in the department. However, I understand his fear and I deal with him the same way I deal with my father because of the age difference. Also, I have no desire to complain about him to the head of department because I will be blamed by other workers, so I was thinking of moving out to another department in case I cannot find a solution to my problem” WOR-B3.

Another worker said “I faced a difference in viewpoint between me and a colleague of mine on the method of doing the work. Because he was older than me, I kindly asked him to consult a number of colleagues and everyone supported my point of view. The matter made my colleague angry and he became more sensitive to such a degree that he avoided even looking at me although I did not mean to embarrass him in front of colleagues” WOR-B6.

None of the TM, MM and SM referred to this factor as one of the individual differences causing IPC in the company. This may be due to the non-existence of complaints by the workers in this regard. One MM said “I did not receive any complaints or reports in this regard from the supervisors of workers. Therefore, I do not imagine that the difference in age among workers causes conflict. I expect this factor produces diversity in ideas” MM-B1. Subsequently, he ended by mentioning the wise saying: Differences of opinion do not spoil intimacy/disagreement does not damage amicability” MM-B1.

Similarly, one of shop floor managers stated “Yes, there is a difference between the ways of thinking and the work styles of the older and younger employees in the
factory, or between the older workers and the newly appointed workers in the company where most of them are new graduates. However, this difference is not expressed as violent conflict. It is mostly in the form of undeclared competition and hidden tension, so I expect that it will be solved with the passage of time” SM-B1.

This factor has a larger impact on the level of IPC in case A as it was put forward in 57% of the answers of the participants in case A, while its impact was mentioned by about 24% of the participants in case B. This is because case A has adopted a new policy in attracting young workers especially those who can communicate fluently in English with the departments and units of the company in order to facilitate the communication process. Also, due to the changes at the level of its policy and administration, that the process of resistance to change by the employees is to be expected and leads to a high level of IPC, as indicated in many studies such as Luthans, (2008); Mullins, (2007).

6.4.1.2 Differences in educational level amongst the workers

The results of the analysis showed that difference in educational level does not have a significant impact on the level of IPC in case A or case B, despite the fact that some respondents confirmed its impact as causing conflict among them. This is based on the answers of the study participants to the question: “Does a difference in educational level between employees have an impact on the level of conflict among them in your organisation?”
**Differences in educational level in case A:**

Most respondents in case A believe that differences in educational level among workers have no significant impact on the level of IPC in their organisation. 16 out of the 23 participants answered “No” to the above question and 7 out of 23 participants answered “Yes”. Of the 7 who answered “Yes”, 4 of them were workers and 3 were shop floor managers (see figure 6.5).

Most of the answers from the participants from top and middle management did not support the idea that differences in educational level among workers might be one of the factors causing a high level of IPC in case A. One of them said “I do not think that differences in educational level can possibly lead to conflict. It could lead to diversity in their awareness of things and this is healthy because it produces new ideas and solutions” TM-A1.

Someone else narrated a story to show his idea. He said “… one day two employees came to my office. One of them was an engineer (newly appointed as a shop floor manager) and the other one was a technician who has a long experience in our field. There was a difference in views between them regarding the “set-up” for some machines. The technician insisted on a certain way to deal with the case since he had previous knowledge in this field, while the engineer had a way that was contrary to the technician’s. The dispute escalated between them, so they came to my office to consult me in the matter as I was their boss. I
recommended the technician’s method because it saved time, whereas the engineer’s way was good but it took more time. This simple disagreement did not lead to a rupture or dispute between them since I did not receive any complaints from either of them against the other” MM-A2.

Most answers from the participants from shop floor management indicated that differences in educational level do not have an impact on the level of IPC. 4/7 of them answered “No” and 3/7 of them replied “Yes”.

One said “I think that differences in educational level often lead to simple disputes that end immediately” SM-A4.

In contrast, another participant from the same level said “Yes, differences in academic level may create some kind of grudge between the two parties which could be the seed for other differences in the future” SM-A2.

Most workers believed that differences in educational level amongst workers had no significant impact on creating IPC. 6/10 of them answered “No” to the question while 4/10 of them believed the opposite. One of them said “… there are individuals who have no university degrees but have general knowledge and culture that is better than us as university graduates, so I do not expect that differences in educational level would lead to a conflict” WOR-A3.

Another one said: “Yes, to a certain degree. The difference in educational level between two people may create a conflict between them, especially when the one who holds a university degree is boastful and arrogant” WOR-A9.

**Differences in educational level in case B:**

Most of the participants in case B believed that differences in educational level amongst workers does not cause a high level of IPC in their organisation but that it creates some kind of positive competition among them. 20 out of the 25 participants answered “No” and 5 out of the 25 answered “Yes” (3 of them were workers and the other two were from shop floor management).
In this regard, one of them said “No, I do not think that a difference in the educational level amongst workers could create conflict. It could possibly create a kind of competition between those who have a university degree and those with a lower degree. However, we should also mention that experience is important in this respect” MM-B6.

In the same context, someone else said “No, these differences do not create conflict amongst workers but they could result in a beneficial kind of jealousy which stimulates all of them to prove their presence and ability to work”. SM-B7

Another one, who had a different point of view, said “Yes, difference in education has an effect on the relationship among individuals. It sometimes causes great sensitivity especially when someone in charge delegates some of his authority to some subordinates. This makes those who hold a degree think that they deserve to have this authority” WOR-B2.

Furthermore, one said “Yes, differences in educational level create some kind of conflict that may not be visible to all. I know two colleagues who do not like each other because of differences in their educational levels. The first one is an electrical engineer graduate from the Higher Institute while the second one is an electrical engineer graduate from the University of Tripoli. Although they have the same job rank, the personality of the university graduate is provocative and regards his colleagues disrespectfully and always tries to show that he has more knowledge than others. However, I see that the graduate of the Higher Institute is more productive at work” WOR-B6.

Based on the above, it can be observed that differences in educational level does not have a significant effect on the level of IPC in both cases A and B because most Libyan workers are educated. This idea is supported by Rhema and Miliszewska (2010) who argue that Libya has the highest achievement rate in reading and writing compared with other countries in the Arab world according to the United Nation’s Human Development Index. Education in Libya is
compulsory until the age of 15. Additionally, education in Libyan universities is free for Libyans, giving a great opportunity for everyone to obtain a university degree if they so wish. This result contradicts the findings of previous studies in the literature on IPC.

At the same time, 25% (12 out of 48) of the participants in the study mentioned that differences in educational level amongst workers have an impact on the IPC in their organisations. The nature of IPC that is generated as a result of these differences is predominantly non-apparent. In addition, there are some opinions that consider this factor is likely to create positive effects by providing ideas and a variety of solutions to problems. This result has not been referred to in previous studies according to the knowledge of the researcher (namely, that differences in educational level amongst workers can have an effect by creating positive conflicts which can provide ideas and a variety of solutions to problems).

6.4.1.3 Cultural differences
The results of the study showed that cultural differences among individuals do not demonstrate a strong influence on the creation of conflict amongst workers and thus on the high increase in the level of conflict in both cases A and B. This is based on the answers by the study participants to the question “Do cultural differences among workers have an impact on the level of conflict in your organisation?”

![Figure 6.6: The impact of cultural differences on the level of IPC in the LCI](image)
Cultural differences in case A:

Most participants in case A (16/23 ~ 70%) answered that cultural differences amongst workers do not have a strong influence on the level of conflict in their organisation. However, 7 of them replied that cultural differences do have a strong impact on the level of IPC in their organisation (see figure 6.6).

Participants from TM believed that cultural differences amongst workers do not have a strong influence on the level of IPC in their organisation. One interviewee said “I do not think that the high level of conflict in the company is due to cultural differences among workers. Yes, we have a new partner who has shares with us in the company's administration, but the workers are managed by Libyan supervisors because most of these workers cannot communicate in English. Also the number of foreign workers does not exceed 100 out of 2,500 workers. A large number of them are employed in main management and the rest are distributed all over the company's factories and they are very understanding and aware of the nature of our culture” TM-A1.

Another one confirmed the same feeling: “We Libyans classify ourselves. We say this person is urban, this one is a nomad and that one is from the Tabu or Tuareg tribes; however, we are, at the same time, all Muslims and that our culture and principles are derived from the principles of the Islamic religion. Therefore, I do not think that there are big cultural differences among Libyan workers that would generate conflict among them. Also, the number of foreign workers is few and some of them are Arabs and they are close to our culture” TM-A2.

Three participants from MM (3/4 = 75%) confirmed that cultural differences have no impact on the level of conflict amongst workers in the company, whereas one participant had a counter-opinion in this regard. He said “Some workers in this factory in particular classify each other on the basis of being a nomad or an urban despite the fact that they sometimes live in the same neighbourhood. I think this type of “classification” creates a kind of resentment and hatred among them,
which quickly turns into conflict, caused by the most basic misunderstanding.” MM-A3

However, the majority of this level of administration agreed that “There are no cultural differences amongst workers in this factory. Most of the workers are Libyans from the same region; in addition there are only 3 from other Arab countries who are Egyptians and their customs and traditions are close to the customs and traditions of Libyans. So I do not think that the high level of conflict amongst workers in the company is due to cultural differences”. MM-A1

The majority of SM (5/7 = 71%) believed that cultural differences have no impact on the level of IPC in the company, whereas the remaining two participants believed in the contrary. The following are some replies from the two different viewpoints:

“Libyan workers do not have problems with their foreign colleagues because of cultural differences but because of the unfair distribution of salaries and this has resulted in a lot of tension among them”. SM-A5

“Yes, there are some problems amongst workers and some complaints are received from these people and the causes for these complaints are of a cultural and tribal nature. Some of the tribal problems amongst workers are carried into their work and it is not easy at all to deal with them” SM-A2.

At the level of the workers, most participants (6/10 = 60%) believed that cultural differences have no effect on the level of conflict. However, 40% of them believed that cultural differences do have an influence in the level of IPC in their organisation. The following lines are quoted from their replies.

“Cultural differences create a kind of harmony and excitement in the business atmosphere” and then that participant added “I feel more comfortable at work when I am on patrol work that includes a mixed group of Libyans and non-Libyans” WOR-A4.
“Yes, cultural differences among Libyan workers have a significant role in some cases of disagreement in the company. One day, we heard a sound of a quarrel in the corridor and, when we rushed out, we found two colleagues fighting; one was Libyan and the other was non-Libyan. After asking about the reason behind the fight, they said that one of them described the other as a barbarian who complains and grumbles a lot” WOR-A3

Cultural differences in case B:
Most participants in case B (19/25 = 76%) answered that cultural differences have no effects on the level of IPC in the company, whereas 6 of the participants stated that cultural differences do have an impact on the existence of IPC in this case.

Two participants from TM (2/2 = 100%), five from MM (5/6 = 83%), five from SM (5/7 = 71%), and seven from WOR (7/10 = 70%) believed that cultural differences have no role in the level of IPC (see figure 6.6). Some of their replies are given below.

“No, I do not think that a reason for disputes among workers is because of cultural differences. We have a few foreign technicians and most of them are Arabs whose culture is close to the Libyan culture” TM-B1.

“No, there is no big cultural difference between Libyan workers from Arabic origins and their fellows from Amazigh roots such as Tabu and Tuareg, except in terms of the spoken language they use which is the Amazighi dialect. At the same time, they are fluent in Arabic because they are Muslims who pray and read the Koran in Arabic; therefore, our traditions and customs are the same because they are based on the principles of the Islamic religion” MM-B4.

“No, there are no significant cultural differences among workers in this department and, if they exist, then they result from a simple misunderstanding that is resolved in time and does not cause violent conflicts” SM-B2.
“No, most of workers in this department are Libyans and there are no significant cultural differences among us. We are all Muslims and speak Arabic. But what causes disagreement here is favouritism and a lack of fairness in treatment. That is to say, the relative of a person in charge has priority in having training sessions and in receiving rewards, but others do not” WOR-LCC4.

On the other hand, one participant from MM (1/6 = 17%), two from SM (2/7 ~29%) and three from the level of the workers (3/10 = 30%) held a different view and believed that cultural differences have an impact on the level of IPC in case B. The following are some of their answers.

“Yes, I expect that cultural differences play a role in the existence of conflict within the company, especially as Libyan society is dominantly tribal and some problems among workers are rooted in the presence of a tribal dispute among them. However, this is to be expected especially in this region” MM-B5.

“Yes, cultural differences have an impact on the level of conflict because there is a difference in dialect and in some customs and traditions between one region and another, as well as between one tribe and another. Therefore, this creates a kind of tension that can turn into violence especially for the workers who are suffering from problems between their tribes” SM-B6.

“Yes, I know a fellow worker who does not like to mix or engage with a particular worker because of an old tribal revenge” WOR-LCC9.

At first glance, in analysing the Libyan Cement Industry environment (which includes the two cases of the study) cultural differences amongst workers would be expected to have a huge impact on the level of conflict in this environment (Swalim, 2000; Newstrom and Davis, 2002; Mayer 2008). This is because the industry includes a number of workers who are Libyans and also others with different nationalities. In addition, case A is managed by a foreign partner. Moreover, the population of Libya is a mixture from four origins: Arab, Amazigh, Tabu, and Tuareg. In spite of this fact, the results of this study showed that
cultural differences among workers have little impact on the level of IPC in this environment. However, this result could be justified by stating that the cultural differences between Libya's population (Libyan workers) are minor because they are all followers of the Islamic religion, and the Islamic religion plays a big role in shaping Libyan culture (Elmogla, 2009). Therefore, Libyan workers from all origins have shared customs and traditions that are based on the principles and teachings of Islam. They are all fluent in the Arabic language because it is the language of their Holy Book and it is the official language of all governmental departments (Ahmad, 2013). Additionally, the number of foreign workers is relatively small in both cases.

The number of foreign workers in case A was 98 workers and the number of Libyan workers was 2,408; thus the percentage of foreign workers is 4% of the total number of workers (2,506). The number of foreign workers in case B was 57 workers and the number of Libyan workers is 3,014; thus the percentage of foreign workers is 2% of the total number of workers (3,071). This small number of foreign workers in the LCI gives the impression that foreign workers have no effect on cultural differences amongst workers and, consequently, no impact is created by this minority on the level of IPC.

6.4.2 Behavioural Factors

6.4.2.1 Threats to status
It is evident from the answers from most of the participants in both cases A and B (36/48 ~ 75%) that the threat to status of individuals’ factor has a strong effect on the high level of IPC in their organisations, as is clear from their answers to the following questions: Is there an organisational structure in your organisation? If yes, when was the last change? Does the change of position for some workers have an impact on the high level of IPC in your organisations?
Figure 6.7: The effect of threats to status on the level of IPC in the LCI

**Threats to Status in case A:**

Most of the answers from the participants in case A (16/23 ~ 70%) confirmed that the threats to status factor has a strong influence on the level of IPC in their organisations (see figure 6.7).

One of the participants from top management (1/2 = 50%) felt threats to status strongly influenced IPC whereas the other TM participant stated that this factor had an impact on creating conflict between individuals but did not consider it as one of the reasons for a high level of conflict in this organisation. The former said “Our company is currently undergoing radical changes at the level of its leadership and its policies. As I mentioned earlier, it attracts the youth and employs them in leadership positions and this does not satisfy others. As a result, it has caused some kind of tension among them, probably high tension, so we have used a strategy of exclusion, or what is known as ‘granting career comfort’ for some workers and for those who were at the door of retirement age, in order to mitigate what we suffer from resistance at this stage” TM-A1.

He also added that “the organisational structure of the company after its integration with an investor is still in the pipeline”. The researcher also viewed a copy of the new structure of the company. The researcher observed that a number of its provisions have not yet been completed.

The second participant at this level stated “Yes, the threat to workers’ status has a
role in creating some tensions among them, but the real reason behind the high level of conflict between the employees in this company is due to, from my point of view, the contradiction between the state’s laws and the desire of company’s chiefs to give high salaries to the Libyan workers such as other nationalities have in this company” TM-A2.

Most of the answers from the participants in middle management (3/4 = 75%), from the participants from shop floor management (6/7 = 86%) and from the participants from the workers’ level (6/10 = 60%) confirmed that the threats to status has a strong influence on the high level of IPC in the company. The following quotations are taken from their answers.

“Yes, there is an organisational structure for the company but it is still in the process of revision and change, so I expect everyone to have a sense of instability especially in terms of their position/status” and then was added "In my view, the threat to position is one of the most important factors which causes the high level of conflict not only among the employees but also between the heads of departments and administration too” MM-A3.

Another said “Yes, the company is still in the process of development in terms of policies and procedures and this, of course, affects the relationships among workers. I receive many complaints and the main reasons are the differences in viewpoints and the method of work among employees, especially after the appointment of many recent graduates who were given the leadership positions in the company without adequate training. They have a point of view and style that are different from other employees, some of whom have over 20 years of experience in this field. This, of course, creates almost daily conflicts” MM-A4.

“Yes, the threat to, or the change of, individuals' positions greatly affects the level of conflict among them. I know a colleague who suffers from many problems in his department which are caused by one of the previous chiefs who still behaves as a person in charge and issues orders, despite the fact that my colleague asked him to take what is known as a ‘career comfort’, but he refused” SM-A2.
‘Career comfort’ was defined by a number of officials in the company (such as TM-A1 and MM-A1) as a vacation with full pay that is given to workers who still have two or three years to retirement, often offered to those who have a negative attitude toward the integration of the company with a foreign partner or to those who are classified as troublemakers in order to reduce resistance to the changes which the company is currently undergoing.

“Yes, the threat to position has a significant impact, in my view, causing a high level of conflict between the employees in the company because most Libyan workers have the desire to dominate and the one who ‘sits on the chair’ cannot give it up easily. The problem is not in the person in charge; it is due to the people surrounding him/her and benefiting from his/her presence in the position. They benefit more than others and thus they are the ones who will create many problems if they ever felt that the person in charge would be replaced by the presence of another official who might not be of benefit to them” WOR-A2.

In general, it can be noted that the threat to status factor has an effect and causes a high level of IPC in case A, as is clearly evident in the answers. However, it could be argued that the factor has a significant impact on the members of middle management (75%) and the members of the shop floor management (86%), more so than on the members of the top management (50%) and on the workers (60%). This may be due to the absence of a clear and stable organisational structure in the organisation, and also may be due to the fact that the company has adopted a policy of attracting new graduates and putting them in leadership positions because of their proficiency in using modern technology and their ability to communicate in English; this fact could have made some of the heads of departments and units in the company feel insecure at work.

**Threats to status in case B:**

Most participants in case B (20/25 = 80%) believed that the threat to status factor has a significant impact causing a high level of IPC in their company. Participants from the top management (2/2 = 100%) did not believe that this
factor had a link to the high level of conflict in their organisation although one of them admitted that the presence of this factor can lead to conflict as a natural reaction. Giving his point of view, he said “It is natural when any employee feels that his/her position is at risk; therefore, their reaction could signify an objection and such a reaction could sometimes be violent. However, I have received no complaints like that yet”. Moreover, he stated that the organisational structure of the company often undergoes some changes from time to time. He described these changes as positive and as representing a kind of development in the company.

The other official from the top management (TM-B2) answered as follows. “It is normal that there are some differences among some workers, and the threat to position factor is possible to be one of these differences. However, these differences, as I mentioned earlier, do not reach such a high level that we should worry about them. Most of these differences are personal or are on family matters and the company has no role in such cases”.

When this official was asked about the organisational structure of the company, he said that there was an organisational structure and that the researcher could have access to view it from the Department of Administrative Affairs. Meanwhile, he contacted an employee who forwarded a copy of the organisational structure to the researcher. The employee pointed out to the researcher that this organisational structure was old and had not yet been amended to include the changes of the last seven months because the Secretary of the General People's Committee of Industry had changed. Hence, this organisational structure is the most recent copy that the company owns.

Most of the participants from middle management (5/6 = 83%), from the shop floor management (7/7 = 100%) and from the workers’ level (8/10 = 80%) believed that threats to the status of employees have a strong influence on the high level of IPC in their organisations.

One of the officials from middle management (MM-B5) complained about the ‘lack of managerial stability in the company’, as he put it. It was noted that he was
not discreet in his answers and he spoke with anxiety. He said “The Company suffers from managerial instability in the procedures and policies and this is due to the semi-continuous and unstable changes in state policy because this company actually follows the state’s policy. Therefore, our company is affected by any changes in the policy of the state especially in terms of economic prices. For example, the pricing of cement was previously determined by the state itself because the company was formally a subsidiary of the state until 2005, but after that the company itself became responsible for the pricing of cement bags. However, the pricing of cement is often set by orders from the Secretariat of the General People’s Committee. As I said, the company's policy is changeable since it is associated with the policy of the state. Accordingly, the organisational structure of the company is unstable. Sometimes some departments or administrations are cancelled and sometimes new jobs are created that are unnecessary from my point of view”. He added “Often, the updates in the organisational structure are influenced by political agendas such as creating new jobs to employ members of the Revolutionary Guards of the Government for the purposes of control and security. Also, the organisational structure is affected by the personal interests by some of the leading officials in the company, so that they can employ their relatives or their friends who give their loyalty to the President of the Board of Directors. Thus, the threat to position is present and plays a big role in the production of persistent and violent conflicts among the workers, and it also takes the form of a collective threat because every official has their own supporters and opponents” (MM-B5).

Similarly, one of the officials from the shop floor management stated “Yes, the threat to the position of workers results in intense struggles that can cause violence not only among individuals but also among groups. This is due to the overwhelming chaos caused by quasi-periodic changes in the organisational structure in the company which results in the desire of others to occupy administrative positions while the current officials seek to cling to their positions. Also, these new candidates have close friends and relatives who hope to have special privileges granted to them by these candidates. So, we find that conflicts are at high level among the workers even when they just hear of a rumour of a
possible change in the organisational structure of the company, as a result of, for example, a change in the head of ... Company which has the largest proportion of the company's shares, or as a result of a change in the Secretary of the General People's Committee of the State’” (SM-B2).

One of the workers stated “Yes, the fear of a threat to position causes big problems among colleagues. For example, we find that some of them conceal information from other colleagues in order to preserve his/her privileged position. There are also others who spread malicious rumours about their colleagues in order to prevent them from taking authority in the event of any incident happening to the supervisor. In addition, there are those who fight you and try to record any tiny mistake you might make only because you hold a higher degree than him/her and you could possibly be their boss one day’. He concluded by saying “Yes, the threat to position, from my point of view, is one of the most important causes of conflict among the working groups in this company” (WOR-B1).

All in all, it was noted that some participants from the top management and middle management said “It is normal when an individual feels that their position will change or that they will ‘go down the ladder’ for them to act violently against others, but I do not think, as I said earlier, that the level of conflict in the company makes us worried about it” (MM-B3). It was noted that these answers by the participants had some contradictions. On the one hand, they refused to state that the threat to position factor has an effect on the high level of conflict in their organisation but, at the same time, they recognised that it results in conflict among workers, and TM-B1 and MM-B5 described this as violent conflict. Therefore, it can be confirmed that the threat to status factor has a significant impact and can have a huge impact on the high level of IPC in this case. This is evident by the quasi-unanimity at all levels of analysis, despite the rejection of the impact of this factor by some participants. Also, there is a strong impact in case B caused by the changes that occur because of the state’s policy, especially those policies coming from the Secretariat of the General People's Committee of the Industry.
**Discussion on the threats to status in the LCI**

Based on the above, the results of the study showed that the factor of threat to position has a strong influence on the high level of IPC in the Libyan Cement Industry due to the following reasons:

- The lack of a clear and consistent organisational structure for case A (as it is still in the pipeline) while the organisational structure for case B is characterized by instability; this fact was confirmed by most of the participants from case B in the study. Also, the researcher viewed the organisational structure of case B and noted that it did not contain ‘a manpower planning department’. One of the administration officials stressed that the company's organisational structure is characterised by ‘relative instability’ (as he put it) thus it needs to be updated from time to time and they are currently in process of doing so.

- The instability of the political environment in the Libyan state and its strong impact on the working environment of the Libyan cement industry. This point is supported by the studies of Alorafi (2010) and Sabow (2011) who note that the Libyan political environment is characterized by instability and that it has a negative impact on most organisations in Libya.

In general, this result confirms the results of some previous studies such as Newstrom (2007); Newstrom and Davis (2002) and Fayath, (1991), all of whom found that the factor of threat to position has a strong impact on the occurrence of conflict in organisations.

**6.4.2.2 Lack of trust**

The results from the interviews undertaken in both case studies (A and B) showed that a lack of trust is one of the factors that cause IPC in the Libyan Cement Industry. The researcher asked the participants the following question: “Do you think that there is a feeling of a lack of trust between employees in your organisation? If so (why), and has the lack of trust between employees affected the level of conflict among them?
Lack of trust in case A:

All the respondents in case A believed that a lack of trust among employees is one of the causal factors of IPC in their company.

All of the respondents from TM (2 out of 2) and from the MM (4 out of 4) thought that a lack of trust exists within the company and they believed that this was due to contradictions between the state laws and the policy of the company, as well as the non-payment of the 10% of the company shares to the eligible beneficiaries (which are the Libyan employees) in the company.

In this regard one TM stated:
"Yes, there is a sense of a lack of trust and mistrust in top management which has resulted in many problems (including a complaint to the Association of Producers) due to the non-payment to the workers of the company's shares [10%] as well as the unequal wages of the Libyan workers as compared with those their foreign counterparts earn. However, this doesn't relate to the regulations and policies of our company, but is due to the state imposing on the company that it must pay Libyan workers according to the Law on Salaries No. 15 while the foreign workers are paid a salary in accordance with the employment contract. Furthermore, new management have tried, at the beginning of their operation, to pay Libyans fairly but part of their payroll was returned by the General Treasury of the Libyan state in order to accord with Salary Law No. 15. But the new
administration had a "genuine desire" to raise employees' salaries for the Libyan, so we added the item "additional outside of work hours" to the employees' salaries for the purpose of raising their salaries" TM-A2.

One of the MM stated:

“Certainly there is a lack of trust by many employees not only because of non-payment of the 10% of the profits of the company's shares to employees, but also because of mismanagement. Furthermore, the process of bringing in radical change in the company has not been studied enough and was implemented under a vague ideal which has increased the feeling of a lack of trust in the new administration and, in turn, has created a conflict within the company which disappears for a while and then comes back again, especially when distributing the profits of the company at the end of the year” MM-A3.

There is agreement between all the employees in the company that there is a large gap between the Libyan workers’ and the foreign counterparts’ earnings because of the contradiction between Libyan laws and the policies and directions of the company. The respondents from top management stated that they have had much correspondence on this matter with the Secretariat of the Treasury and the Secretariat of the General People's Committee which promised to amend Salary Law No. 15 but until now it remains unaltered.

All the participants from the SM (7 out of 7) and the WOR (10 out of 10) were in agreement that a lack of trust between employees has an impact on the level of IPC within the company, this being a result of the feeling of injustice due to the Libyan workers’ salaries not being equivalent to the foreign counterparts’ salaries.

In this regard, some of them stated that:

“Yes, there is a feeling of mistrust between the workers because of a lack of equal remuneration for Libyan workers compared to the salary received by their foreign counterparts, resulting in deep problems between them” WOR-A5.

“These problems include a lack of trust among the workers due to the injustice in the distribution of salary since a foreign worker earns three times what a Libyan
worker does even though they are both academically equal. I think this is due to the restrictions of Law No. 15 for Libyan workers’ salaries ... all this has caused a kind of hatred towards the members of the new management and those who support its policy” SM-A6.

15 out of 17 (88%) from SM and WOR believed that a lack of trust between the employees is due to the non-payment of the 10% of the profits from the company's shares to the employees, as was done before the integration of the company with the new investor.

The following are some of their answers:

"Yes, there is a sense of a lack of trust in the administration because of the non-payment of salaries for engineers and technicians that are equal to their foreign counterparts, as well as there being no justice in the distribution of compensation payments at the end of the year and staff not being paid 10% of the profits of the company's shares as previously. This has caused considerable aggravation and, as a result, some of the Libyan workers tried to stop the production line in some plants” SM-A2.

"How do you want me to trust in a management or in policies that have prevented me from receiving my right to 10% of the company shares" WOR-A8.

4 out of 7 (57%) from SM indicated that a lack of a stable organisational structure and management had resulted in the sense of a lack of trust among the employees in the company.

In this regard, one SM stated that:

“A lack of trust, in my view, is due to the instability of the management in the company. There is not yet a clear organisational structure in the company which has a direct impact on the work” SM-A5.
6 out of 10 (60%) from the WOR believed that the lack of trust factor is due to poor communications between workers and the administration officials as a result of the language barrier.

In this regard, WOR-A9 stated that:

"We cannot communicate directly with the administration officials because we cannot speak English so our supervisor translates for us if we meet one of them but, unfortunately, we do not know if what is translated to them is our request or other issues rather than our request".

Based on the above, it can be summarised that the reasons behind the emergence of a lack of trust among employees (as one of the causal factors of IPC) in this case consist of the following:

- The sense among employees of a lack of justice as a result of the inequality between the salary of the Libyan employees and their foreign counterparts. This has been justified by some TM and MM (i.e. TM-A2, MM-A3 and MM-A4) as being due to the contradiction between the Libyan laws and the policies of the company. Some of them stated that the company has a desire to increase the salaries of the Libyan workers but that Libyan Law No. 15 (1981), on the salaries of Libyan workers, stands as a barrier to achieving this;

- Failure to pay the 10% of the company's profits to the employees who are “owners” of this ratio;

- Poor communications in the company as a result of the language barrier.

**Lack of trust in case B:**
The majority of TM (1/2 = 50%), MM (5/6 ~ 83%), SM (6/7 ~ 86%) and WOR (8/10 = 80%) believed that a lack of trust between workers in this case has a role in the increase in the level of IPC (see figure 6.8). Presented below are some of the responses.
“A lack of trust is something natural. It happens because we are human beings; there is fear of the unknown and also an unclear vision about changes in the organisational structure of the company. So I expect that a lack of trust has a role in the occurrence of some conflicts between some individuals in the company” TM-B1.

“Administrative instability has generated much negative behaviour including the feeling of a lack of trust among workers as a result of some fear about their position in the company, and this conflict can lead to violence and clashes between them” MM-B2.

“There is competition for the powerful positions in a changing company structure which creates an atmosphere of mistrust and hatred between employees and causes a lot of problems inside the company” SM-B4.

"Of course, a lack of trust between individuals has a role in generating many conflicts in the company, but mostly it is caused by competition for the powerful positions in the company” WOR-B1.

“How can anyone ask me to trust someone who hides information from me for fear that it authorizes me to supervise or to direct some lines of production in the factory” WOR-B6.

The majority of respondents (80% = 20/25) in case B emphasised that a lack of trust plays a significant role in the IPC in the company. When analysing the data in this case it can be noted that the lack of trust factor was caused by:

- Administrative instability in the company due to the almost constant changes in the organisational structure as a result of the changes in administrators in and by the Ministry of Industry;
- Fear of employees of losing their position in the company;
• Poor communications between workers and their administrators. It was noted from some answers at WOR level that there is a sense of a lack of trust between workers and their managers. As illustrated below:

“…our boss does not usually deliver all the information to us, especially information that is beneficial to us such as…” WOR-B2

“We are not informed of anything that is of benefit to us; we know this through our colleagues from other departments when it is too late. Our supervisor only issues orders to us” WOR-B9.

Discussion on the lack of trust
Interviews undertaken in case A and case B reveal that a lack of trust between individuals in the companies has an effect on the level of IPC in the cement industry in Libya. This result confirms the findings of a number of previous studies (such as Newstrom (2007); Maher (2004) and Newstrom and Davis (2002)) wherein these authors found that a lack of trust is one of the factors which has an impact on the IPC within the organisations.

6.4.2.3 Incivility
According to a number of management authors (such as Pearson and Newstrom (2007) and Pearson and Porath (2005)), incivility in the workplace is regarded as negative and deplorable and as unacceptable behaviour by everyone because it leads to conflicts amongst individuals inside an organisation.

The results of this study show that most respondents in both cases A and B (29/48 = 60%) believe that incivility has an effect on the level of IPC in the Libya Cement Industry. This was clear through their answers to the following questions: Is there any harassment that you face from colleagues that disturbs the performance of your business? Are there people in the organisation that can be described as uncivil and disrespectful towards their colleagues? If yes, in your opinion, do you believe that they have an impact on the level of conflict between individuals in your organisation?
Incivility in case A:
The results of the study show that most participants in case A (16/23 = 70%) believed that the incivility factor has an effect on the level of IPC in the company. Figure 6.9 presents a breakdown of the results for both cases.

All participants from top and middle management (100%) believed that the incivility factor has a significant impact on the level of conflict between employees in the company. TM-A1 said:

“*We suffer from troublemakers who incite others to sabotage and stop the work in the factories in order to put pressure on the company to pay them 10% of the profits of the company, but the foreign partner who owns more than half of the company's shares is not obliged to do so under the law because the terms of the contract, which was signed with the previous management of the company, does not include this item. The company has, therefore, failed to persuade the employees to give up this requirement. Accordingly, the situation keeps calm and settled for a period of time and then becomes unstable again*.” He also added “*Yes, I consider these people as one of the most important annoyances in the company. There are some colleagues who understand the legal situation in the company and these people are harassed by other employees and accused of being*
biased in favour of the administration of the company. We receive many complaints against them from their colleagues”.

A participant from middle management said “The company suffers from troublemakers who encourage others to conduct uncivilized behaviour in order to demand their rights; they have no respect for people even their bosses. However, we empathise with their position and understand that they are oppressed, and that Law 15 (on the system of salaries and wages for employees in Libya) must be changed by the state as soon as possible because it is unfair on Libyan workers, particularly after the opening of the state to the outside world. We have contacted many bodies, including the Secretariat of the Treasury and the Secretariat of the General People's Committee, to allow the company to increase the salaries of the Libyan workers so that they are closer to what a foreigner earns, but to no avail ...”. And then he stated “Yes, it [incivility] has a significant impact on the level of conflict inside the company” MM-A4.

The phrase “We suffer from troublemakers” or “The company is suffering from troublemakers” was used by 4/6 of the participants from top and middle management. In this regard, much distress and tension is caused by these troublemakers to the company’s administration, particularly as the administration cannot dismiss them from work. That is what TM-A1 stated on this point:

“The company’s administration prefers not to discharge any of the workers, especially at this critical stage, for fear of turning their dissatisfaction with the laws and regulations to resentment towards the existence of a foreign partner; this is not to the benefit of the company nor the state. So, there are orders by the management not to dismiss any worker. At the same time, they encourage the employment of new graduates particularly those who know how to communicate in English”.

Most participants from the shop floor management (5/7 = 71%) and half participants from the level of the workers (5/10 = 50%) believed that incivility has
an effect on the level of IPC in their organisation. The following are some of the participants’ answers to the questions in the study.

“There are some employees who waste time at work through chatting, gossiping and by telling jokes; the matter that makes others confused and unfocused in their work. Also, there are those who invite and attract some of the workers around them for the purpose of sedition against the administration of the company, and there are those who smoke at work which causes discomfort to others”. SM-A2

“Yes, I receive a number of complaints from some workers against their colleagues because of the gatherings and chats during work time which is unacceptable. Also, there are those who bother others by smoking during work. We act on things like this with appropriate disciplinary action such as sending warning messages not to repeat such things, and where he/she does it again, then he/she faces a two-day deduction from their salary or he/she might be deprived of overtime bonuses. If he/she carries on doing it again and again, details of his/her behaviour is sent to the top management level that form a disciplinary committee to discuss the actions that will be taken against him/her”. SM-A3.

“There are some annoying people who come from other departments to visit some colleagues. They start talking together loudly and telling jokes that are sometimes unacceptable, so I leave the department until they go out” WOK-A8

“There are some troublemakers who come for the purpose of taking down the signatures of workers on a document in order to claim the right of equality in salaries with foreign workers and, when I refuse to sign, they accuse me of being biased in favour of the administration of the company. They are wasting their time and causing disruption at work because the administration of the company cannot do anything with regard to the salaries; we are oppressed by the laws of our state and not by the administration of the company”. WOK-A3.

It was observed that there are “No Smoking” signs in the passage ways of the company and the factories and in front of the offices. The researcher only saw two
workers smoking inside company buildings (this was near the toilets) and, additionally, some others smoke outside the buildings. This confirms that there are strict procedures against those who do not abide by the regulations of the company, according to what SM-A3 and SM-A1 have stated:

"There are some problems that occur as a result of smoking in offices but we punish anyone discovered smoking inside the company buildings". SM-A1

**Incivility in case B:**
Most respondents in case B (13/25 = 52%) believed that incivility has an influence on the level of IPC in their organisation.

All the participants from top management (TM) (100%) and most of the participants from middle management (MM) (4/6 = 67%) did not believe that this factor has an impact on the level of conflict in their organisation. However, two participants from MM (2/6 = 33%) stated that the incivility factor has an impact on the level of IPC in their organisation.

MM-B3 stated “Certainly, people who are disrespectful to others are present in any place, whether in this company or in any other company. I have lately received a complaint from the financial section in this regard and I am in the process of forming a committee to investigate the matter”.

Most of the participants from the shop floor management (SM) (4/7 = 57%) and from the level of the workers (WOR) (7/10 = 70%) believed in the influence of the incivility factor on the level of IPC in their organisation. Below are some of their responses.

“We suffer from some annoying workers especially those who belong to the Revolutionary Guards. They interfere in our business and try to impose their views on us. One day, one of these Revolutionary Guards came and asked me (more like a command) to dispose of a large amount of cement liquid for one of the companies and he told me to act secretly and as quickly as possible for
security reasons. I told him to bring me a written request from the head of the factory to dispose of this amount and he left the department angry and threatening to dismiss me for being non-cooperative” SM-B6.

“What irritates me the most is the group of Revolutionary Guards who are in charge of security in the factory. They are very annoying. I feel that they are constantly watching us and counting our breath; therefore, we always try to choose our words and topics carefully in their presence” WOK-B7.

“There are some workers who can be described as ‘very social’ workers. We frequently find they have constant visitors and this annoys colleagues, especially if this visitor comes from outside the region [from a different area or city]. This means that the visitor will stay with them until the end of the official working hours” SM-B2.

“We receive some complaints against a number of workers who smoke on site. This exposes them and the other workers in the factory to a huge risk” SM-B4.

“Most individuals whom I have problems with are smokers. They are careless and they do not comply with instructions and I also have problems because I am very allergic to the smell of smoke” WOK-B6

The researcher did not notice any no-smoking signs in the workplace in case B but the researcher obtained a publication produced by the national company's administration (which has the code M/12/2005 and is dated 12/2/2005) which prevents smoking inside offices and departments and in all places of work in the company. However, the researcher observed during her attendance at a number of the factories and at the company’s headquarters that there were a few workers who were smoking as if they were allowed to smoke in those premises. The researcher passed this notice along to a member of staff in the shop floor management, who commented:

“Unfortunately, this is the reality of our organisation. We have regulations in the company which, if applied strictly, then the work will go smoothly and without
any obstacles but, as long as the officials in the administrative hierarchy do not apply the laws because of favouritism and received compliments, then there will be no justice in the application of the law and there will be no proper administration of the company. In the past, I have tried to apply the regulations onto the workers under my supervision but I found that the rest of the sections do not apply the regulations; therefore, I became no longer interested in doing so.” SM-B5.

Discussion on incivility
The incivility factor appeared to be a larger problem in case A (70%), certainly more so than in case B (52%) despite the rigorous application of regulations (particularly when one looks at smoking at work in case A (see SM-A3) as compared with case B where smoking was implicitly almost allowed, as stated by SM-B5). The reason for this is due to the fact that case A suffers from stiff resistance to change by the employees which results from the conflicting laws and regulations of the state (especially Law 15 on salaries which conflicts with the policy of the company in wanting to grant its employees fair salaries that are equal to the salaries of foreigners (who are paid according to contracts and not according to the laws of the Libyan state) (see MM-A4’s answer).

Overall, the results of the study show that the incivility factor has an impact on the existence of conflict in organisations. This result matches the findings of Newstrom (2007) and Pearson and Porath (2005). Additionally, this study also reveals that the incivility factor is one of the factors causing a high level of IPC in the Libya cement industry.

6.4.2.4 Unfair treatment
Unfair treatment refers to many issues. One example is that some organisations have a strong status difference between managers and non-managers (workers) (Assaf, 2004). For example, managers may have flexible schedules, be allowed personal telephone calls at work and have longer lunch hours which are not available to other employees. This may lead to resentment and conflict. However, in these case studies the main issues that were brought up with regard to unfair
treatment were on the distribution of wages and opportunities for training and rewards.

A reward system refers to the “business practices of offering rewards, benefits over and beyond wages, salaries, and other monetary compensation to recruit, [satisfy] and hold desirable personnel” (Cross, 1999: 314).

London and Higgot (1997) describe a reward system as being “likely to increase employee energy and productivity. It is associated with motivating all staff members’ performance to realise the organisation's strategic goals and create a supportive culture and structure”.

This theme examines to what extent there is unfair treatment and also the role of unfair treatment in IPC. Responses to interview questions on this theme showed that unfair treatment amongst the employees in both case studies affected both companies and, accordingly, enhanced the IPC. This unfair treatment included:

- Low wages: unfair wages between employees in the same class;
- Lack of rewards and benefits;
- Unfair Opportunities for training.

Furthermore, the results of the interviews showed that unfair treatment is one of the main factors causing conflict between employees in the Libyan Cement Industry. The following question to the respondents in both cases A and B has been asked.

“Do you believe that there is unfair treatment between employees in your organisation and that this, in turn, has an effect on the level of conflict between them?”

Figure 6.10 presents a breakdown of the results of the responses to this question for both cases.
Unfair treatment in case A:
All the respondents in case A thought that unfair treatment between employees was one of the main factors affecting the level of IPC within their organisation because Libyan workers do not receive equivalent salaries to those given to foreign employees in the same position.

One TM stated that:
“There is inequality between the Libyan wages and those of their foreign counterparts. This is because, according to Libyan regulations, the company has to pay Libyan workers according to Law No. 15 on salaries whereas the foreign worker is paid his salary in accordance with the contract that has been made between him and the company”. TM-A1

In the same vein another TM added:
“The new management, at the beginning of its operations, tried to pay the Libyans fairly but this attempt was refused by the Ministry of Finance of the Libyan State because it did not match salary Law No. 15”. TM-A2

MM-A2 stated:
“Yes Libyan workers feel they are treated unfairly as a result of non-payment of equal salaries for engineers and technicians - that is equal to their foreign counterparts - as well as feeling that there is no justice in the distribution of rewards at the end of the year and no justice in not being paid 10% of the profits
of the company's shares as previously. This has caused considerable conflict and there has been an attempt to stop the production line of location 1”

4 MM and 5 SM mentioned that unfair treatment contributes significantly to the high level of conflict. They believed this was because of a lack of clear criteria for the disbursement of the rewards and bonuses and also in the selection of who is worthy for training abroad.

WOR-A3 stated:
“Unfair treatment results a lack in company policies and instability. For example, they send some employees abroad for training then suddenly stop the role of the training programme. Also our rewards for the end of the year have not been paid yet and when we complained they said that management hasn’t given us your name on the bonus listing so we thought that you did not deserve the bonus”.

However, most of the respondents from TM, MM, SM and WOR agreed that the failure to regulate these matters was due to the instability of company policies and the absence of a clear and stable regulatory structure and the times where a member of staff is assigned for certain tasks temporarily also due to the obvious contradictions between the organisation’s policies and the state’s laws.

“I believe that the lack of a clear and stable regulatory structure in the company has a relationship with the employees’ sense of unfair treatment due to instability in the policies of the management responsible for training and due to constant change, such as changes in administration leaders”. SM-A1

Unfair treatment in case B:
All the respondents from TM and MM in case B did not believe that unfair treatment amongst employees in their organisation had a big effect on the level of IPC because they believed that the management in the company provided opportunities for promotion, good facilities and training courses fairly for all the workers.
As with case A, the majority of SM (6 out of 7) (86%) and the WOK (8 out of 10) (80%) agreed that unfair treatment is influential in raising the level of IPC within the company. The majority of the respondents from SM (86%) and the WOK level (80%) emphasised that unfair treatment has a big role in increasing the level of conflict between the employees, similar to that created by the sense of injustice felt on the disbursement of salaries. Also, the data collected from the interviews revealed that due to the absence of a clear reward system within the company there is favouritism and mismanagement in allocating rewards and overtime. Individuals were also unwilling to accept added responsibilities.

The following are some quotations from the answers of the SM and the WOR on this matter.

“There are no rewards and benefits available to the employees; just salaries only and the rewards and benefits are available to the officials”. SM-B7

WOR-B6 stated:

“Having a rewards system is very important for the employees. It gives them an incentive to work and this is what works all over the world” and added “In this company there is no reward system (for us). It is offered to some staff, but not for efficiency and hard work, which causes a lot of clashes and increases the level of conflict between us”.

One WOR noted that:

“The reward and benefit system is only on paper with no implementation by this company. Moreover, there was overtime work but it was stopped”. WOR-B2

SM-B2 added, in this regard, that:

“Earning money is one of the strongest reasons behind the motivation of people to work hard” and added "This company only gives salaries and the salary is not commensurate with the needs of the employees. This must be considered as an issue".
One WOR-B3 stated:
"Regarding the reward system I can't see any advantages. Even overtime is suspended”. WOR-B3

One SM added:
“Actually, foreign training sessions are limited to relatives of members of the management and to the top and middle management and their relatives”. SM-B3

Also, SM-B1 stated that:
“…some of the benefits are given because of favouritism and the relationship of the certain employees with official, but the management does not give the blame equally”.

Another SM argued that:
“Managers do not want to give benefits to employees even though they work hard. The only reward is presence at brief official functions for some employees and departments”. SM-B6

**Discussion on unfair treatment**

One other important factor investigated within this study was unfair treatment between employees. It was revealed from the interviews in case A and case B that both cases’ employees suffer from unfair treatment which has led to conflict between individuals in the companies. Unfair treatment between employees has a significant role in intensifying IPC. It is concluded from the participants’ answers in both case A and case B that there is actual evidence of unfair treatment; for example, the non-payment of the dividends of 10% of the company’s profits to the Libyan workers in case A, whereas 10% of the profits is given to the Libyan workers in case B. Additionally, there is a lack of clear criteria for the disbursement of rewards at the end of year and in the selections for training abroad.
It was found that in case study A there is a big difference in earnings and salary between Libyan workers and foreign counterparts because of contradictions between the state laws and the company policies.

6.4.3 Financial Factors

6.4.3.1 Limitations in resources and facilities

Resources in an organisation include money, supplies, space, materials and equipment which are all important for everyone. Workers in organisations where these resources are scarce have to compete and this causes conflict (Mullins, 2007). One study found that competition for limited resources and facilities often leads to negative conflicts (Hitt et al., 2006).

The results of this study revealed that the majority of the respondents from both cases (29/48, 60%) believed that limitations in resources and facilities have an effect on the level of IPC in the LCI. This conclusion is based on the answers of the study participants to the questions:

- What do you have as resources (such as supplies, materials, equipment and services) in your company? And are they enough and available for all workers?
- Do you think that a limitation in resources and facilities has an affect on the level of conflict among the workers in your organisation?

Figure 6.11 illustrates the answers of the study participants’ on the impact of the limitation of resources and facilities on the level of IPC in the Libyan Cement Industry.
Limitation of resources and facilities in case A:

All the participants from TM and MM in case A believed that a lack of resources and facilities has no effect on the level of IPC in their company.

In this regard, TM-A1 said that:

“In fact, there are shortages in certain resources and services in the company because the firm is still in the process of renovation after its merger with the new investor; therefore the organisational structure of the company is not yet complete. We are also facing some financial and organisational problems which are normal issues at this stage as the company is in the process of formation and the obligations are usually many at this stage. However, I expect that this will disappear in a short time” and he added “No, I do not think this will affect the conflict between the employees”.

MM-A2 also stated that:

“No, I do not think that a lack of resources and facilities has an impact on the level of conflict between the workers. The company provides most of the requirements needed for the workers of materials and facilities, such as English language courses in the evening time, in addition to a clinic for company workers and safety equipment (such as fire extinguishers and clothing to protect workers from the risks from, and the extreme heat generated by, the furnaces”).

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Figure 6.11: The impact of the limitation in resources and facilities on the level of IPC in the LCI
Most of the respondents from SM and the WOR (15 out of 17) (5 SM and 10 WOR) believed that limitations in resources and facilities have an impact on the level of IPC. One SM and four WOR mentioned that there was a shortage of drinking water on production sites where there is extreme heat.

In this regard, WOR-A5 said:

“Heat on this site is very severe and we need large quantities of drinking water. However, only a limited quantity comes from the administration and some people are taking more than they need leaving the rest suffering from thirst. All of these aspects cause problems; therefore some workers leave this department due to the lack of water”

SM-A1 also noted:

“We suffer here from a lack of drinking water. The responsibility for this insufficiency is the public relations department who are in charge of the provision of drinking water on the production sites. Personally, I have communicated with them to ask them increase the quantity and have informed the administration but it is useless”

2 SM and 2 WOR expressed their dissatisfaction with the stopping of specialized courses in their field and limiting the attendance on them to the heads of manufactories and to the close friends of top management.

In this regard, SM-A3 said:

“Most of the courses currently available are limited to improving the English language of workers, while external specialized courses are limited to officials of departments and heads of manufactories and close friends of top management”

In addition, 3 WOR and 1 SM complained of deficiencies in the maintenance of some of the company's facilities, such as the company toilets.
WOR-A6 said:

“Come and see for yourself the bad condition of the company’s toilets, how the locks are broken and there is no water to wash for prayers. We are used to bringing water from our homes for ablutions”.

A number of SM (2) and WOR (2) spoke of the need to develop computer facilities, whilst others pointed out that the company's office furniture needed to be renewed.

A WOR said:

“Look at this chair that I sit upon. It is in a deplorable condition; this is part of the company's furniture in addition to the old computers. As you know, all this will reflect negatively on the psyche of workers, especially if they work in an environment like this”. He added “It is like we are in the era of the Middle Ages. We hoped to change the company’s furniture and computers in the era of the new administration; however this has not happened so far”. WOR-A2

The researcher observed, whilst roaming within the company, that the furniture in the headquarters, offices and production sites was generally in a modest condition. However, there was some furniture that needed to be repaired or changed because of its bad condition. It was also noted that some of the company’s toilets were in a bad condition and that they had no water. All of these facts could impact on the health of the workers, on their satisfaction, and on their productivity as well as impacting on the level of IPC.

From the above, it can be concluded that the majority of respondents in this case (15 out of 23 = 65%) contended that the limitations in resources and facilities have an impact on the level of IPC in case A.

**Limitation of resources and facilities in case B:**

The majority of the participants from TM (2 of 2) and MM (5 of 6) believed that a limitation in resources and facilities has no effect on the level of IPC in their company. In this regard, one of them said the following:
“There is no shortage of materials or services in the company. There are internal and external courses for workers in various disciplines. Additionally, the company provides general safety equipment and personal protective clothing and pipelines to extinguish fires. There are also regular courses every three months on methods of protection and on the prevention of risks in this industry” TM-B2.

The majority of SM (5 of 7) and the WOR (8 of 10) (in contrast to the answers from the majority of TM and MM) believed that a limitation in resources and facilities has an impact on the level of the IPC.

2 SM and 3 WOR noted that there was a lack of safety equipment within the company and 3 WOR mentioned that the safety equipment needed to be developed.

“The company suffers from a lack of a number of safety equipment from time to time because of the difficulties in its importing processes” SM-B3.

“We are used to a lack of personal safety equipment; therefore some of the workers prefer not to wear them. From my point of view the equipment needs to be developed and to be of a higher quality so individuals feel that they are actually protected” WOR-B3.

In addition, one MM, 3 SM and 3 WOR pointed to the existence of mismanagement in the process of selecting candidates for training courses.

“There is a training course in the company, but it is undertaken by turn, because it is seen as a reward or as some type of comfort for the worker,...it is not according to the company's need” WOR-B4.

“My colleague had reached his turn of taking a course which was not related to his speciality but which was related to the nature of my work so I asked him to give me his turn, but he refused, so I talked with our head of the department and he advised me to submit an application for management training. However my
request was answered by rejection because I took a course last month and it is not my right to claim this session as well, even though it is related to my speciality”. The WOR added “Mismanagement of the company's training process causes a lot of problems and generates hatred between the employees. Therefore, the training administration needs to place the right person on the right training”. WOR-B7

One of the MM also mentioned that:
“Actually limited resources generate severe conflicts especially the foreign sessions in this company which are very specific and which are limited to people who are close friends of the top management officials. Competition for these is very considerable” MM-B5.

SM-B7 also stated:
“The important and basic courses are for those people who are close to the management and often we do not hear about them until they are over or it is too late to apply for them”.

Discussion on the limitations in resources and facilities
Another important factor explored within this research is the limitations in resources and facilities. The data from the interviews revealed that most participants from SM and the WOR, in both cases, believed that a limitation in resources and facilities has an effect on the level of IPC in their organisation. Whereas the respondents of TM and MM considered that limitations in resources and facilities do not affect the level of IPC and that is because of the availability of more resources and facilities and services to both TM and MM.

The limitations in resources and facilities in the LCI can be summed up in the following points:

- There is a lack of drinking water at production sites where the temperature is very high;
- There is a lack of maintenance in some facilities in case A (e.g. in the toilets, furniture, computers, etc.) due to financial difficulties, as pointed out by TM-A1;
• Much personal safety equipment needs developing and high quality safety equipment needs to be chosen for importing into the country for use in such companies as the LCI;
• There is a shortage of specialised courses and those that do exist are restricted to the heads of the manufactories and those that are close to the management. (At this point, it can also be noted that there is mismanagement in the process of selecting candidates for training courses).

In general, without providing appropriate resources and equipment, it is quite hard, if not impossible, to avoid conflicts on resource issues between workers. Thus, conflict may occur when workers cannot reach agreement on the use of these facilities.

Based on the above, it can be emphasised that the factor of limitation in resources and facilities is one of the causal factors of IPC in the LCI. This result matched the findings of previous studies, such as Mullins (2005; 2007); Al-Otaibi (2006); Maher (2004) and Abdolmotalleb (2003).

6.4.4 Organisational factors

6.4.4.1 Role ambiguity
Role ambiguity arises when an employee does not have adequate information on the nature of the work required and his/her responsibility in the organisation (Luthans, 2008). This may lead an employee into conflict with other colleagues as a result of not determining the work and responsibility of each of them clearly (Maher, 2004).

To explore whether employees suffer from ambiguity in the work they undertake due to an incomplete or not updated job description and due to the company's organisational structure open questions were used on ambiguity in the work from their “point of view”. These questions demonstrate their perception and awareness of ambiguity in their work as well as highlighting the effect of ambiguity on the level of conflict within the companies.
To investigate the existence of ambiguity in the workplace and its effect on IPC, the interviewees from the levels TM, MM, SM and WOR in case studies A and B were asked the following open questions:

- Do you have ambiguity and a lack of clarity in the work that you are doing?
- If so, do the ambiguity and the lack of clarity affect the level of IPC between the workers in the company?
- If no, please clarify the mechanism that defines tasks to the employees in their work?

However, all the respondents in case studies A and B believed that there is no ambiguity in the mandated work for the employees in the companies. This was because induction is given to new recruits as the nature of this work means it has high risks.

In this respect, TM-A2 stated that:

“No, I don't expect that someone does not have sufficient knowledge of the nature of his work, since the company's policy is to give all new recruits sets of intensive training. That was done under the previous administration and is still continuing on the same scheme”.

Another TM from case B commented:

“Certainly the organisational structure of the company and the job descriptions for some functionalities need to be updated and we are currently working on that but I don't think that anyone is suffering from ambiguity and a lack of clarity in the work mandated to him as usually a training programme is given for each employee in the company according to the field of specialization and their specific job in the company” TM-B1.

Furthermore, 4 TM, 7 MM, 13 SM and 18 WOR in cases A and B pointed out that all new workers are usually trained for 6 months in all sections of the plants so that they have sufficient comprehensive knowledge of the nature of the work and after that they are then assigned to an appropriate section.
In this respect MM-B1 said that:

“In this company any new worker has to receive training of not less than 6 months in all sections of our plants before he starts his actual work”.

Another MM stated that:

“I do not think that any employee has ambiguity in his/her work because they often receive extensive training before they are assigned to their jobs as the nature of the work in the company’s manufacturing sites is serious. If they do not have sufficient expertise it could cost them their lives” MM-A3.

In this context, SM-A6 stated that:

“In this section we deal with molten materials at very high temperatures; therefore usually new workers accompanies an expert employee with not less than 5 years’ experience to teach them how to protect their self from injury and how to maintain the work facilities”.

In this regard, WOR-B10 argued that:

“In this section every person knows very well his job and responsibilities. The manager also conducts formalized meetings every day to give workers orders and determine the responsibilities. However, there is often disagreement between some employees and attempts to evade tasks without permission from the manager for different reasons such as returning their children home from school or evading cleaning the oven”.

**Discussion on role ambiguity**

Questions in the interviews concerning this theme revealed that all of the respondents from case studies A and B deemed that there is no ambiguity in the mandated work in the companies. Consequently, it is concluded that the role ambiguity has no effect on the level of IPC in the cement industry in Libya despite the common absence of clear and specific job descriptions for posts in the companies.
This result contradicts results determined by many authors such as Al-Otaibi, (2006), Maher (2004), Hellriegel and Slocum (2004), Abdolmotalleb (2003) and Swailem (2000). In these studies the authors demonstrate that ambiguity in role has an impact on the level of IPC in the organisations.

This result can be explained by the nature of the cement industry in Libya which is of a technical nature with specific stages. Therefore, role ambiguity is negated as one of the factors causing IPC in this industry even though there are frequently no specific job descriptions for the posts. This agrees with a study by Almusdy (2007) who shows that workers within technical organisations have less role ambiguity and less IPC than in service-related organisations.

6.4.4.2 Role incompatibility

People living in contemporary society usually perform several roles at the same time. An individual may belong to many groups; for instance, an individual can be an employee in an organisation and, at the same time, be a spouse, a parent and a member of a project within the organisation or outside of the organisation. Subsequently, each group expects the person to achieve specific goals. However, these goals may be incompatible and may cause IPC between that person and some other members of those groups.

Some studies have stated that IPC can occur when an employee receives incompatible orders and directions from more than one manager at the same managerial level, or when an individual performs more than one concurrent role which includes incompatible goals (Luthans, 2008; Hellriegel and Slocum, 2004; Swalim, 2000).

The findings of the research on this theme within this study demonstrate that the majority of the respondents (27 out of 48 = 56%) agreed that role incompatibility has an impact on the level of IPC in the cement industry in Libya. On this theme, the following open questions were asked:

- Do you think that the employees in the company face problems as a result of their different roles in their units or outside?
- Do you receive instructions from more than one administrator? If yes, does this affect your relationship with your direct manager or colleagues?
- Do you come across any problems because you undertake different roles in, or beyond the, organisation?

Figure 6.12: The impact of role incompatibility on the level of IPC in the LCI

**Role incompatibility in case A:**
Interviews with the respondents in case A indicated that 13 out of 23 (57%) believed that role incompatibility has an impact on the level of the IPC in their organisation.

In this regard, 1TM, 2 MM, 2 SM and 4 WOR declared that role incompatibility was due to some employees receiving instructions from more than one manager.

SM-A 1 stated that:

“The lack of commitment of some managers to the managerial hierarchy and their assigning of some workers in my department for some tasks without informing me causes disturbance, delays in work and trouble between the employees in the company”.

In this respect, WOR-A3 added:

“Sometimes the administrator asks me for a particular setup for some machines whereas my direct manager has a different point of view. This situation gets us in
trouble with our direct manager if we did what we were asked. Additionally, this circumstance gets us in trouble with our administrator if we don’t do what we were asked. Certainly role incompatibility causes a lot of problems in the company”

1 TM, 2 MM, 4 SM and 6 WOR thought that many workers suffer from role incompatibility on a daily basis such as when they are forced to leave during office hours to take children home from school.

Another WOR-A8 added:
“After my children started school I struggled almost daily with some colleagues who do not have such a commitment, although our supervisor understands my situation”.

In this respect, one respondent (WOR-A6) commented that he is facing many problems as a result of family commitments which pushes him to request a transfer to another department.

The question was asked as to whether there was any possibility of the company providing this service (taking children home from school) for workers? The answer was it is difficult as the children of workers study in different schools.

Role incompatibility in case B:
The majority of the respondents (14 out of 25 = 56%) in case B believed that role incompatibility has an impact on the level of the IPC in their organisation.

3 SM and 4 WOR stated that role incompatibility was due to receiving conflicting instructions.

In this respect, SM-B3 added:
"The new manager of the factory does not have an obligation to the managerial hierarchy. Additionally, he requests workers sometimes to undertake personal tasks. I have spoken to him about this issue many times but in vain” SM-B3.
“Supervisors sometimes ask employees to work outside the factory which conflicts with the original work plan causing them problems with their colleagues who have to perform their other employees’ work as well as their own” WOR-B9.

Many respondents, such as 2MM, 4SM, 4WOR in case B, noted that role incompatibility is due to social commitments such as taking the children back home from school.

“Most employees in Libyan organisations suffer from role incompatibility due to some family commitments, for instance taking the children back home from school. This requires the Education Secretariat to consider changing the timing of school hours to be in line with Libyan working hours. Such incompatibility in hours, as exists at present, generates pressures and conflicts between workers” MM-B5.

From the above, it can be noted that there is a convergence of answers from respondents in case A and case B whereby 13 out of 23 (57%) in case A and 14 out of 25 (56%) in case B agree on the causes of role incompatibility which are:

- Receiving conflicting instructions from more than one manager;
- A need by many to take their children home from school which clashes with official work hours alongside the absence of public transport in Libya (Safour, 2011).

Role incompatibility has an impact on the level of IPC in the LCI. This result agrees with the findings of previous studies such as Luthans (2008), Mullins (2007; 2005), Hellriegel and Slocum (2004), Maher (2004) and Swailem (2000).

6.4.4.3 Work stress

Previous studies have indicated that work stress is one of the causal factors of IPC in organisations (Luthans, 2008; Maher, 2004). In this respect, Luthans (2008) and Newstrom (2007) state that organisational conflict in all its forms, especially if it is not controlled, results in a sense of stress in employees.
The questions in the interviews on this theme revealed that all the respondents in case studies A and B expressed that they had experienced stress. Moreover, the questions exposed that work stress has an effect on the level of IPC. In this regard, these questions to the respondents in both cases have been asked:

- Do you feel stress as a result of the nature of your work in the company, or for any other possible reasons? Please specify;
- Do you think that work stress has an effect on the level of conflict in your organisation?

**Work stress in case A:**

2 TM, 3 MM, 5 SM and 6 WOR (70%) in case A believed that they are suffering from stress as a result of workload.

In this respect, TM-A1 stated:

“Yes, but I am not the only one who suffers from the stress in this company. I think that a large number of officials in the company experience work stress due to the burden of the job, as we work more than 9 hours per day except for holidays”.

However, 2 TM and 3 MM (22%) thought that they suffered from work stress as a result of complaints by workers against members of the company’s management to third parties such as to a Device Management Controller and to the Labour Union alliance.

In this respect, MM-A4 stated:

“Here we are working under severe psychological stress because of repeated complaints from workers in the company about administrators (including me personally) to a Device Management Controller and to the Labour Union alliance claiming that we prevent them from obtaining 10% of the shares of the company”.

2 MM, 4 SM and 5 WOR (48%) stated that they suffered from stress as a result of the instability of the organisational structure of the company, because of rivals and through fear for their position in the company.

In this regard, SM-A6 declared:
“Yes, we feel anxiety and concern as a result of the instability of the organisational structure of the company as I know many colleagues have been replaced by new youth who do not have sufficient experience in our field. This causes a lot of conflicts in the company where each one tries to protect his position in his own way”.

Presenting a different point of view, one MM, 6 SM and 7 WOR (61%) mentioned that they suffered from stress as a result of unequal pay in comparison to what was paid to foreign counterparts in the company, as well as mentioning their dissatisfaction with the end-of-year bonuses’ system which they felt was unjust.

On this issue, WOR-A2 said:
“We are hard-working workers working in hot temperatures, in cement dust and facing other risks and they are giving us some hundreds of dinars as rewards at the end of the year while our supervisors and directors of departments, who are sitting in air-conditioned offices and travel by luxury company cars, will be paid thousands of dinars. This unjust system puts many of us under great stress. Should we continue to work with the same effort or try to create excuses for absences to look for another job”

Another SM-A2 commented:
“We all feel injustice and tension as a result of our unequal salaries as compared with the foreign counterparts”

In addition, 5 out of 10 WOR (50%) stated that they felt stress as a result of poor communications between the management and company workers caused by language barriers.

In this context, WOR-A1 stated:
“Not being fluent in the English language makes me feel tense and embarrassed especially when one of the engineers from the new management asks me to do
something and I do not understand”. He added that “work stress has an effect on the level of conflict with company”

The respondents in the case study indicated that they suffered from stress caused by conflict between roles. On this issue 3 SM and 5 WOR (35%) stated that they experienced stress as a result of the conflicting demands of family (as in returning their children home from school) and workload; these demands caused problems for them as well as problems with their superiors and with some colleagues.

Also the interviews in this case brought out the fact that the respondents suffered from work stress due to the dissonance of State Laws (Act 15 of 1981) with company policies (in wishing to give high salaries to its employees). This contradiction caused great stress in the company as a result of such unfair treatment.

Moreover, the findings within this theme revealed mismanagement of change by the previous management (which owned 90% of the shares of the company before the merger with new investor), where the previous management did not take into account the workers 10% shares when signing the contract with the new investor. This caused more stress for the workers and led to strong resistance to change which reflects in the conflicts between the workers of the company.

Additionally, there are the issues of the language barrier, high workload, role incompatibility and an unstable organisational structure; all these play a part in the increase of rated stress on the respondents in this case and thus, accordingly, raise the level of IPC in case A.

**Work stress in case B:**

The majority of the respondents in case B (2 TM, 5 MM, 6 SM and 6 WOR) (76%) believed they suffered from stress as a result of workload.
In this context, TM-B2 stated:

“The demand for cement by citizens, contractors and government institutions is extremely high which increases the workload on the company. Everybody wants their order to be at the top of the list which makes us work under great pressure”.

Furthermore, 3 MM, 7 SM and 4 WOR (56%) stated that they suffered from stress as a result of the instability of the organisational structure of the company and its attendant fear for their positions in the company.

In this regard MM-B2 thought:

“As I mentioned previously, the regular changes in the departmental and organisational structure creates a kind of confusion in our work and increases the stress due to the fear for one’s position in the company and such confusion might create duplication in commands placing all work under great pressure”.

On the other hand, some of the respondents in this case study (5 SM, 7 WOR) (48%) stated that they suffered from stress caused by conflicts caused by roles receiving instructions from more than one manager. Furthermore, some suffered from stress as a result of conflict between roles caused by family commitments arising during office hours.

On this issue SM-B2 said:

“As a result of some unstudied managerial changes the individual sometimes faces conflicting orders from different departments; as happened with me recently where the manager of the factory requested an order to be processed for one company but there was a warning from the Finance Department not to provide this company with cement unless we received notification from the financial section. Consequently this caused me considerable stress as to how I should deal with this problem”.

Furthermore, WOR-B4 assured that “many suffer from stress as a result of leaving during office hours in order to take children back home from school and this occurs almost daily. If it’s permitted today it will not be allowed tomorrow. This
problem is persistent as the hours of employment are inconsistent with the end time of school hours and there is no public transportation to solve this problem”.

Discussion on the theme of work stress
The interviews with the respondents in case study B indicated that employees suffer considerably from work stress. There are several reasons for this including workload, poor change management (resulting in a lack of management stability) and continuous change in the organisational structure of the company alongside the fear that some workers have concerning their positions in the company. Additionally, there is role incompatibility whereby some workers receive orders from more than one manager as well as having family obligations which affect their work.

Furthermore, all the respondents in the case studies (A and B) from the TM level suffered from work stress due to workload.

35 out of 48 (73%) respondents in cases A and B confirmed that they suffered from work stress due to workload.

42% of respondents from the two cases pointed out that they also suffered from work stress because of administrative instability and the consequent fear of losing their positions in the company.

20 out of the 48 (42%) respondents in the two cases mentioned that they suffered from work stress as a result of role incompatibility.

Also, 14 out of the 23 respondents (61%) in case A thought that they suffered work stress as a result of the unequal salaries between Libyan workers and their foreign counterparts and also because of a lack of justice in the disbursement of bonuses at the year end.

Additionally, 5 respondents in case A mentioned that they suffered from work stress as a result of poor communication between the department and company
workers caused by language barriers. This factor is not referred to by the respondents in case B.

The findings on this theme reveal that the majority of the respondents in case A and case B declared that they feel stress as a result of the nature of the work in these organisations. Moreover, the results of the study reveal that work stress has an effect on the level of conflict within the two case studies. This result agrees with the findings of previous studies such as Luthans (2008) and Maher (2004) which confirmed that work stress is amongst the factors causing organisational conflict.

6.4.4.4 **Lack of communication**
The factor of communication between workers and individuals within management at different levels is very important in driving the production process in organisations. But the process of communication amongst workers may result in some problematic issues as a result of misunderstandings or because of a lack of clear information. Some writers such as Luthans (2008) and Assaf (2004) confirm that many of the problems experienced by individuals within various organisations are due to inappropriate or wrong communications.

Participants from both companies were asked the following questions: How is the process of communication achieved in your organisation? Do workers in your organisation encounter problems resulting from poor communication or due to a lack of information? Do you think that the factor of poor communication has an effect on the high level of conflict amongst individuals within the organisation?
More than half of all the participants in both cases A and B (25/48 = 52%) confirmed that the factor of poor communication had an impact on the high level of IPC in their organisations. Figure 6.13 shows the summarised answers of the participants on poor communication.

**Lack of communication in case A:**

All participants from top management (100%) and most participants from middle management (3/4 = 75%) believed that the factor of communication has no effect on the high level of IPC in their organisation. One participant from top management, TM-A1, said “We have no problems because communications between the administration and employees and other departments is made via e-mail, and sometimes we circulate leaflets to them”. He also added, “We have a problem in that some workers in the factories are not fluent in English and are not good at using the computer but we overcame that problem through asking their supervisors to translate the emails for them and to communicate information to them. Also, we are trying to get over this problem by conducting computer and English language training courses for workers after official working hours”.

One of the officials from middle management stated “No, we do not face any problems in communicating with our workers. We communicate with the employees via e-mail and direct meetings and convey the directions of the
administration to workers in the factories, and we sometimes translate for them” MM-A1.

Another official had a different answer “Yes, we face the problem of late delivery of information in the course of the company’s administration and this is due to the translation process. I expect that it creates some problems among the officials of departments” MM-A3.

It is clear from the answers from most of the participants from the shop floor management (4/7 = 57%) and from the level of the workers (9/10 = 90%) that the poor communication factor has an impact on the level of IPC in their organisation. The following are some of the quotations from these two levels.

“...This is because the new management depends so much on electronic correspondence and this increases the workload since I have to retype the instructions I receive, especially when these instructions are in English. In addition, I have to print out the forms for overtime work so that the employees in the department can fill out these forms and it is worth noting that most of those employees are not fluent in English. After that, these forms should be sent to the department of finance and sometimes I cannot finish that on time due to workload and time limits; therefore, that creates a kind of confusion and anger in officials and subordinates” SM-A1.

“Sometimes, we receive the instructions translated by the administration; however, we face difficulties in understanding these instructions because of the use of words that non-familiar to us, or because of the literal translation of the instructions. So, I usually prefer to receive the message as it is without being translated in order to understand it better” SM-A3.

“Due to the reason that we are not fluent in English, we cannot communicate with the administration’s officials properly, so the contact person sends our requests to them and does the translation for us in case we meet one of them. However, we do not unfortunately know what is put in the translations, whether our requests were
translated or if something else was said to them and not our requests” WOR-A2.

“Yes, poor communication caused some problems for some of my colleagues in the department of (x). They were not paid for their overtime duties because they did not fill out the new form for overtime work that the administration had sent via email to workers, and that was because most of them do not know how to use the computer so they did not see the form and their contact person did not inform them about the new procedure. That, therefore, caused significant resentment among the members of that section” WOR-A6.

In the above it can be seen that the majority (18/23 = 78%) of the respondents in this case believed that poor communication has an impact on the high level of IPC in their company. Case A suffers from a weakness in the direct communication between the top management and the employees as a result of the process of translating information which means that information can sometimes be received late and sometimes is incomprehensible because of the literal translation. Therefore, this has resulted in psychological stress for some supervisors and has also resulted in confusion and conflicts at work. It was also observed that the TM (8/13 = 62%) do not realize that their organisation suffers from weaknesses in communication which contribute to a high level of conflict. The solutions that have been developed by the company’s administration, such as conducting computer training courses and English language courses, are not currently sufficient but they may reap rewards in the long term. Luthans (2008) argues that the best and easiest way to improve ascending communications (the flow of information from the workers to the administration) and to reduce tensions within organisations can be done through the adoption of an open-door policy by management, by periodic meetings with the staff, and through the use of a suggestion box.

**Lack of communication in case B:**
Most participants in the managerial levels in case B (TM 100%, MM 100% and SM 57%) stated that their company does not suffer from problems in communication and therefore the factor of communication has no impact on the
level of conflict in their organisation. The following are some of the participants’ quotes.

TM-B1 said “Communications between the administration and the rest of the departments and divisions in factories are done by correspondence, as well as through direct meetings with the officials of factories and through their periodic meetings”. Then he added “We have no problems in the company because of communications”.

MM-B 3 stated that “Communications are undertaken according to the sequence of managerial levels; i.e. from the head of the department or unit to the head of the factory and then to the official management and vice versa. We do not have any problems caused by the factor of communication”.

SM-B1 maintained that “We do not have any problems in communications; all instructions and guidance from administration are placed on the bulletin board in the department”.

However, three officials from the shop floor management stated that they suffered from some problems relating to communication; the most important of these were delays in responding to correspondence.

“Yes, we have problems in communications; the most important is the delay in responding to the requests of the department which causes a hindrance to work, especially any delays in bringing in spare parts and drinking water; this creates some problems among workers” SM-B5.

“There are problems which are caused by a delay in responding to our department requests and this is a result of the use of traditional correspondence instead of using emails due to the weak network in this region” SM-B3.

“I believe that the communication process, being dependent on the managerial hierarchy, is very troublesome and it takes a long time. For example, in order to
request maintenance to fix a certain machine or to bring in spare parts for some machines, I must contact my boss who, in turn, contacts the main administration in order to address the administrator of procurement or the administrator of maintenance and this takes more than a month. Therefore, I frequently undertake the routine correspondence (but at the same time I receive permission from my boss) and I go personally to the main administration to finalise this matter in less than a week by using my personal contacts. But this costs me travel and accommodation expenses let alone my concern on my work in the production line that I left behind” SM-B6.

The majority of workers (8/10 = 80%) believed that poor communications in case B has an impact on the presence of IPC in this company.

WOR-B6 answered “There is a problem in communication with the financial administration and administrative affairs because communications with them are done by written requests to our boss. I have an annual bonus which has not been yet added into my account and my colleague has not been paid a Family Bonus. Our boss has a difficult character and we cannot ask him about it more than once. He confirmed that he has sent them and until now we are still waiting”.

WOR-B2 mentioned that “Orders and instructions from the company’s administration come to us directly through our boss and he does not usually deliver all the information, especially information that is beneficial to us such as training courses or bonuses or other privileges as he hides them and lets individuals who are close to him know; this creates a kind of hatred among us”.

WOR-B9 said “We are not informed of anything that is of benefit to us; we know this through our colleagues from other departments when it is too late. Our supervisor only issues orders to us”.

The above discussion illustrates that the majority of the respondents (14/25 = 56%) in this case believe that poor communication has no impact on the level of IPC in their company. It is also evident from the answers of the participants that
communication amongst the employees of this company is undertaken in the traditional manner, and not via e-mail, resulting in delays in responding to the requests of workers. This shows that this case suffers from poor communication in spite of the non-recognition of this fact by the majority of the top, middle and shop floor management levels. Therefore, this has created an invisible conflict between the superiors and subordinates; such a circumstance can be supported by Luthans (2008), Altira (2008) and Elferjani (2004) who argue that invisible conflict is usually generated when there is a difference in the balance of power between the conflicting parties such as a conflict between the superiors and the subordinates (or because of a kind of distrust in the contact person (see WOR-B2 and WOR-B9).

**Discussion on the lack of communication**

Based on the above, it can be observed that both cases (A and B) suffer from poor communications despite the fact that case A uses modern technology in communications (correspondence via e-mail). Case A suffers from late delivery of information to all levels of the administration. This results from the process of translating correspondence from English to Arabic and vice versa (and the translation process is sometimes inaccurate due to literal translation). This issue has created psychological pressure (stress) and has impacted on the level of IPC in case A (see SM-A3 and WOR-A6). This point is supported by Harem (2009) who confirms that unclear information that contains loosely used words which bear different interpretations generally leaves the parties involved in a state of psychological pressure (stress) and can cause conflicts amongst them due to different perceptions. Additionally, case B also suffers from poor communications due to the use of traditional correspondence and also because of the routine used for administrative correspondence which is based on a hierarchy of communication which results in delays in the delivery of information, and thus wastes time (SM-B6).

It can be noted that the participants from the top and middle management in both cases A and B (100% TM-A, 100% TM-B, 75% MM-A, 100% MM-B) do not realize that their companies suffer from poor communication and that this has led
to a rise in the level of IPC in both cases due to a lack of appropriate resolutions to improve and raise the standard of communication amongst the various levels of the administration.

Based on the above, it can be concluded that the factor of poor communication in the cement industry in Libya has an impact on the level of IPC in this industry. This result matches the findings of Luthans (2008) and Assaf (2004) who note that a lack of information due to poor communication does frequently result in conflictual relations in organisations. Therefore, Luthans (2008) suggests that any administration can improve communications through an open-door policy and periodic meetings with the workers.

6.4.4.5 Organisational change
Change is an essential feature of organisations. Nevertheless, change is usually linked to a serious and sensitive phenomenon which has significant impact on organisations. This phenomenon is called “resistance to change” and is usually caused by the mismanagement of change (Wood et al., 2010).

Banat (2009) states that resistance to change has a negative impact on organisations as it may be reflected in the form of a low level in individuals’ performance (lower than previously before the start of the change process). Moreover, it might result in damage or conflict, increasing complaints, withdrawal from meetings and activities relating to the change, as well as slowness in work performance (Newstrom, 2007). A study by Folger (1999) confirms that the problem of resistance to change does not lie in the change itself, but lies in the way it is managed.

Alfaez (2008) found that workers are concerned about their interests and positions in an organisation; this factor as well as a lack of adequate training and poor communications are considered to be the most significant reasons for resistance to change. He also added that one of the disadvantages of resistance to change is the possible outbreak of conflict amongst workers.
The majority of the participants (44 out of 48: 92%) in the two cases indicated that organisational change has an influential effect on the level of IPC. This conclusion was given by the answers of the participants to the following questions:

“Has any change been made to your company lately? If yes, what kind of change is it? And are you satisfied with this change and why? Does this change have any influence on the level of conflict in your organisation?”

Figure 6.14 shows the influence of organisational change on the level of IPC in both cases.

Organisational change in case A:
All of the respondents in case A stated that their organisation is going through a fundamental change in order to develop the level of productivity in the company.

This change was caused by the merger of the Libyan Cement Company with the new investor which owns the largest share of the company's shares. Thus, the new investor has become responsible for managing the company’s production.
Moreover, the change has also caused an alteration in the organisational structure of the company which was still under development during the collection of the data for the study. The researcher received a copy of a prepared draft and has noted that it has not yet been completed and that job descriptions for some jobs have not been set up yet. It was also noted that the names of the incumbents were only stated in some departments but not in all. This aroused the curiosity of the researcher. Therefore, the researcher asked for the reason behind it and received an answer from TM-A1 who indicated that “two individuals were proposed for some positions in some departments; the council of the company, however, has not yet decided who will undertake some of the management posts”. TM-A1 also added that “there were some departments which do not have the appropriate person inside the company for the positions available. Accordingly, in these cases the appointee (who has the job qualifications required) will be selected from outside the company”.

All of the respondents in case A confirmed that the organisational change factor has made a significant impact on the level of IPC as a result of resistance to change by the employees and because of mismanagement of the change.

Nonetheless, the majority of the respondents in this case 52% (12 out of 23) stated that they were satisfied with the change, whereas 48% of the respondents (11 out of 23) were not satisfied with the change. Figure 6.15 shows the extent of the satisfaction of the participants in case A with the change that had occurred in their organisation.
All of the respondents in the TM were satisfied with the integration process since the change, from their point of view, is in the interest of the company and its employees in terms of increased productivity, in development of performance and in gaining experience in the field of advanced manufacturing of cement.

In this regard, one of the TM stated that:

“Yes, as I said previously the company is undergoing a change which is represented by the merger of the company with a new investor. Yes, I am satisfied with this merger because of the fact that it represents a major shift in the company. Subsequently, within a short period of time after the new management had started its work, the company got rid of the problem of dust emission from the company’s factories which was specifically affecting farms in the surrounding area. However, this change has created a conflict between the workers as a result of the change which has occurred in organisational structure” TM-A1.

TM-A2 stated that:

"Yes, I am satisfied with the merger for the reason that it has numerous benefits for the company, including improving our performance and increasing the production capacity of the factories as well as obtaining new experiences. Also, there are big expectations that a new factory will be opened by the company in the city of Sabha. However, a considerable number of workers are not satisfied with this merger". The researcher asked why? Then he continued “First of all, the reason is that the change was set and imposed as an obligation without being
introduced by the previous owner which made the former manager of the company resign because he was not notified about the change in advance. Secondly, the conditions of the workers, who are entitled to 10% of the company’s shares, were not taken into account. These issues have created dissatisfaction and a very strong resistance to change which are reflected in the form of fights, protests and complaints at the Union Producers and police stations, in addition to other issues which we are still suffering from them”.

All of MM confirmed that organisational change has an influence on the level of IPC. Furthermore, it can be observed that 75% (3/4) of the MM participants were satisfied with the change which occurred in the company, whereas 25% of them (1/4) were not satisfied. Two of their answers are given below.

“I think managing the company by a foreign administration will lead to developing the company as well as increasing its production. However, the reason behind the refusal of some people to accept the new administration is because of their unwillingness to develop themselves. Therefore, these individuals are the ones causing trouble for the company. However, as time passes they will adjust themselves to the new administration’s performance” MM-A4.

“I am not satisfied with the change which was obligatorily imposed on us. I believe that there is no need for the merger; where the development of the dust refineries deal was endorsed by the previous manager after the lifting of the blockade allowed the importing of spare parts from the United Nations. However, these refineries were installed after the resignation of the previous manager. Additionally, we always hear about specialized training courses for engineers but up until now I have not got on one because there is not enough money in the company” MM-A2.

All SM believed that organisational change has an effect on the level of IPC. Likewise, most of the respondents from this level (4 out of 7: 57%) said they are satisfied with the change that has occurred in the company whereas 43% (3/7) were not satisfied with the change.
In this regard, one of them said:

“Yes, I am satisfied with the merger of the company because the new management encourages youth and gives them the opportunity to take part in leading positions in the company, e.g., I graduated last year, I was assigned to the company nine months ago and I am currently working as a head of a department. The current management, from my point of view, has given us many advantages including solving the pollution problem” SM-A4.

On the other hand, one of the participants had a conflicting point of view.

“The process of merging our company with the new investor has been undertaken quickly and in an inappropriate and unplanned way which causes several problems. These problems include a lack of trust among the workers due to the injustice in the distribution of salary ... I think this is due to the restrictions of the law no 15 for Libyan workers’ salaries”. And he added “In the past, we did not feel this difference because they used to distribute 10% of the company’s shares to the Libyan workers. Similarly, they used to grant workers a bonus which is given on the Lesser Feast and Greater Bairam which sometimes reaches up to more than 700 DL. Moreover, the company has imposed compulsory leave of up to a year for some former heads of departments; all of these matters have caused a kind of hatred towards the members of the new management and those who support their policies ” SM-A6.

All of the respondents at the workers’ level (WOR) believed that organisational change has had an effect on the level of IPC in the company. The majority of them (7 out of 10: 70%) were dissatisfied with the changes that had occurred in the company whilst 30% (3 out of 10) of the respondents at this level were satisfied with the organisational change (i.e. the merger of case A with the new investor).

"We expected that the new management would take more care of us in terms of offering sophisticated courses, according to his/her speciality. On the contrary, however, sessions abroad are the monopoly of heads of departments and those who are close to the new management, and we only have English courses after
working hours which means I go home at 9pm. I feel that working has become more stressful than it used to be before the new management took over.” WOR-A3

“We expected that the new management would provide us with sophisticated safety equipment and distinctive courses and that it would maintain the factories and the public conveniences of the company which are now in a worse condition than before. Additionally, the number of accidents, in the last period, has increased as a result of work pressure” WOR-A1.

“I think that the problem is not caused by the new administration but is caused by the officials of the previous management because they hid the news of the merger and they imposed it as a fait accompli which has caused many conflicts in the company” WOR-A5.

Change in case A has been caused by the merger of the company with a new investor. This change was not managed properly by the previous management of case A. A number of participants in this case (such as TM-A2, MM-A2, SM-A7, and WOR-A5) stated that the change had been compulsorily imposed on them and the workers were not informed about the change in advance. Additionally, some of them stated that the previous manager had not been notified either about the change (See the answer of TM-A2). One of the axiomatic foundations in change management is introducing change by informing the stakeholders about the change and also by showing its advantages and disadvantages well in advance before the change occurs in order to reduce the likelihood of incurring change resistance. This point is supported by most researchers in management and behavioural science who are interested in organisational change management such as Wood (2010), Banat (2009), Luthans (2008) and Newstrom (2007).

Dahlan (2012) confirms that the mismanagement of change is often associated with violent resistance to change which may result in conflicts between individuals in organisations. This might explain the consensus by all the respondents in case A that the organisational change factor has had a strong impact on the level of IPC. Also, it can be argued that this factor had a role in
raising the level of IPC in this case. Although this change has met with acceptance by all the officials at the management levels of the company (TM, MM, SM), at the same time, it has faced opposition by the majority (70%) at the workers’ level (engineers, technicians and others who do not have official representative leadership in the company). This is because they feel that the change is against their own interests. This stance agrees with Al-Faiz’s study (2008) which concludes that workers are not satisfied with change and they face it with resistance in cases where they feel that their interests are negatively affected.

**Organisational change in case B:**

All of the respondents in case B agreed that change is represented by changes in the senior management leadership and in changing the organisational structure of the company to match the attitudes of the new management.

The majority of the participants in this case (19 out of 25: 76%) deemed that organisational change has an impact on the level of IPC.

All of the respondents from TM (two participants) believed that organisational change had no influence on IPC. They also indicated that they are satisfied with the current change.

![Figure 6.16: The satisfaction with organisational change in case B](image)

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In this regard, TM-B1 stated:

“Yes, there is some change in the organisational structure of the company and this is due to the directives of the new management”. He also added “No, I do not think this change will result in any differences between workers because its only purpose is coordination and regulation”. He further indicated that he was satisfied with this change.

TM-B2 stated that:

“Yes, the company’s management is currently undergoing some changes in some departments and is changing the organisational structure of the company in an attempt to cope with the orientations of the new Board of Directors. Updates have not yet been completed but they are expected to be ready soon”. He added “No, this does not lead to any conflicts among colleagues”.

Most of the respondents from MM (4 out of 6: 67%) believed that organisational change has an influence on the level of IPC. They also stated that they are not satisfied with the change.

“As I said previously, the semi-continuous change in the company’s management is as a result of changing the Minister of Industry who, in turn, appoints his/her close relatives and friends into sensitive departments, such as in financial management and marketing, to ensure that they are loyal to the management”. He also added “This change, which is not based on a long-term vision, will hold a relative stability in the company which, in turn, causes conflicts between individuals and the management levels as a result of worries about positions” B-MM5.

On the other hand, there was another point of view which stated that “change is a normal phenomenon. I do not think it produces disputes and I agree to any change that comes from the leadership of the company” MM-B4.
All of the participants from SM (7 out of 7) and WOR (10 out of 10) deemed that organisational change has an impact on the level of IPC. They also stated that they are not satisfied with the change.

The following are some of their answers:

"Yes, there is constant change made in the organisation without the knowledge of the factories' managers, directors of departments or supervisors and this change is non-meaningful and only serves the interests of the members of the new administration" SM-B2.

"Every officer prefers to work with specific people who he/she brings to work under his/her management". Additionally added was “Yes, constant change in the administration causes confusion and duplication of issued instructions and this is usually accompanied by problems caused among workers" SM-B4.

"Yes, there is constant change in the company at departmental level and this leads to confusion and the issuing of conflicting instructions which causes several problems” WOK-B1.

Organisational change in this case was represented by the constant change in the company’s management as well as the changes in its organisational structure.

The results of the analysis of case B show that the majority of the interviewees believed that organisational change has an influence on the level of IPC. The majority of them (21 out of 25: 84%) were not satisfied with the change because they believed that it is non-meaningful and only serves the interests of the members of the new administration.

It is evident by comparing the results of the two cases that both the cases were facing change at both management and organisational structure levels. It is also apparent that the majority of the participants in case A, at the levels of TM, MM and SM, were satisfied with the change. All the TM and 2 MM in case B expressed their satisfaction with the change in the company since it served their
interests, whereas the majority of MM (4 out of 6) and all the SM and the WOR in case B were not satisfied with the change that existed in their company. Change in both cases caused resistance to change which impacted on the level of IPC; this was as a result of the mismanagement of organisational change in both cases.

Accordingly, it can be declared that organisational change has an influence on the level of IPC in the cement industry in Libya. This supports what previous studies have indicated i.e. Mullins (2007), Newstrom (2007), Maher (2004) and Newstrom and Davis (2002) who state that organisational change will have a strong influence on the level of IPC in organisations as a result of resistance to change by the employees if the change is not properly managed.

6.5 The Main Results and a General Discussion

The results of the study have revealed that the level of IPC in the Libyan Cement Industry (LCI) is at a high level due to several factors including individual, behavioural, organisational, financial and external environmental factors.

By comparing the theoretical framework for interpersonal conflict (IPC) (the conclusions from the literature review) that is shown in figure 3.2, with those factors that emerged from the two case study organisations, a substantial amount of consistency was found but, after analysing and deliberating on the data collected during the fieldwork, new factors relating to IPC were revealed. All the causal factors that emerged from the analysis and the deliberation of the data collected from the Libyan Cement Industry can be summarised as follows.

6.5.1 Individual differences’ factors

6.5.1.1 Age gap
The age gap between workers’ factor has a larger impact on the level of IPC in case A than in case B. This result is due to the new policy that has been adopted by the administration in case A, namely, in attracting young employees and giving them leadership positions because of their proficiency in using modern technology and their ability to communicate in English with the members of the multi-national team management. This factor has emerged prominently from the shop
floor management as compared to the other levels because the old age employees (how were in charges in management before the case A changed its policy) do not accept the orders from their young shop floor management; whereas this factor does not have a large influence on the level of IPC in case B. The IPC caused by age gap in case B is characterized by its hidden and sensitive nature such as the presence of social and cultural restrictions that are represented in showing respect to older people and not discussing them even if the participants who supplied the answers thought these older people to be wrong in their statements and attitudes (see answers of WOR-B3 and WOR-B6 in 6.6.1.1). These social norms are adhered to more in smaller cities as compared to larger cities; this fact is supported by Alorafi (2010). (Note: most plants in case B, as well as its headquarters, are located in small towns).

6.5.1.2 Differences in educational level
The study results reveal that difference in educational level does not have a significant effect on the level of IPC in the LCI. This result contradicts the findings of previous studies in the literature on IPC (see 3.2). At the same time, the study shows that differences in educational level can have an effect by creating positive conflicts which are represented in the provision of ideas and a variety of solutions to problems. This result has not been referred to in previous studies as far as the researcher is aware.

6.5.1.3 Cultural differences
The study results show that cultural differences amongst workers do not have a significant impact on the level of IPC in the LCI because there are only a small number of foreign workers in the LCI. They represent about 3% (155 out of 5,577) of the total number of the workers. Also, cultural differences between Libyan workers are almost non-existent because all of Libya's population are Sunni Muslims (United Nations, 2013) and the Islamic religion plays a big role in uniting Libyan culture (Elmogla, 2009). Additionally, all Libyans speak Arabic because it is the language of their Holy Book and it is the official language of all governmental departments (Ahmad, 2013). All these facts show that cultural differences amongst workers do not have a significant impact on the level of IPC in the LCI. This result contradicts the findings of previous studies in the literature on IPC (see 3.2).
6.5.2 Behavioural Factors

6.5.2.1 Threats to status
The results of the study show that the factor of threat to position has a strong influence on the level of IPC in the LCI, particularly at the levels of middle management and shop floor management (see figure 6.7). This is due to an absence of a clear and stable organisational structure in cases A and B. Additionally, case A adopts a policy of attracting new graduates and putting them into leadership positions because of their proficiency in using modern technology and their ability to communicate in English; this situation has made some of the heads of departments and units feel insecure at work.

This result confirm the findings of a number of previous studies such as Newstrom (2007), Maher (2004), Newstrom and Davis (2002) and Fayath (1991).

6.5.2.2 Lack of trust
Lack of trust has a significant role in the high level of IPC in the LCI. This result confirms the findings of a number of previous studies such as Newstrom (2007), Maher (2004) and Newstrom and Davis (2002) wherein these authors found that a lack of trust is one of the factors which has an impact on IPC within organisations.

From an analysis of the data, it was noted that the lack of trust factor was caused by: administrative instability in both companies due to the lack of a clear and stable organisational structure in both cases A and B; employees’ fear of losing their positions in their company; poor communication between workers and their administration as a result of the language barrier; a sense of a lack of justice amongst employees as a result of the inequalities in salary between Libyan employees and their foreign counterparts, and by mismanagement of the organisational change in case A which resulted in the failure to pay the 10% of the company shares to the eligible beneficiaries.

6.5.2.3 Incivility
The results of the study show that the incivility factor has an impact on the existence of IPC in the two organisations and this result matches the findings of Newstrom (2007) and Pearson and Porath (2005). Also, the outcomes of the study
reveal that the incivility factor is one of the factors causing a high level of IPC in the Libya cement industry.

The incivility factor appeared in the LCI as a result of:

- Wasting time in chatting;
- Smoking at work;
- The encouragement of destruction as a result of poor management changes in Libyan cement companies.

6.5.2.4 Unfair treatment

Unfair treatment between employees has a significant role in intensifying IPC. This result confirmed the findings of the empirical studies of Swailem (2000) and Assaf (2004) and the theoretical study of Mullins (2005; 2007).

Unfair treatment in case A is due to a non-payment of the dividends of 10% of the company beneficiaries to their Libyan company workers in case A whereas 10% of profits are already given to the Libyan workers in case B. Additionally, unfair treatment is due to a lack of clear criteria for the disbursement of rewards at the end of year and in the selection of staff for trainings abroad in both case studies.

It was also found that, in case A, there is a big difference in the earnings and salary between comparable Libyan workers and foreign counterparts because of contradictions between the state laws and company policy.

6.5.2.5 Tribal fanaticism

This factor emerged in some of the interviewees’ answers concerning the cultural differences between workers and their impact on conflict. Many of the respondents pointed out that tribal fanaticism (of some of the workers) had a negative impact on relationships with colleagues and, consequently, this behaviour does not allow them to work as a team. Sometimes this develops into violence. One study notes that tribal fanaticism is usually reflected in behaviour and attitudes (as well as preventing cooperation) particularly if there are differences between the tribes (Alorafi, 2010).
It is expected that tribal fanaticism will increase and cause a lot of problems between Libyan workers within all organisations especially after the war in Libya. Hence it is advised that the Libyan Government set up committees for the national reconciliation of all tribes in order to resolve disputes between them to reduce the negative impact caused by such fanaticism and IPC on the country's economy and social cohesion.

6.5.3 Financial Factors
Some financial factors are present in this study such as the limitations in resources and facilities.

6.5.3.1 Limitations in resources and facilities
Limitations in resources and facilities in the LCI were present in: a lack of drinking water at production sites where the temperature is very high; a lack of facilities such as toilets, furniture, computers, etc. (due to financial difficulties); a shortage in safety equipment; in the limited specialised courses and in restricting these courses to the heads of the manufactories and those close to the management (this shows the existence of mismanagement in this study). This result matched the findings of previous studies as Mullins (2005; 2007); Al-Otaibi (2006); Maher (2004) and Abdolmotalleb, (2003).

6.5.4 Organisational factors
Organisational factors are represented by five factors: role incompatibility; work stress; a lack of communication; organisational change, and mismanagement.

6.5.4.1 Role incompatibility
The study findings show that role incompatibility is one of the causal factors of IPC in the LCI. This results from employees receiving conflicting instructions from more than one director, and the conflict between the hours of children’s schools and official work times, along with the absence of public transport in Libya (Safour, 2011).

Role incompatibility as a result of the conflict in the hours of schools and official work time is a common problem in most organisations in Libya. It generates psychological stress on workers in Libyan organisations.
6.5.4.2 Work stress
The results of the study reveal that work stress has an effect on increasing IPC in the LCI. This result agrees with the findings of previous studies such as those of Maher (2004) and Luthans (2008) which confirm that work stress is one of the factors that cause IPC in organisations.

Also, the findings of this research show that considerable work stress is suffered in the LCI and is caused by several reasons including: workload; mismanagement of changes resulting in a lack of management stability; continuous change in the organisational structure of the company resulting in some workers fearing for their positions; role incompatibility as a result of some workers receiving orders from more than one manager in addition to family obligations which can affect their work; poor communications amongst the management and amongst some of the workers due to the language barrier, and the conflict between State Laws (Act 15 of 1981) and the policies of some organisations in the LCI. This conflict causes much stress case A because of the unfair treatment.

6.5.4.3 Lack of communication
The results of the study reveal that lack of communication has an impact on the level of IPC in the LCI which agrees with the findings of previous studies such as Luthans (2008), Assaf (2004), Maher (2004) and Abdolmotalleb (2003).

Case A suffers from a weakness in direct communication between the top management and the employees; as a result of the process of translating information is often received late and is sometimes incomprehensible because of a literal translation. Therefore, this has resulted in psychological stress on some of the supervisors and has also resulted in confusion and conflicts at work. Moreover, the results reveal that administration officials do not realise that their organisation suffers from weakness in communications (which contributes to a high level of IPC). In addition, the solutions which have been developed by the companies’ administration, such as conducting computer training courses and English language courses, are not sufficient.
Additionally, the findings reveal that communications amongst the employees in case B are undertaken in a traditional manner and are not via e-mail, resulting in a delay in responding to the requests of workers. This shows that case B suffers from poor communication (in spite of the non-recognition of this fact by the majority of the top, middle and shop floor management levels) which has created an invisible conflict between superiors and subordinates and distrust in the management.

6.5.4.4 Organisational change
Organisational change is one of the causal factors of IPC in the LCI because of resistance to change by the employees and mismanagement of the change in both cases A and B.

The change in case A was due to the merger of the company with a new investor. However, this change encountered strong resistance by the workers because of mismanagement of the change, as the previous management did not inform the workers of the change in advance. Also the new management of the company stopped specific training courses and bonuses. These issues have raised strong resistance to change by workers in case A.

Organisational change in case B was represented by the constant change in the company’s management as well as in its organisational structure, resulting in managerial instability in the company and resistance by workers.

This result matches the findings of Newstrom (2007), Mullins (2005; 2007), Newstrom and Davis (2002) and Maher (2004) who state that organisational change is one of the causal factors of IPC in organisations due to the resistance to change by employees.

6.5.4.5 Mismanagement
The results of this study showed that the mismanagement of organisations in Libya has an effect on the levels of conflict. This factor has emerged in the mismanagement of change in both case studies. This mismanagement, in turn, causes an extreme resistance to change resulting in delaying work in some of the factories, plus absences from work and causing other negative aspects of conflict
within the Libyan cement companies. In addition, mismanagement in this industry appears through the absence of clear criteria in the selection of candidates for training courses and in giving rewards. Also, this mismanagement by the management can be seen in the lack of an organisational structure and job descriptions for posts.

Ahmad (2013) states that mismanagement in Libyan organisations is due to the extent of the affiliation with the ideology of Muammar Gaddafi and the revolutionary committees, and not because of anything else.

Furthermore, Hudana (2004) declares that most Libyan organisations are managed by employees who do not have suitable qualifications and/or sufficient experience. Subsequently, this impacts negatively on the efficiency of the leadership in the organisation.

All this emphasises that the factor of mismanagement is amongst the factors which cause conflict within the cement industry in Libya.

However, this result has not been previously referred to in other studies, as far as the researcher is aware.

6.5.5 External environmental factors
The results of this research show that external environmental factors have an influence on IPC in Libyan organisations. Among these factors are conflicting and contradictory Libyan Laws and organisations’ policies.

6.5.5.1 Incompatibility between organisational policy and state laws
The incompatibility and contradictions between Libyan State Laws and organisational policy is one of the main factors of IPC in cement industry. This is because Libyan laws have not been revised and updated, especially Law No.15 of 1981, which has caused many problems for case A. Case A is currently managed by a new investor who tried to raise the salaries of the Libyan workers to be closer to that of the foreign workers but Law No.15 of 1981 was a hindrance to achieving this. This issue has contributed to the lack of confidence in the
management by the foreign partner and has also contributed to the high level of IPC in this industry.

A number of Libyan writers believe that the process of privatisation in Libya was characterized by being too hasty. A suitable environment to enhance success has not been created. It requires such input as a revision of Libyan laws (so as not to be incompatible with the policies of institutional investors) and a sophisticated infrastructure (Elfaitory, 2004; Kaplan and Paddy, 2004). Therefore, Libyan laws need further development.

To the knowledge of the researcher, the factor of incompatibility between organisational policy and state laws has not yet been referred to in previous studies as one of the causal factors of IPC.

All the findings are further summarised in figure 6.17 (the analytical framework to the causal factors of IPC in the LCI); listed under each causal factor of IPC. This figure displays the influences which affect the causal factors relating to IPC in the Libya cement industry (i.e. the factors that are discussed in this chapter).
The Causal Factors of Interpersonal Conflict in the Libyan Cement Industry

**Individual Differences**
- Age Gap
- Educational Differences
- Cultural Differences

**Behavioural Factors**
- Threats to Status
- Lack of Trust
- Incivility
- Unfair Treatment
- Tribal Fanaticism

**Organisational Factors**
- Role Incompatibility
- Work Stress
- Lack of Communications

**Financial Factors**
- Limitation of Resources

**External Environmental Factors**
- Clash among Organisational Policy and State Laws

Figure 6.17: The analytical framework to the causal factors of IPC in the LCI
The main contributions to knowledge by this research are presented by the following factors: tribal fanaticism, mismanagement, incompatibility between organisational policy and the state’s laws, and also by the analytical framework for the causal factors of IPC in the LCI.

From the outcomes of this research on the factors relating to IPC in the Libya cement industry it is possible to suggest some recommendations to assist the Libyan government in reducing IPC in order to improve efficiency and good organisation in the cement industry. These recommendations are presented in the concluding chapter which follows.

6.6 Chapter Summary

This chapter has presented the findings that have emerged from the data collected from the two case study organisations. Multiple sources of evidence including face-to-face interviews (as the main source), a documentary review, and direct observations were used during the data gathering exercise in order to enhance the internal validity of this research. This chapter discusses in detail the causal factors of IPC in the Libya cement industry which have emerged following a review of the literature and the analysis of the findings of the two case studies.

The outcomes of the study show that the level of IPC in the Libyan Cement Industry (LCI) is at a high level because of several factors, including individual, behavioural, organisational, financial, and external environmental factors.

The next chapter is the final chapter which will draw the thesis to a close by considering how the study has met its aims and objectives, by reviewing the contribution made by the study and by offering recommendations for future research efforts in this field.
CHAPTER SEVEN
CONCLUSIONS AND RECOMMENDATIONS

7.0 Introduction
This chapter brings together the results, a discussion on the interviews, observations, and an analysis of the supporting documentation in order to draw conclusions on the methodology used. It also identifies the causal factors of interpersonal conflict (IPC) in the Libyan cement industry (LCI).

These points will be centred around each of the objectives of the research and the overall aim of the study. Finally, recommendations will be made for the future development of the Libyan cement industry and methods will be proposed for improving Libyan cement companies as well as future cement manufactories in Libya.

7.1 The Success of the Research Method
This study has examined IPC within the cement industry in a Libyan context. It aimed to investigate the causal factors of IPC using Libyan cement companies as case studies. In order to achieve the research aim and objectives, to answer the research questions and to maximize the quality of the case studies findings there was a need to choose the most appropriate methodology by which the research aim and objectives would be achieved. The selection of the appropriate methodology for this research came about after reviewing the literature on the research topic and setting the aims and objectives alongside an examination of the literature on research methodology.

Based on the nature of this study, which is rooted in the concept of real-world experience, the interpretivism philosophy was adopted as the main research philosophy (section 5.2). The case study was selected as the best strategy for this research having considered the advice of Yin (2009) regarding the appropriateness of this strategy. The data required to achieve the aim and objectives of the research was collected from two main sources: using a secondary data collection
method (an intensive literature review to understand the aspects of IPC philosophy) and a primary data collection method (semi-structured interviews, direct observation and documentation) to identify the causal factors of IPC in the environment of the LCI.

The multiple sources of evidence were found to be useful as they helped to reduce uncertainty. Consulting the documentation assisted in verifying the answers provided and in comparing with other methods of data collection. The method of data analysis was based on a systematic analytical technique process (thematic analysis).

7.2 Meeting the Aim and Objectives and Answering the Research Questions

The aim of this research was “to develop a framework of the causal factors of interpersonal conflict (IPC) in the Libyan cement industry (LCI) in order to improve interpersonal conflict management in this industry through providing recommendations to the LCI administration for their reduction”. The research questions were:

- What is the level of IPC in the Libyan cement industry?
- Why does IPC exist in the Libyan cement industry?

The research questions were answered through the achievement of the objectives of the study. Additionally, the research aim was achieved effectively by addressing the research objectives as follows.

The first objective was “to review the relevant literature on the concept of IPC to create a theoretical framework to the causal factors of interpersonal conflict”.

To achieve the first objective, a critical literature review was conducted as discussed in chapters two and three. The following aspects were examined through the literature review: knowledge of organisational conflict and its nature; the development of conflict; a theory in managerial thought which is recognised as a traditional school of thought of conflict; a theory on human relations in the conflict, and the modern theory on conflict. In addition to this broad literature review, chapter two also provided a review of the stages of organisational conflict
along with the outcomes of OC. In chapter three there was a discussion on interpersonal conflict (IPC), the nature of interpersonal conflict and the causal factors of IPC. Then, the causal factors of IPC were gathered in a theoretical framework which organised the eleven causal factors of IPC (which were shown in the literature) into four broad themes: *individual differences; behavioural factors* (included threats to status, a lack of trust, incivility and unfair treatment); *financial factors* (involving limitations in resources and facilities), and *organisational factors* (containing role ambiguity, role incompatibility, work stress, lack of communication and organisational change) (see figure 3.2 in chapter three). Finally, chapter three ended by looking at the process of managing IPC. Chapter four provided an overview of the Libyan environment where the research took place, including the Libyan political and economic background, Libyan social structure and a summary on the cement companies in Libya. All these chapters covering the literature review that was undertaken addressed the first objective of the research. These chapters also assisted in supporting and facilitating the analysis and the interpretation of the research findings.

**The second objective** was “to identify the level of IPC in the Libyan cement industry”. (Note that by achieving this objective the answer to first research question was attained).

In order to achieve the second objective, multiple embedded case studies were chosen as the most appropriate research strategy (chapter five). Hence, 48 face-to-face semi-structured interviews were conducted with personnel at all organisational levels in the Libyan Cement Industry. The information obtained from these interviews was triangulated with other sources such as documentation and direct observation to gather relevant information on the causal factors of IPC in the LCI. Then the data was analysed by thematic analysis and the results were discussed in chapter six, in section 6.5, under the theme of the level of IPC.

**The third objective** was “to create a validated framework of the factors that cause IPC in the cement industry in Libya”. (Note that by achieving this objective the answer to the second research question was reached).
To meet this objective the data from both the case studies in the LCI were coded, categorized into themes, interpreted, then summarised and presented in a meaningful form. This objective was achieved under the theme of “the causal factors of IPC” in section 6.6. The causal factors of IPC in the LCI were summarized in section 6.7 in five themes: individual, behavioural, organizational, financial and external environmental.

The research findings in chapter six were discussed and compared with findings discussed in the literature. This process allowed the comparison of the factors which were consistent with the factors discussed in the literature and also to observe some factors which emerged from this empirical work. Thereafter, the framework for the study was developed and was presented in the light of the research findings, as seen in figure 6.17.

**The fourth objective** was “to provide an explanation of these critical factors and their sources in order to provide recommendations to the administration of the cement industry in Libya for their reduction”.

This objective was achieved by the analysis and discussion of the results in chapter six and then by the recommendations which are provided later in this chapter, in section 7.6.

Finally, by achieving and meeting all the research objectives and presenting the framework on the causal factors of IPC in the Libyan Cement Industry, the research aim was achieved and the two research questions were answered also.

### 7.3 The Analytical Framework of the Causal Factors of IPC in the LCI

The analytical framework of the causal factors of IPC in the LCI involves five themes: individual, behavioural, organisational, financial and external environmental.
7.3.1 Individual Differences
Individual differences have an influence on the level of IPC in the Libyan Cement Industry (LCI). Individual differences amongst the workers in the LCI that caused IPC were: the age gap between workers, differences in educational level and cultural differences. The age gap between workers has a larger influence on the level of IPC in the LCI, while educational level and cultural differences have a smaller influence on the level of IPC in the LCI.

7.3.2 Behavioural Factors
These were represented in five sub-factors including: threats to status, a lack of trust, incivility, unfair treatment and tribal fanaticism. All these factors have an impact on IPC in the LCI. These factors are summarised as follows:

**Threats to status** have a strong influence on the level of IPC in the LCI, particularly at the levels of middle management and shop floor management. Threats to status appeared when the managers in the LCI employed new graduates and put them in leadership positions because of their ability to communicate in English and their knowledge in using technology; these actions made some of the heads of departments and units feel insecure at work;

**A lack of trust** has a significant role in the high level of IPC in the LCI. It is caused by administrative instability in both cases due to: a lack of a clear organisational structure; the fear that employees have of losing their position in the company; poor communications because of the language barrier between employees and their administration; a lack of justice shown to employees due to the inequality in salaries between Libyan employees and their foreign counterparts due to the conflicts between state laws and company policy, and the mismanagement of organisational change;

**Incivility** has an impact on the existence of IPC in organisations. It appears in the LCI as: a result of wasting time in chatting, smoking at work, and encouragement of destruction as a result of mismanagement of change in the Libyan Cement Companies and a high resistance to change in this industry;

**Unfair treatment of employees** has a significant role in intensifying IPC. Unfair treatment in the LCI can be seen in the non-payment of 10% of the company profits to the Libyan company workers in case A. The 10% of profits was given to workers in case B; however, in this company there was a lack of clear criteria for
the disbursement of rewards at the year end and in the selection of personnel for training abroad;

_Tribal fanaticism_ comes about through the cultural differences between workers. Such a factor can have a negative impact on the relationships between employees and consequently such behaviour often does not allow them to work as one team, sometimes on occasion extending to violence.

### 7.3.3 Financial Factors

The financial theme presented in this study is the limitations in resources and facilities. The limitations in resources and facilities in the LCI could be seen in: a lack of drinking water at production sites especially in hot weather; toilets in a bad condition in most of the factories; a lack of computers; shortage of safety equipment; no or limited specialised training courses and attendance on courses being restricted to the heads of the manufactories and those close to the management.

### 7.3.4 Organisational Factors

This theme has an effect on the level of IPC in the LCI. It is represented in five factors incorporating: role incompatibility, work stress, a lack of communication, organisational change, and mismanagement. These factors are summarised as follows:

**Role incompatibility** is one of the causal factors of IPC in the LCI. It results from employees receiving conflicting instructions from more than one director, and also from the conflict between the hours of children’s schools and official work hours, alongside the absence of public transport in Libya;

**Work stress** in the LCI is caused by several reasons including: workload; mismanagement of change; a lack of a stable management; role incompatibility; a lack of communication; language barriers; and conflict between state laws and cement companies’ policies;

**Lack of communication** in the case studies was due to weaknesses in the direct communication between top management and the employees as a result of the process of translating information which means that information is often received late and sometimes is incomprehensible because of literal translations;
Organisational change is evident by the outcome of resistance to change by the employees as well as by the mismanagement of change in both cases; Mismanagement emerges in the management of change in both case studies. This mismanagement, in turn, causes an extreme resistance to change resulting in delays in the work of some factories in the Libyan Cement Companies together with some unjustified absences by workers and other negative aspects of conflict. In addition, mismanagement in this industry appears in the absence of clear criteria in the selection of candidates for training courses and in giving rewards, in the lack of an organisational structure and in a dearth in job descriptions for posts. Furthermore, mismanagement can also be attributed as being due to the extent of the affiliations with the ideology of Muammar Gaddafi and the revolutionary committees (as mentioned in chapter four).

7.3.5 External environment

The results of the research show that external environmental factors have influenced IPC in Libyan organisations. Among these factors are the incompatibility and conflict between organisational policies and state laws. For example, this incompatibility was obvious in the conflict between Libyan Law No.15 of 1981 and the policies of case A. The management in case A tried to raise the salaries of its Libyan workers to be closer to that of the non-Libyans workers, but Law No.15 of 1981 became a hindrance in achieving this. This law sets out a maximum amount for salaries in Libya for Libyans and the company cannot exceed the value specified in this law. Hence, this results in a feeling of injustice felt by Libyan workers. Consequently, this factor, in turn, contributes to a lack of confidence by the Libyan workers in the management by the foreign partner as well as to the high level of IPC in this industry.

7.4 Originality

An original contribution to knowledge deriving from this research is the entire identification of the causal factors of interpersonal conflict in the Libyan cement industry. To the best of the researcher’s knowledge, this study is the first to be carried out in Libya into IPC. It is also the first academic study of IPC within the cement industry.
No case study research examining this topic in Libya is mentioned in the literature. Therefore, this study provides a basis for the development of scientific research in this area in particular and into Libyan organisational conflict in general.

Moreover, little attention has been paid to IPC in developing countries in general and in the Arab world in particular. Therefore, this research will add to the corpus of knowledge in this field because it is about the causal factors of interpersonal conflict in cement industry in Libya, an Arabic developing country.

Additionally, the few published studies available on IPC are in other industry sectors. This study identifies the causal factors of IPC in the Libyan cement industry, contributes to original knowledge in the field of IPC and thus enhances the totality of knowledge in this area.

Three unique factors which affect interpersonal conflict in the Libyan cement industry have been identified in this study. They are:

- Tribal fanaticism;
- Mismanagement;
- The contradiction or conflict between organisational policy and the state’s laws.

This is the first empirical study that addresses and develops an analytical framework for the causal factors of IPC in the cement industry carried out in a Libyan context and thus undertaken in an Arabic country. This study has attempted to narrow the gap in knowledge within the cement industry by providing an empirical understanding of to the causal factors of IPC within this environment.

7.5 Further Contributions to Knowledge

- The main contribution of this study is the analytical framework of the causal factors of interpersonal conflict in the Libyan cement industry.
- Three unique factors have been identified by this study. They are tribal fanaticism, mismanagement, and incompatibility between organisational policies and state laws;

- The lack of empirical studies on the subject of IPC in Arabic countries is addressed. To the best of this author’s knowledge, none of the previous studies were carried out in a Libyan context. Therefore, this research has provided additional research in this area;

- The identification of the causal factors of IPC could lead to the potential identification of points that would improve the cement industry in Libya and lead to a modern industrialized economy for Libyan society;

- This research will aid the Libyan government in identifying the changes that are necessary for the cement industry to upgrade in order to achieve global market export nation status for building materials;

- This research highlights the importance of managing IPC and hence developing the capability to train people in the cement industry on the correct ways to reduce conflict levels;

- This study will provide a useful resource for both researchers and practitioners who have a strong interest in understanding interpersonal conflict in organisations;

- Finally, this research provides a body of knowledge that will assist in supporting and helping decision-makers in Libya in understanding the different issues that can affect the cement industry in Libya and also will assist in improving the quality of the programmes that Libyan decision-makers provide in other Libyan industries.

7.6 Limitations of the Research

Yin (2009) points out that all research is limited by the constraints placed upon the researcher. This research is no exception. However, in this research, every effort was made to ensure the gathering of highly reliable and valid data in order to achieve the research aim and objectives. Even with such a research effort, it
was not possible to control all the influences that were likely to affect the quality of the research.

**The limitations of this research are as follows:**

There is a dearth of documents within the cement companies and some of the case studies’ documents were considered private. This has reduced the ability to confirm or refute the responses from the interviewees and the possibility of providing triangulation of the evidence was not always available.

Another limitation concerned the researcher’s inability to tape record the interviews due to cultural constraints. This could be a cause of missing some important information and less concentration on the interviews. However, the researcher tried to write down as much as possible during the interview in order to tackle this limitation. Also, immediately after each interview the researcher spent time in writing down all the pieces of information and ideas while they were still easy to remember.

There is a lack of literature on interpersonal conflict aspects within the cement industry context. This issue is considered as a limitation affecting the research. Moreover, there is also very little literature based on studies conducted in Arab countries which have a similar culture and social structure and there is even less within the literature upon the Libyan context.

Some cultural and political barriers were in evidence during the interviews when a few participants seemed uncomfortable in giving certain information. In these cases soft skills were used to try to make the interview sessions as relaxed as possible.

**7.7 Recommendations**

Based on the theoretical and empirical results of this study, certain recommendations have emerged. These recommendations are presented below and have been divided into three sections: recommendations for policy, practices and future studies.
7.7.1 Recommendations for policy

- Libyan laws need to be developed in order to accommodate the current phase that the country is going through, i.e. fundamental changes and an opening up to the external world, especially after the February 2011 Revolution. Therefore, the Libyan Government should consider the revision of the Law 15 of 1981 concerning Libyan employees' salaries (which conflicts with the policies of foreign companies working in Libya) so as to reduce resistance to change by workers as a result of this conflict (and to decrease the sense of injustice felt by Libyan workers when they compare themselves with their foreign counterparts). Also, laws concerning the privatisation of Libyan companies should be reviewed to encourage foreign companies to invest in Libya;

- The Libyan Government needs to take into account the problem concerning the 10% shareholding of employees in all privatized industrial organisations (including the LCI) through a dialogue with the workers and needs to reach a solution that satisfies all parties. The Government should not ignore this situation (as is happening now) as this will intensify conflict and increase feelings of resentment and discontent in the management of the company of the foreign investor;

- To eliminate administrative corruption and mismanagement the Libyan Government should activate and enforce legislation that criminalises administrative and financial corruption in all its forms;

- The Libyan Government should consider enhancing coordination between the Ministries of Industry and Education as regards working hours and school hours. It should also offer convenient public transportation for both pupils and workers. Consequently, this would minimize the stress felt by some employees in the Libyan cement organisations because of the difference between the end of school hours and the end of the working hours. Resolving this conflict would improve the working environment and assist in further encouraging foreign companies to invest in Libya;

- The Libyan Government should give greater importance to national reconciliation through the establishment of a national reconciliation body which would aim at solving tribal conflicts (including previous conflicts
and the new ones which arose during the people's armed revolution against the Gaddafi regime) before such conflicts fester and influence the relationships between the employees within their organisations, and thus reflect negatively on the economic and social environment of the Libyan state.

### 7.7.2 Recommendations for future practice

- It is recommended that the cement organisations should rely on a collaborative approach and teamwork to resolve IPC because such an approach would have a positive impact on reducing the level of conflict in these companies;

- Managers of cement companies in Libya should avoid using a confrontational approach especially in Libya’s current situation of insecurity and instability. The companies should also resolve outstanding grievances, such as the problem of the 10% profits’ share for the employees of the Libyan cement companies or the problem of what is known as “career leave” by using a collaborative approach to reduce resistance to change in the LCI;

- The administrations in the Libyan cement organisations should recognise the importance of the management of organisational conflict in general, and IPC in particular, by attending training courses focused on the modern theory of conflict which is based on the concept that organisational conflict is not a danger in itself but that the danger lies in the mismanagement of it;

- Levels of educational attainment and relevant qualifications should be considered in the appointment process at the different levels of administration in Libyan cement organisations;

- Cement organisations should consider the environment in the workplace and should provide a high quality safe environment including air conditioning, appropriate furniture and good lighting in the production areas, plus a medical centre in each company because of the risks of the cement work environment on health. In addition, the companies should provide toilet facilities in good condition;
• It is essential that the managers in the two cement companies should conduct computer training courses and English language courses;

• An emphasis on developing an organisational structure is needed for both cement companies to reflect the activities and policies of the companies. Additionally, job descriptions for each job should be drawn up setting out the requirements for each function and specifying the duties and responsibilities of each position;

• A fair system should be established with clear criteria for promotions and for the selection of personnel for training courses and year-end bonuses. Systems should also be set up to allow for complaints to be made and to clarify the standpoint(s) of the management in response to any complaint in writing;

• Discussions on performance should be undertaken by the workers with their supervisors to eliminate any constraints that hinder workers’ performance in order to reduce the stress of work. Identifying the strengths of each employee and further strengthening them through moral stimulation can only have a positive outcome, alongside identifying weaknesses and assisting to get rid of them;

• Management should conduct periodic formalised meetings to evaluate and discuss any conflict within each group in the company. Any concerns or conflict expressed in these meetings should be addressed objectively and away from exposure to personal matters. Such meetings should provide an opportunity for to bring about innovative solutions that might satisfy all the parties and increase their ability to work as a successful team;

• It is also proposed that the administrations in the cement companies in Libya should intensify their efforts to adopt electronic communications between their various departments and their employees because this will save time and effort as well as assisting in limiting any conflict caused by poor communications and the consequent lack of trust;

• To obtain the provision of adequate and effective principles for management changes in LCI the following points are recommended:
  - Prior to new changes pertinent information should be given to the appropriate people in a realistic time span. They should also be
given sufficient information on the advantages and disadvantages of any new changes;

- Also, prior to new changes appropriate training courses should be provided for the workers who will be affected by the changes;
- The supporters of change should be encouraged, contrasting viewpoints should be listened to and management should try to understand different points of view in order to reduce resistance to change.

- Administrators in the cement organisations should also concentrate on social aspects because of their positive impact on the morale and performance of workers. This could be through holding periodic meetings, gathering employees at all levels in a social atmosphere to develop human relationships and to support confidence in fellow workers, alongside reducing work stress and encouraging the spirit of cooperation between employees.

### 7.7.3 Recommendations for future studies

Future studies could include the following:

- Supplementary work could be conducted to study the causal factors of other types of organisational conflict in the Libya cement industry and in other organisations;
- A comparative study of the causal factors of conflict between individuals in industry organisations and service organisations could be carried out;
- More research could be conducted to identify the influence of the ‘Arab Spring’ on the level of conflict in organisations in those countries affected by the ‘Arab Spring’;
- Studies could be undertaken on the impact of the methods of managing IPC on the causal factors of IPC;
- Examinations could take place on the impact of the methods of managing IPC on the level of IPC in organisations.
References


IGB (Industrial General Board), (2001) *Study the managerial and technical situation for Libyan Cement Industry from 1-7-2001 to 15-7-2001*, [Report, Libya: Industrial General Board.


Appendix

Appendix A

Academic Audit and Governance Committee
Research Ethics Panel (REP)

To: Munira Elmagri
cc: Dr David Eaton, Prof M Kagioglou
From: Tim Clements, Contracts Administrator
Date: 9th March 2010

Subject: Approval of your Project by REP

Project Title: An Investigation and Identification of the Factors of Interpersonal Conflict in the Libyan Cement Industry.

RGEC Reference: REP10/033

Following your responses to the Panel’s queries, based on the information you provided, I can confirm that they have no objections on ethical grounds to your project.

If there are any changes to the project and/or its methodology, please inform the Panel as soon as possible.

Regards,

Tim Clements
Contracts Administrator
TCSIH
Appendix B

INFORMATION LETTER TO INTERVIEWEE

Dear Sir / Madam

You are invited to participate in a PhD research conducted by Mrs. Munira I Elmagri at the School of the Built Environment at Salford University.

The title of the research is: the factors of interpersonal conflict in the Libyan cement industry.

The main aim of conducting this research is to investigate and identify the factors of interpersonal conflict in the Libyan cement industry.

The objectives of this study are:

- To critically review the relevant literature on the concept of interpersonal conflict in order to provide a list for all factors of interpersonal conflict;
- To gain empirically in-depth understanding of the factors which lead to interpersonal conflict;
- To explore and identify the current factors of interpersonal conflict in the Libyan cement industry.

You will be invited to an open-ended and closed interview on the subject of investigation the factors of interpersonal conflict in the cement industry in Libya, based on your useful knowledge of this field. The interview will take approximately half an hour.

There are no known risks associated with this research. Please be assured that your response will be held in the strictest confidence. The data collected will not be disclosed outside for any reason and those will only be used for the purposes of
this research. If you have any queries about this study, please do not hesitate to contact me by e-mail:
M.I.Elmagri@pgt.salford.ca.uk or on my address below:

Thank you in advance for your participation,

Name of Researcher:
Munira Elmagri
School of the Built Environment
University of Salford
Maxwell Building 4th Floor
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Supervisor:
Prof. David Eaton
School of the Built Environment
University of Salford
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Salford M5 4WT
U.K.
Appendix C

CONSENT FORM

**Title of research:** An Investigation and Identification of the Factors of Interpersonal Conflict in the Libyan Cement Industry.

**Researcher Name:** Munira Elmagri & **Supervisor Name:** Prof. David Eaton

I am the below mentioned name and details and signature, I would like to give my full consent for the following:-

- I agree to take part in the interview;
- I agree to the interview being tape recorded;
- I understand that all my personal information will be coding;
- I understand that the information that I am giving can be used as data for research, and the research may be used by other researchers, published and put into public domains such as the British Library, Universities’ Libraries, Internet, etc;
- I understand that there are no hazards, risks or other dangers associated with this work;
- I understand that my participation is voluntary and I can withdraw at any time without giving any reason;
- I understand that I may refuse to answer any particular question(s).

*Note:* if you have any objection or reservation, please write it below.

---------------------------------------------------------------------------------------------------

- Name:                                                                        Position:
- Company:                                                                      Email:

Signature: ............................................................  Date:
Appendix D
Interview Questions

Case: A / B
Interview No: ........................................ Date: ........................................
Participant’s Name: .............................................................
Participant’s Occupation: .....................................................
Participant’s Location: .......................................................
Interview Start time: ........................................ Finish time: .........................

Q1. Our life is not free from conflict; some say that conflict is the spice of life. From your experience in this organisation would you please identify the level of IPC in your company? Is it in low or middle or high or is there no conflict at all?

Q2. Why does IPC exist at this level from your point of view? Please kindly give some examples to support your view if possible?

Q3. In your opinion, what are the factors causing the conflict among employees in your organisation?

Q4. Does the difference in age among workers have an impact on the level of IPC in your organisation?

Q5. Does the difference in educational level between employees have an impact on the level of conflict among them in your organisation?
Q6. Do cultural differences among workers have an impact on the level of conflict at your organisation?
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Q7. Is there an organisational structure at your organisation? If yes, when was the last change?
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Q8. Does the change of position for some workers have an impact on the high level of IPC at your organisations?
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Q9. Do you think that there is a feeling of lack of trust between employees in your organisation? If so, why?
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Q10. Has the lack of the trust between employees affected the level of conflict among them?
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Q11. Is there any harassment you face from colleagues that disturb the performance of your business? Are there people in the organisation that can be described as uncivil and disrespectful to their colleagues? If yes, in your opinion, do you believe that they have an impact on the level of conflict between individuals in your organisation?
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Q12 Do you believe that there is unfair treatment between employees in your organisation and this in turn has an effect on the level of conflict between them? Would you please give me more details?
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Q13 What do you have from resources (as supplies, materials, equipment and services) in your company? And are they enough and available for all workers?

Q14 Do you think that the limitation of resources and facilities has an affect on the level of conflict among the workers in your organisations?

Q15 Do you have ambiguity and lack of clarity in the work that you are doing? If so, does the ambiguity and lack of clarity affect the level of IPC between the workers in the company? If no, would you please clarify the mechanism of the tasks definition to employees in your work?

Q16 Do you think that the employees in the company face problems as a result of their different roles in their units or outside?

Q17 Do you receive instructions from more than one administrator? If yes, did this affect your relationship with your direct manager or colleagues?

Q18 Do you come across with any problems because you do different roles in or beyond the organisation?

Q20 Do you feel stress as a result of the nature of your work in the company, or for any other possible reasons? Please specify.

Q21 Do you think that the work stress has an effect on the level of conflict in your organisation?
Q22 How is the process of communication achieved in your organisation?

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Q23 Do workers in your organisation encounter problems resulting from poor communication or due to lack of information?

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Q24 Do you think that a factor of poor communication has an effect on the high level of conflict amongst individuals within the organisation?

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Q25 Has any change been made to your company lately? If yes, what kind of change is it?

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Q26 Does this change have any influence on the level of conflict in your organisation?

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Q27 Are you satisfied with this change and why?

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Thank you very much for giving me your valuable time and for your participation in the interview