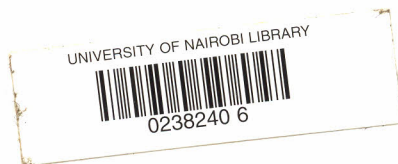




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CONSTRUCTUAL CLAIMS IN THE CONSTRUCTION INDUSTRY
OF THE UNITED KINGDOM



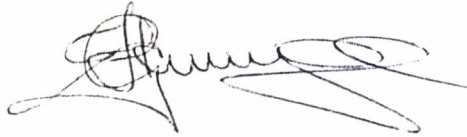
M. Sc. DISSERTATION

Hezekiah Gichunge

1989

CONTRACTUAL CLAIMS IN THE CONSTRUCTION INDUSTRY
OF THE UNITED KINGDOM

by

A handwritten signature in black ink, appearing to read 'Gichunge', with a stylized flourish extending to the right.

HEZEKIAH GICHUNGE

Dissertation in part fulfillment of
MSc in Construction Management

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DEDICATION

This work is dedicated to my late grandfather, MR. LENANA M'TUERANDU, for his wise counsel and treasured support in educating me

my late father MR. PETER MAINGI

my mother MRS. SALOME WANJIRU PETER

my dear wife, EVA MUTHONI GICHUNGE, for her love and support

my Sons: PETER MUNENE, SAMUEL MUTHOMI and DANIEL MUTUMA.

ABSTRACT

This study is an attempt to highlight the principal sources of claims, the most outstanding types of claims and also suggesting the root causes of such claims in the U.K. construction industry. To achieve this aim, the study has started by examining the definition of claims and their origin.

Claims usually arise from breaching the terms in the conditions of contract or duties placed by the common law. The various types of construction contracts and their legal basis have also been examined.

The main observation made is that the construction contracts usually allocate risks between clients and contractors.

There are several factors which cause claims. These are delay caused by the parties to the contract, discrepancies in contract documents, late site possession, differences in view regarding payments, environmental hazards, damage and injury to persons and property.

The court cases examined in the study showed that late possession of site, discrepancies in contract documents, delay and prolongation, payments and damage to property as principal sources of claims.

Interviews were undertaken whose aim was to look at the issues raised in the objectives of the study namely the principal sources of claims and the most outstanding types of claims.

The major conclusions of the interviews were that variations and inadequate or late informations played a very key role in all the projects and hence becoming very prominent sources of claims.

The study concludes that the major sources of claims are late and/or inadequate information, variation orders and site instructions, late possession of site, discrepancies in the contract documents, late approval by local authorities, misunderstanding or misinterpretation of contract conditions and inclement weather. The most outstanding types of claims are extension of time, disruption and prolongation costs.

The author has endeavoured to give explanations for the above factors and also to make recommendations which if adhered to could minimise the incidence of claims in the industry.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1 Ingredients of a Contract

A building contract like all other types of contracts should meet the basic requirements. These requirements are an offer, an acceptance and consideration. The three ingredients have to be present for any binding contract.

Major (1979) has defined an offer as an undertaking by the offeror to be contractually bound in the event of a proper acceptance being made. The offer he states must therefore be clear, complete and final. These facts are illustrated in the following cases: WHITE V. BLUETT (1853): A father promised to release his son from an obligation to pay on a promissory note if the son would cease from complaining.

HELD: there was no enforceable contract because the son's promise was too vague.

GUTHING V. LYNN (1831): Lynn bought a horse from Guthing on the terms that "if the horse was lucky to him he would give five pounds more".

HELD: too vague to be binding. An offer may also be regarded as a proposal to create a contract. There are two kinds of an offer:

a) Bilateral Offer

The proposal may call for an acceptance in the form of an unqualified promise to perform according to the terms contained in the offer. The acceptance of this kind usually leads to a bilateral contract. Building contracts would fall under this category.

b) Unilateral Offer

The offeror's proposal may be in terms which call for an act to be performed eg. the return of a specific lost property. A unilateral contract is made upon performance according to the terms of the offer.

The offer is not valid unless and until it is communicated to the offeree so as to give him the opportunity to accept or reject it. The offer may also be communicated to an individual or a group of persons or to the whole world in writing or may be implied from conduct. A valid acceptance can only be made by an offeree. The case of POWELL V. LEE (1908) clarifies the above matters: Powell had applied to a committee of School managers for the post of a School Headmaster.

The Committee decided to appoint Powell, but did not inform him of the decision. One of their member, without authorisation, informed Powell that he had been considered for the post. The Committee then had a change of mind and considered another person. Powell contended that there was a breach of contract.

HELD: there was no contract because the committee had not accepted Powell's offer. The purported acceptance made without authority was not binding on the committee.

An acceptance must be unqualified otherwise it would invalidate the offer. The terms of the offer should be strictly adhered to without any variation. For instance if the terms of the offer in a building contract stipulate that the contract sum shall be fixed lumpsum but the contractor accepts the offer subject to the fluctuations clause, this would in effect viate the offer.

If an offeree makes a counter offer, this is tantamount to a rejection of the original offer. The original offer is deemed to have been rejected and cannot

subsequently be accepted. This issue is well illustrated by the case of HYDE V. WRENCH (1840): On 6th June, Wrench offered Hyde a farm for £1000. Hyde made a counter offer, on 29th June, Hyde made a purported acceptance of the offer of 6th June.

HELD: The counter offer operated as a rejection of the original offer and therefore no contract had been entered.

The principles of an offer, and acceptance are also applicable in building contracts. Wainwright (1973) has described the various tendering procedures and has also said that the above principles are essential, for a contract to be valid.

1.1.2 Tendering Methods

The Main purpose for calling tenders is to enable the client to secure an acceptable offer. This is achieved through open tendering, selective tendering or negotiation. In open tendering, a prospective employer advertises in the press, giving details of the proposed works and issues an open invitation to contractors to apply to him or his architect for the necessary documents.

Selective tendering involves drawing up of a short list of contractors and inviting them to submit quotations. Such a list may be drawn by the employer's professional advisers or through an advertisement in the press, describing briefly the nature of the project and requesting contractors who wish to be considered for inclusion in the short list to apply. Any one of the contractors included in the list could be entrusted with the contract.

The advertisement does not legally bind the employer in any way, but is merely an invitation to "treat".

The contractor makes an offer to do the work for a specified contract sum in accordance with the contract agreement, drawings, specification or bills of quantities. The employer accepts the offer if it is unconditional and this constitutes a contract. The employer in effect commits himself to pay the contractor for undertaking the works. The contract sum becomes the consideration, on the part of the employer.

Open tendering is more commonly used in public authority projects because of the requirements of public accountability while selective tendering is more common with private employers.

Negotiated method of selecting a contractor is usually used for building projects which are complicated in nature where the magnitude of a project may be unknown at first or where early completion is most important. Time is not sufficient under such contracts to produce drawings and bills of quantities.

Tenders in this method may be higher than those in competitive tendering. The method may however produce keen prices where tenderers are promised that they would continue with similar projects after the first award. The tenders may, therefore, be relatively low especially when contractors consider the efficiency gained through the learning curve.

The two parties in this method have however to discuss and agree on the contract sum unlike the other two methods where bonafide tenders have to be submitted. Open and selective tendering systems are prone to more claims than the negotiated system. The reason for this is that it is difficult for the tenders to evaluate the magnitude of risks in the former because of the completion involved (Wainwright Ibid).

In the negotiated system, the tenderer is in a position to discuss with the client and share the risks accordingly.

1.1.3 Contracts

Contracts seek to establish consideration after the offer has been accepted. They also stipulate conditions upon which each party will perform its side of the contract.

The following classifications of the methods of arriving at the consideration may be used when awarding contract:

i) Cost Plus

The Contractor is reimbursed all the cost in providing materials, labour and equipment plus his overheads and profit. The element of overheads and profits is variable.

ii) Cost Plus Fixed Fee

This method is similar to cost plus with the exception that the element of overheads and profits is fixed eg. 10% on the cost of materials, labour and plant.

iii) Target Cost with Fluctuating Fee

The cost is known but then the element of the contractor's overheads and profits is variable.

The above types of fixed contracts should have the terms very clear in order to avoid vagueness.

In entering a building contract, the contractor is covenanting to undertake i the works in accordance with the terms of the contract and the contract documents and the employer reciprocates by promising to pay the contractor for the said works.

If either party does not adhere to the terms of the contract, the latter is said to be breached. The aggrieved party would therefore seek redress in accordance with the agreed terms. Thus creating a situation that generates a source of claims.

1.1.4 Privity of Contract

After the employer has decided to undertake a construction project, he identifies an architect who would give him advice on the design. For the architect to be able to give a comprehensive advice, he solicits for assistance from a quantity surveyor on costs and from engineers concerning structures and services. Through the recommendation of the architect or vice versa the employer enters into separate contracts of services with all the professionals involved in the construction industry. The contract covers the duties and responsibilities of the parties concerned including remuneration for providing the said services. The method of paying the remuneration is also stated which basically depends on progress made.

The employer usually issues an appointment letter to the particular professional referring to the conditions of engagement. If the conditions are acceptable to the professional, he accepts the same in writing which constitutes a binding contract.

The privity of contract therefore exists between the employer and each individual professional. The parties to the contract could therefore sue if there is breach of the contract. In this case, either the employer or the professional could sue.

Most of the conditions of contract name the architect and also the quantity surveyor. The architect is principally taken as the client's agent which implies that the client has conceded that he would take responsibility for the actions and decisions of the architect in terms of liability to the contractor.

The case of REES & KIRBY LTD V. SWANSEA CORPORATION (1983) illustrates the fact that the employer is liable to the contractor for the acts of his architect. There is, however, no liability by the employer if the architect acts ultra-vires. This fact is affirmed by the case of STOCKPORT METROPOLITAN BOROUGH COUNCIL V. O'REILLY (1978). O'Reilly contracted to building 105 houses, garages and ancillary works for the council. The contract was in JCT 63 form. Disputes on variations and determination were referred to arbitration. The main points were:

- 1) Whether the contract had been properly determined or repudiated.
- 2) The extent to which the works had been varied.

The arbitrator made the award in favour of the client. The arbitrator failed in his interim award to find the extent to which the works had been varied.

He confused variations under the contract with orders given by the architect which were not authorised by the contract.

The matter was referred to court for decision:

HELD: The interim award of the arbitrator should be set aside. The judge commented that an architect's ultra Vires acts do not saddle the employer with liability. The architect is not the employer's agent in that respect. He has no authority to vary the contract.

The architect would be acting ultra-virely if he deducts liquidated damages in interim certificates or makes ex-gratia payments to the contractor. He should also not vary works substantially without the consent of both the client and the contractor. The contract entered into contains clauses which stipulate responsibilities of each party. Failure to undertake such responsibilities would result in breach of contract and may give rise to liability.

Chappel (1984) says that the architect is required to form an opinion and give effect to the opinion in a competent manner. In the course of his duties, he must take account of the facts and apply his knowledge and skill impartially.

For many years, the architect was believed to work in a quasi-arbitral capacity when carrying out his duties between the employer and the contractor.

It has been argued that this opinion has changed because the employer pays the architect's fees and therefore the latter feels duty bound to be on the side of the employer.

The idea of the architect's immunity to negligence has been changed since the publication of the case of STUCLIFFE B. THACKRAH (1974).

1. 1. 5 Types of Building Contracts

The role played by the architect and the contractor depends up on the type of contract being used.

In traditional contracting, the architect designs and supervises the project. He issues instructions to the contractor and certifies payment certificates after their valuations by a quantity surveyor where applicable. The contractor undertakes to construct the project with diligence. He procures materials, labour and equipment for the execution of the project.

Design and build contract provides that the contractor undertakes the responsibility of designing. He has to exercise the degree of reasonable skill and care as a professional architect as illustrated by the case of LANPHIER V. PHIPOS (1838).

The contractor can escape defective design liability if it can be shown that he exercised the standard of duty of care required from a professional designer.

The contractor has to construct the project which meets the clients needs. Marshall and Morledge (1988) have said that design and build can offer speed, single point responsibility and often certainty of price.

The contractor is treated as a professional in the same way as an architect in management contract. He is paid prime cost plus a fee. His main responsibility is to plan for the project including programs and co-ordinating designers and sub-contractors.

The contractor contributes greatly to buildability although architects say that he is not adequately trained to contribute to the design of the project. Work packages are prepared and the sub-contractors enter into contract with the management contractor separately.

In project management, the project manager is employed by the client and he in turn co-ordinates the contractor and the members of the design team.

The principle of liaison is extremely important if a project has to be completed successfully. The design team should inform the contractor about important decisions. The contractor has in turn to take instructions seriously and respond to them in accordance to the contract. Information should be provided by architects on time. Good working relationship has to be maintained by all the parties concerned.

1.1.6 Evolution of Standard Forms of Building Contracts.

There was a standard form of contract for use in building works in the United Kingdom during the last quarter of the 19th Century. This form consisted of thirty clauses only and its copy is printed in Hudson's Building Contract (3rd Edition) volume two on page 632.

In 1903, there was a development of the above standard form which was then known as the "Royal Institute of British Architects (R I B A) contract" until 1977 when it became the Joint Contracts Tribunal (J C T) contract or the standard form of Building Contract" after RIBA decided to withdraw their name from the document due to severe judicial criticism and acrid correspondence in Times Newspapers.

In 1903, the Standard form of building contract was compiled by a tripartite body consisting of the RIBA, the National Federation of Building Trade Employers (N F B T E) and the institute of Builders (I O B). I O B withdrew in 1931 and the responsibility of the compilation rested with the J C T which comprised of the RIBA and N F B T E.

The standard form was substantially re-written in 1939 and 1963. The Royal Institute of Chartered Surveyors was incorporated in J C T in 1952. By the year 1963, the Joint Contracts Tribunal consisted of ten bodies in the construction industry.

In 1980, R I B A decided to withdraw from the J C T because the latter drafted another form, the J C T 81 standard form with contractor's design. This form made no reference to the employment of a qualified architect. There was also no obligation for the contractor to employ a qualified architect to do the designing, supervision or certification of sums due to the contractor.

Currently, the J C T comprises thirty two members representing thirteen bodies from public sector, architects, quantity surveyors, engineers, contractors and sub-contractors.

The JCT CONTRACTS provide standard forms for use in every type of contractual arrangement in building construction projects ranging from package deals, contractors, design and build, cost plus to management fee.

There was a group of architects which felt that J C T was formed by groups which had vested interests. Consequently they decided to opt for the Association of Consultant Architects (A C A) in 1982.

1.1.7 Legal Basis of JCT Contracts

Parris (1982) has described the legal background of the JCT contracts. He has also made a contrast between the duties/liabilities arising out of contract and common law. The legal requirements in common law are similar to those applicable in building contracts. Some of these principles are:

a) Privity of contract

Privity of contract is a fundamental ingredient of English Law of Contract, which affects the standard contract provides that a person who is not a party to the contract cannot recover a benefit under the contract even though the

contract purports expressly to confer the benefit to him.

The case of TWEDDLE V. ATKINSON (1861) illustrates this point. William Guy contracted with John Tweddle that each would pay £200 to William Tweddle, who was the son of one of the contracting parties and son in law of the other. The contract purported to give William Tweddle express right to sue either party for failure to perform their obligation. William Guy died without having performed his obligation under the contract and William Tweddle therefore sued his executors for the £200. The court rejected Tweddles contention because he was considered as a foreigner to the Contract.

Conversely, a person who is not a party to a contract cannot have obligations imposed on him by the contract even if he knows of its terms: Mc GRUTHER V. PITCHER (1904).

The contractor cannot sue the architect under JCT 80 for breach of contract because the latter is not a party to the contract. The contractor is in contract with the employer and not the architect. He can only sue the employer who in turn may sue the architect if he is convinced that the latter has breached the contract with him.

b) Work and Materials

PARRIS (ibid) argues that for nearly 300 years, there has been a sharp distinction drawn between contracts for the sale of goods and contracts for the supply of work and materials, and a vast amount of erudition has been dedicated to elucidating this distinction.

Building contracts, which are not contracts for the sale of goods, are therefore, not subject to the Sale of Goods Act 1979 or its predecessor, the Sale of Goods Act 1893.

The contractor can never be treated as a buyer as per these acts because there is no time when he would ever become the owner of fixed or unfixed materials. The contractor can only give what he has and in this case he does not have any title to pass to the employer. This concept is complicated to grasp but it may be clearer by referring to the case of DAWBER WILLIAMSON ROOFING LTD, V. HUMBERSIDE COUNTY COUNCIL (1979).

The council entered into a contract with the main contractor under JCT 63, for the erection of a school. There was a sub-contract with Dawber Williamson under the National Federation of Building Trade Employers (NFBTE) blue form for the supply and delivery of Welsh roofing slates which were included in the interim certificate and paid for before the termination of the contractor's employment. Dawber Williamson, the Plaintiff, had not been paid for the tiles and went to the site to repossess them, but were refused to do so by the council. The council claimed that the slates belonged to them because they had already paid the main contractor for them.

Dawber Williamson sued for wrongful detention and conversion of the slates. The judge found in their favour for they were not a party to the JCT main contract. The council eventually paid the roofing sub-contractor, Dawber Williamson, for the slates. The subject matter of this case also touches on Privity of Contract.

c) Limitation Periods

Limitation period for simple contracts is six years. Such contracts are oral or in writing. When the cause of action arises out of contract under seal it can be taken up within twelve years in accordance with limitation Act 1980. Most Building Contracts are simple. Tortious liability has no time limit; action can be taken at any time.

as soon as damage has been suffered.

d) Liability in Contract

Parties liability in building contract may arise out of duty of care dually out of either contract or tort. The case of MIDLAND BANK TRUST CO V. ITETT STUBBS AND ICAMP (1979) confirms this fact. The court held that solicitors owed a dual liability to their clients, in contract and tort.

Building contracts are complex when compared to sale of goods contract because of the various parties involved in a single building contract. Professionals are required to deliver the goods in question.

This necessitates the drawing of contracts which are difficult to be understood by lay persons.

In constructing a project, numerous suppliers and sub-contractors have to be employed to provide their services. Hence the high level of co-ordination expected from the main-contractor. Building contracts are special because of the implied terms which go with them. Contractors are required to comply with building regulations, a term which overrides complying with the architect's design specification for the foundations as illustrated in the case of STREET AND SIBBABRIDGE. In the case of TEST VALLEY BOROUGH COUNCIL V GREATER LONDON COUNCIL (1979) where dwelling houses had substantial defects; it was held; there were implied terms of the agreement that the respondent would not merely exercise reasonable care but would provide dwellings which were constructed;

- a) in a good and workmanlike manner
- b) of materials which were of good quality and reasonably fit for their purpose.
- c) so as to be fit for human habitation.

The complex nature of the above relationships and the types of conditions used among others may give rise to claims.

1.1.8 Definition of Claim

The word claim has been given different definitions by various sources. Hughes (1985) has defined a claim as "a request, demand, application for payment or notification of presumed entitlement to which the contractor rightly or wrongly at that stage considers himself entitled and in respect of which agreement has not been reached".

Chappell (Ibid) says that a claim is a demand that one's rights be satisfied. He adds that the word "claim" is very emotive in the construction industry.

Parris (ibid) states that claim is an allegation that the express or implied terms of the contract were broken by the employer or his agent, the architect, for whom he is responsible within the area of that agent's express and implied authority.

New Webster's Dictionary (1979) defines claim as a demand of a right or supposed right; an assertion which is open to challenge, a right to claim or demand; a just title to anything; the thing claimed or demanded, especially a piece of public land staked out.

Denning (1979) has underscored the importance of using the right words. He says "on the words you use, your client's future may depend". He states that the reason why words are so important is because words are the vehicle of thought. Words should therefore be adequate in order to express the meaning which one wishes to express.

A word may have various meanings and hence the need to choose the appropriate meaning.

The word claim in this context is used in construction contracts where the parties concerned have conceded to the conditions contained therein. If one of the parties breaches one or some of the said conditions, then the other party is bound to make a claim. The definitions by Parris and Chappell are close to the meaning of the word claim as used in the construction industry.

It will therefore be assumed that the contractor has entered into a valid contract with the employer for the construction and completion of a project and consequently a breach has occurred and hence the word claim.

1.1.9 Types of Claims

In the construction industry there are two basic types of claim according to Chappel (1984):

- a) Claim for extra time to complete the contract. JCT 80, Clause 25 gives the various reasons for the extension of time. The architect should take prompt action to respond to the contractor's application for extension of time. If the contractor is given the extension of time, then he is exonerated from paying liquidated damages. This may also give him room to claim for direct loss and expense.
- b) Financial claims, extra money arising out of the contract. These are also regarded as claims which result from the express provisions of the contract. Such claims are variations and loss and/or expense. The contract empowers the architect to determine these claims.
- c) There are other claims which are outside the express conditions of the contract:

- i) Ex-contractual claims - they are claims which result from the breach of the contract's terms, which may be express or implied. These claims would also be referred to as common law claims for damages for breach of contract at common law. An example of this is the architect's postponement of works to be executed by the contractor.
- ii) Ex-gratia claims - (out of kindness) The employer is under no loyal obligation to meet such claims. They are also called sympathetic claims according to Powell-Smith and Sims (1983). An employer might agree to make an ex-gratia payment to save a contractor from insolvency where the cost of employing another contractor to complete the work would be more than the amount of the ex-gratia payment.

Claims usually arise from the conditions of contract entered between the employer and the contractor. The conditions stipulate duties and obligations of each party. The architect is under the legal obligation to advise the employer on the appropriate type of contract to use. Wallace (1970) wrote: "The time must be rapidly approaching which architects or legal advisers recommending the use without modification of some of the forms of the contract in general use at present in the United Kingdom (in particular R I B A forms) must be in serious danger of an action for professional negligence,".

The conditions of contract for example the J C T 1980, lay down procedures which the contractor has to follow when submitting his claim. The most important thing is to state the circumstances under which claims arise or grounds on which claims are based. Some of these grounds are covered under:

- Clause 13 - On variations and Valuation of such variations.
- Clause 25 - On extension of time.
- Clause 26 - On loss and/or expense.

Clauses 25 and 26 may not be closely related. An extension of time may be given without necessarily making the contractor to claim loss and/or expense under clause 26.

1.1.10 Submission and Evaluation of a Claim

The Contractor should produce any relevant evidence to support his claim. Chappell (Ibid) has stated that the evidence of minutes is excellent provided that it is minuted as agreed in the minutes of a subsequent meeting. Minutes that are not agreed have a reduced value for they may be taken as an individual's notes.

Letters are also an extremely valuable source of evidence because they indicate intentions and attitudes at the time of writing. Correspondence, as written evidence to another person, is potentially the best evidence save only for documents agreed and signed by both parties.

The clerk of works' diary provides great detail of site activities including defects and problems on a daily basis. The diary is reliable and forms an accurate account of the situation on site throughout the contract period.

The clerk of works acts as the architect's agent. The architect cannot, however, absolve himself from his responsibility because of the clerk of works' involment in the project.

The Architect is required to ascertain the amount or instruct the Quantity Surveyor to arrive at a reasonable amount. In arriving at the figure in question, the quantity surveyor has to look at the type of claim and the grounds which form the basis of the claim. The contractor's reference to the relevant clauses is very useful.

Care must, however, be taken to ensure that the clauses are not quoted out of context.

J C T 80, Clause 13 is very comprehensive in terms of the valuation of variations. The nature of work and the conditions under which the same has to be undertaken have to be taken into account. The bill rate is used as the basis. If the work is of a similar nature and done under same conditions, the bill rate is directly substituted. If the nature is the same and conditions are different, then the bill rate is used and then allowances are made to adjust the rate to cater for the conditions. A new rate is arrived at when the work is totally different.

Evaluation of claims on delay in completion are more complicated than variations. Establishment costs including profits have to be analysed and apportioned to the delay. The contractor has to provide this information and he might be reluctant to do so because of the confidentiality of some of the information.

Audited annual accounts could be a good source of data on the company's performance and profitability.

1.2 PROBLEM STATEMENT

The provision that contractors can claim is very useful in that it makes them to remain solvent. Claims in the construction industry originate from contracts entered into by the parties concerned. One of the parties breaches the terms of contract either expressly or impliedly and hence the origin of claim by the other party. Both employers and contractors have their rights to claim if breaches of contract occur.

Clauses like No 13 in the JCT 80 form of contract allows variations to be made to the contract and hence makes the latter workable. If such an allowance was lacking, the parties would have to enter into new contracts every time a variation was necessary.

The settlement of claims creates strained relationship between the client, the design team and the contractor. The adversarial feelings between the latter and the members of the design team are deepened. A lot of time is spent, especially by the quantity surveyor in analysing claims and also in agreeing on the same with the contractor. This is time consuming and unpleasant.

When contracts are let, designs may not be complete in most cases and these create room for many variations during the execution of the contract. The provision of the variation clause may cause the Architect not to design the project in detail, and hence the variations during construction.

The subject of claims is a great concern to the parties involved in the construction industry. Clients may find themselves being asked to pay amounts in excess of contract sums. Most of them may not take this matter very lightly.

Architects and Quantity Surveyors spend substantial amount of time in the settlement of claims with contractors. They would prefer to make use of their time in a more profitable way.

A contractor who makes numerous claims is not received very kindly by both the design team and the client. He may decide to limit the number of claims for fear of not being considered for inclusion in future tender lists.

Chappel (Ibid) states that a contractor who is "claim conscious" is disliked by the architect and the employer. Infact it's not only these two parties that do so

but also quantity surveyors and engineers. It may however be pointed out that Chappell is basically writing to Architects. He has underscored this fact by saying that Architects dislike dealing with claims because:

- i) It occupies time and energy that could be devoted to work elsewhere.
- ii) It implies increased costs which will displease the employer.
- iii) It may imply some lack of care on the part of the architect, which is embarrassing and could lead to some action against him by the employer.
- iv) Many architects do not know how to deal with claims properly.

The members of the design team would like to assure clients that they take their projects seriously. This would be displayed by projects which are completed on time and if possible without any claims.

On the other hand, contractors would like their balance sheets to show profit after the completion of the contract. This end can only be achieved by being keen to observe that contracts run with minimum disruption. If the situation proves otherwise, then, they are compelled to make claims in accordance with the relevant clauses as stipulated in the contract.

According to contractors, claims should be dealt with speedily and accurately so that they are sure of their position as far as time and money are concerned. It would be prudent if all the parties concerned were able to look at the issues in question in an equitable manner.

Contractors should ensure that they do not make claims for the sake of it and the design team should not thrash aside claims without looking at their merit.

1.3 OBJECTIVES

The objective of this research will therefore be:

- 1.3.1 To identify the principal sources of claims on construction projects in Britain. Some sources like numerous variations may have more effect on the magnitude of the claim than an extension of time. The study will therefore focus on the principal sources only because the minor ones may not have any serious consequences on the outcome of claims.
- 1.3.2 To identify the most outstanding types of claims (in terms of frequency of occurrence) with a view to increasing their awareness in the construction industry. Some claims like extension of time and variations occur more frequently than others in most contracts. Some claims have more impact on the magnitude of extra costs than others. The study will address itself to such claims.
- 1.3.3 To suggest the root cause of these claims in the construction industry.

1.4 HYPOTHESIS

In undertaking the research for this dissertation, the following propositions have been made concerning reasons which give rise to claims in the construction industry:

- 1.4.1 Clients do not allow adequate time for briefing during the inception period.

At the inception stage of the building process, the architect should ensure that he understands the client's requirements. This calls for sufficient time for briefing to be allowed by both the architect and the client.

Seely (1976) has said that the initial brief for a building project must of necessity be a broad and flexible statement of objectives in fairly abstract terms, defining such matters as the site, building type, space requirements, general comfort standards, desired approximate total budget, timescale for design and construction, and the estimated useful life of the building. These issues require that the architect holds several meetings with the Client in order to establish the latter's needs and then to reconcile the two major factors of cost and quality.

A client organisation which has professionals who are conversant with building industry find the task of briefing easier than an individual who does not possess sufficient knowledge of the industry. The nature of the client therefore determines the level of the architect's involvement in briefing.

Overlooking the process of briefing by either the architect or the client may result in numerous variations during the construction stage consequently giving rise to claims.

1.4.2 Inherent difficulties in interpreting the meaning of contract conditions

The clauses in contract conditions are constructed in legal languages which are usually difficult to understand particularly by parties to the contract who may not be lawyers. The wrong interpretation of the contract conditions may pose serious problems in a claims situation. The case of SHARP V. SAN PAULO BRAZILIAN RAILWAY CO. (1873) illustrates this point. Contractors agreed to construct a railway. The contract provided that the company should not, under any circumstances, be liable to pay the contractors a greater sum than £ 1,745,000, and the contractors bound themselves to execute and provide

not only all the work and materials, but also such other works and materials as in the judgement of the employer's engineer were necessarily or reasonably implied in and by, or inferred from, the specification, plans and sections. The contract also provided that the engineer's certificate of the ultimate balance of the account should be final and conclusive.

After completion of the works, the contractors claimed for payment in respect of extra works executed under the engineer's direction, alleging that they had done so upon the faith of his promise that they would be paid.

The court held that:

- i) The contractors were bound by the contract to complete the work for a specified sum of money.
- ii) The engineer had no power or authority to alter the terms of contract and that his promise to pay, if made, was unenforceable.
- iii) This was even so even if the amount of work was understated in the specification.
- iv) In the absence of fraud, the engineer's certificate was conclusive between the parties.

The contract was lumpsum and the company had contracted to pay for the specified quantity of excavations and not for anything more or less than that. The court commented that any variations in quantity cannot alter a contract under seal. It is necessary that the parties involved understand the implications of the clauses before they sign the contract. It provides a good chance to rectify errors which would otherwise have been impossible after the execution of the contract.

1. 4. 3 Risks in the construction industry are difficult to predict

Culyer (1985) says that an individual will require a higher interest rate to compensate for higher risks since risk is assured to be "bad" and individuals assured to be risk averse. This could also be said of contractors. They price their tenders high where they envisage high risks in the execution of the works. Effectively, they are passing risks to the employers.

The contractor should satisfy himself about the access to site and the nature of ground conditions before submitting his tender. The time usually allowed for tendering may not be sufficient for the contractor to do all the ground work in the preparation of tender. Consequently, errors may occur hence necessitating the contractor to claim.

Prices of materials are affected by escalations in exchange rates which are outside the control of the contractor.

Imported materials may also cause delay if they are delivered late. The contractor would not have the foreseeability of client's inability to make payments on time. These risks are difficult to predict and hence forcing contractors to make claims.

1.5 RESEARCH METHODS

The following research methods were considered for possible use in respect of this study:

1. 5. 1 Survey

This method involves the selection of a representative population sample at a given time and then asks questions regarding a particular problem. The results are analysed statistically and conclusions drawn accordingly.

1. 5. 2 Case study

It is a method which investigates a contemporary phenomenon; studies a situation when phenomenon and context are not clearly evident and it also studies a situation in which a multiple source of evidence is used.

The central tendency among all types of a case study is that it tries to illuminate a decision or a set of decisions; why they were taken; how they were implemented and with what result.

1. 5. 3 Historical Method

Its main concern is what causes events to take place. Existing literature on past events is studied and then conclusions are drawn.

1. 5. 4 Experiments

Scientific research involves setting up experiments and then make observations in order to draw conclusions on a particular problem. Experiments, however, divorce phenomenon from their context because the latter are controlled by a laboratory environment.

1. 5. 5 Interviews

Interviews require that an interviewer and an interviewee communicate verbally. Questions are asked and answers given spontaneously. Prior arrangements have to be made so that the parties concerned could meet and address themselves to the problem in question.

An interview could have structured or unstructured questions. In either case the questions should follow a logical sequence. The researcher should be very tactful in dealing with respondents who are usually very busy.

This method was adapted for this study because the subject of contractual claims is complex and that any misunderstandings of the subject matter could easily be rectified. The time for the study was short and therefore it formed an important factor in selecting this method including the assurance that one would get answers to the question.

The interview method may, however, be expensive and demanding in terms of travelling time.

Interviews were guided by a structured questionnaire and details of which are covered in Chapter 4 on analysis of interview results.

1.6 SCOPE

The subject of claims in the construction industry is very wide. It is, therefore, necessary to define the boundaries of the research. This study covers principal claims, risks in construction contracts, court decisions in connection with such claims.

The research will be restricted to South England with much concentration in the Reading area. South England was chosen because of its closeness to Reading University and also because most of the interviewees had their regional offices located in this locality.

The practice of construction etc is fairly universal and therefore it would be expected that the practice around Reading would be representative of the UK practice in general.

The following chapter will examine risks in construction contracts which may give rise to the incidence of claims in the construction industry.

CHAPTER TWO

2.1 RISKS IN CONSTRUCTION CONTRACTS

This chapter will address itself to the meaning of risks as related to claims including types and allocation of risks in construction contracts.

2. 1. 1 Definition of Risk

The Oxford dictionary defines risk as a possibility or chance of meeting danger, suffering loss or injury. The idea muted by this definition is that when one undertakes any enterprise, there is a probability that one may suffer loss. The latter may be difficult to determine at the inception of any undertaking.

The magnitude of risk depends on the nature of the project to be undertaken. Some projects are more risky than others. It is therefore necessary that the parties planning to promote a project understand what is involved in order to enable them to make a good decision before its commencement.

To achieve this, they have to know their obligations in executing the project and those of the other parties. These obligations are usually contained in an agreement between the parties, the apportionment of risks is done through the conditions of contract since they specify each party's responsibility. If one party feels that they are taking more risks than allowed, then they have a right to make a claim against the other party. One of the parties may claim that they have lost time or money as a result of bearing more risks than anticipated in the agreement.

Abrahamson (1984) states that in most works the unexpected happens; to be prepared for such eventualities and to forestall their effects is the test

of good construction practice. Abrahamson is underscoring the important fact that risks are unexpected and that they may be frequent. He commends parties that are able to plan in order to manage risks effectively.

Houtte (1988) says that risks constitute damages which are not caused by negligence. This may not however apply to all cases because damage caused by fire may result from negligence. She states that the common meaning of risk is the combined effect of the probability of occurrence of an undesirable event and the magnitude of the event mathematically expressed.

Risk = Hazard x Probability of Occurrence.

Insurance companies apply this principle when computing premiums which are a reflection of the magnitude of the risk. If the hazard and probability are high, then premiums are increased accordingly.

2. 1. 2 Risk Sharing

The concept of risk sharing originates in the thinking of insurance specialists. This concept requires that the party insuring should understand the dangers involved in an enterprise. It may, however, not be possible for one to envisage all the risks involved and therefore it becomes difficult to cater for all of them. Bruner (1985) recognises this fact when stating the four corollaries of Murphy's law.

Thus:

- a) Nature always sides with the hidden flaw.
- b) Anything you try to construct will take longer and cost more than you thought
- c) If everything seems to be going well, you do not know what is going on.

- d) The unexpected will always happen.

These corollaries show that uncertainties are difficult to predict. It is apparently impossible to envisage all risks in any enterprise.

Houtte (Ibid) says that the person who took the risk, will be responsible for the damage caused not only to himself but also to third parties who suffer damage. The risk taker should therefore understand the repercussions of taking risks. Parties involved in a business enterprise need to seriously consider the discipline of risk management, which calls for wide knowledge in the subject matter.

Abrahmson (Ibid) has given some guidance on risk taking:

A party should bear a risk where:-

- a) It is his control i.e. if it comes about, it will be due to wilful misconduct or lack of reasonable efficiency of care.
- b) He can transfer the risk by insurance and allow for the premium in settling his changes to the other party.
- c) The preponderant economic benefit of running the risk accrues to him.

These principles are very useful to a party that is contemplating taking a risk. He has to undertake a realistic evaluation of the risk in order to benefit from numbers (b) and (c) above. The party should therefore, be in a position to take full responsibility for their actions.

2. 2 RISK ALLOCATION IN CONSTRUCTION CONTRACTS

2. 2. 1 Contract Agreements and Risks

The principal purpose of construction contract agreements is to apportion risks between the employer and the contractor. This is achieved through use of meticulously drafted standard clauses during precontract period. The design team has to advise the client accordingly regarding the type of contract agreement to be used.

Turner (1988) has suggested the criterial to be used in selecting the most appropriate type of contract agreement:

- a) Speed
- b) Controllable variation
- c) Complexity
- d) Quantity level
- e) Price certainty
- f) Competition
- g) Risk certainty
- h) The type of client

The above factors when considered will lead to the selection of a suitable procurement system.

Different types of contract agreements apportion risks differently. Morris (1989) supports this view by saying that the criteria used in the selection of the particular procurement method in order to achieve a particular type of contract should be considered before tendering.

The parties to a contract should therefore take keen interest in the conditions of contract which seek to apportion risks. The various types of contract in use in the construction industry have been drafted taking into account the amount of risks involved.

Lumpsum contracts have fewer risks for clients since they establish the required budget in advance. Most of the JCT conditions are lumpsum contracts. They are usually used for building works. For lumpsum contracts, detailed project information is, however, required before going out to tender.

Parties in the construction industry have been moving away from traditional contracting practices because they have felt the need for equitable risks sharing. Some of them are of the opinion that the type of agreement used in government building contracts place most risks on contractors. This has consequently resulted to the evolvement of other contract conditions e.g. Design and Build and Management contracting.

Marshall and Morledge (Ibid) have said that Design and Build can offer speed, single point responsibility, inherent buildability and often certainty of price. The contractor bears most of the risks because he is treated as a designer. The standard of care and skill required of a professional man under common law should be met by the contractor. He may, however, absolve himself from this risk if he engaged a professional designer.

The contractor is also supposed to construct the project to be fit for the intended purpose. If the client has briefed the contractor on the intentions of the proposed development, then the contractor is under obligation to ensure that he fulfills this purpose. The contractor would otherwise run the risk of being negligent in case the design falls short of this requirement.

The client may have the risk of exorbitant extra costs if he decides to change his mind during the execution of the project. He also runs the risk of poor workmanship in this type of contract.

In order to minimise risks under design and build conditions of contract the client should undertake the following:

- a) Ensure that the brief adequately describes not just the physical design needs but also the intended specific use of the building.

- b) Ensure that the contract carries an adequate design liability insurance.

In management contracting, the client bears most of the risks. Turner (Ibid) has argued that the clients may wish to build as quickly as possible and they are therefore prepared to share the risk of uncertainty of final construction costs. In projects of this kind, finances may not be the constraint but time. The management contractor, who is treated as one of the design team, is entrusted with the responsibility of co-ordinating the project in order to complete on time. In this position, the contractor has been criticized as being risk free.

The Institute of Civil Engineers (I.C.E.) and Federation Internationale des Ingenieurs Consoils (F.D.I.C.) conditions of contract are measure and value contracts and hence are not lumpsum. They also allocate risks between the client and the contractor. The F.D.I.C. conditions of contract are a derivative from the I.C.E. conditions. Both contracts are used for engineering works.

F.D.I.C. conditions are used in international construction projects which presents the greatest business risks due to various reasons e.g management of many multi-parties, different levels of international productivity, language barriers etc

Contractors who have to undertake such construction are usually very big and this explains why such firms are few.

The two types of conditions apparently place more risks on clients because it may be difficult to know project final costs in advance. The nature of work also contributes to this problem. It is not possible to predict the extent of works with precision.

2. 2. 2. Risk Distribution in Construction Contracts

Construction contracts usually allocate risks in executing projects between clients and contractors. The parties to a contract should acquaint themselves with the conditions of contract to enable them to understand the risks involved in the project.

Lenton (1979) argues that the problem is not only to understand what the contract clauses say but also how the parties interpret the clauses. The problem of interpretation may give rise to misunderstandings which consequently may lead to claims.

The contract clauses contain specific and express conditions concerning the parties duties and liabilities. It is therefore prudent for the parties to go through each and every clause to ensure that they understand the meaning of the clauses before executing the contract documents. Some of the clauses if overlooked may have far reaching effects, in particular the exception clauses.

Brickford - Smith and Freeth (1980) states that there are three types of exception Clauses, 'those that:

- a) Limit or cut down the duty the law would normally impose on the defendant e.g. contractor agrees to carry out work on a certain date weather permitting. If delay results due to inclement weather, then there is no breach.

- b) Exclude liability for specified breaches of that duty e.g. excluding liability for loss however caused to goods. The case of LEVISON V. PATENT STEAM CARPET CLEANING CO. LTD illustrates this point.

A breach of this nature constituted a fundamental breach which is not acceptable.

- c) Limiting the defendant's liability in respect of the consequences of the breach of such a duty.

These exceptions underline the importance of understanding the contract clauses in order to reduce the incidence of claims.

Hughes (*Ibid*) states that the conditions of contract allocate risks likely to be met in the course of work to one party or the other. This, he says is both equitable and in the economic interest of the employer. He however, did not take that this would equally apply to the contractor.

It is necessary that contracts should allocate risks in such a way that justice is done and also seen to be done to the two parties. Consequently, this would uphold the principle of equitability of risk allocation in construction contracts.

James (1979) states that the power of the employer and contractor jointly to vary the contract is an important basic principle of law.

Parties to a contract are also at liberty to make alterations to or selections of the contract clauses by mutual agreement to suite their own ends. This allowance supports the principle of equitability as mentioned above.

Eastman (1984) has argued that there are many risks which are difficult to evaluate for purposes of pricing at the tender stage.

The major reason for this is that it is impossible to accurately predict uncertainties in future. Tenderers are therefore, not able to include all eventualities in their tenders.

Sweet (1982) states that the United States of America System seeks to preserve a large pool of contractors and obtain low contract bids by absorbing particular contract risks and seeking to assure the contractor that it will be fairly treated. This principle is sound since it is relevant to the welfare of the whole construction industry. For the industry to continue attracting resources and uphold a high tempo of competitive tendering, contractors have to remain solvent.

2. 3 IDENTIFICATION OF RISKS IN CONSTRUCTION CONTRACTS

Various authors: Eastman (1984), Abrahamson (1984), Bruner (1985), Audas and Wreghitt (1988) and Jennings (1989) etc. have identified and classified risks in construction projects as falling into following classes:

- a) Physical works
- b) Delay and disputes
- c) Direction and cupidity
- d) Damage and injury to persons and property
- e) Shortage of resources
- f) Government policy
- g) Conflict
- h) Labour demand and unrest
- i) Payments
- j) Inflation
- k) Arbitration and Law
- l) Exeptional and unusual weather
- m) Design discrepancies

- n) Variations
- o) Frustrations of contract by force majeure

Some risks consequently cause other risks e.g. variations enable contractors to get extension of time which may give them a licence to claim damages.

Fundamentally, there are no substantial differences in terms of clauses regarding risks and their allocation among the various standard contract conditions. Thus JCT 80 clauses would be considered as representative of most other conditions of contract. For the purposes of this study, the following classification of risks has been adapted:

Those arising from:

- 1) Possession of site
- 2) Delay
- 3) Discrepancy in or divergence between contract documents
- 4) Damage and injury to persons and property
- 5) Payments
- 6) Environmental hazards
- 7) Disputes

2. 3. 1 Possession of Site

The contract imposes an express duty on the employer to give possession of site to the contractor as stated in JCT 80 Clause 23. 1 : 'On the Date of Possession, possession of the site shall be given to the contractor who shall thereupon begin the works

The site is nowhere defined in the conditions, and its extent is a question of fact to be determined in light of all the circumstances. Failure to hand over the site on the agreed date or within reasonable time would constitute a breach

of contract. The date of possession could be indicated at the appendix of the conditions or be agreed by the parties. Risks which arise under this clause are usually borne by the client.

2. 3. 2 Delay

JCT 80 Clause 25 covers cause of delay which may result from extension of time. Some of these causes are force majeure, exceptionally adverse weather conditions and Architect's instructions among others. Audas and Wreghitt (1988) have defined force majeure as an act of God, a circumstance which no human foresight can provide against, and of which human prudence is not bound to recognize the possibility.

Extraordinary events which effect the progress of work are war, fire, strikes, epidemics etc. Such happenings are beyond human control. These events may result to frustrations of contract. The client would pay to the contractor the cost of construction excluding profits. In a way, therefore, the contractor also bears some risks.

JCT 80 Clause 4.1 requires the contractor to comply with the Architect's instructions. Such instructions may involve changes in access to the site, magnitude of work, postponement of work etc.

Architects instructions as stipulated in JCT 80 Clauses 13 may result to variation orders which include additions, alteration or omission of any obligations or restrictions by the employer in the contract bills.

The contractor has the right under clause 4. 1. 1 to make a written objection in regard to compliance with an instruction. Contractors should however, use this clause with caution since it may result to unnecessary conflicts.

There are various reasons which may cause delay in executing a construction contract:

a) Client's obligations

The client is required to hand over the site to the contractor, after the award of the contract. This may, however, not be achieved because the site may still be occupied by residents, the site access may be unavailable and local authorities approvals may not be obtained on time.

The client should take precautions in regard to these factors before the award of contract since the risks resulting from such would be his responsibility.

b) Architect's obligations

The Architect or Engineer acts as the Clients Agents. He has various duties which he has to perform on behalf of the client. Such duties include taking brief and preparing drawings which accurately represent the client's needs.

He also administers the project by giving directions to the contractor and the other members of the design team in accordance with JCT 80 conditions of contract.

Sufficient time should be allowed for the client to brief the architect since failure to do so may result in the former not getting what he had intended originally.

Drawings should also be detailed or completed before calling tenders failure to adhere to this may result to unnecessary delays during the construction period which would be detrimental to the client.

Sims (1979) states that the client must be made aware of the consequence of not providing the Architect with all information as to his requirement in

sufficient time to enable the architect design the building properly.

He also says that architects need to design and thoroughly detail the project, to enable quantity surveyors to prepare accurate documents. Sim (Ibid) also insists that quantity surveyors must prepare tender documents that accurately reflect the work to be undertaken and must not mislead a tenderer into thinking that the work has been fully designed and detailed when it has not.

The issues raised herein are pertinent since if not taken seriously may cause numerous variations resulting to delay in the completion of the contract.

Big contingency sums may be allowed for in projects where design has not been completed. They pose problems to the contract administration and also may cause risks of contract overruns.

c) Contractor's obligations

A contractor may also cause delay by the way they execute the works. Proper planning and procurement of resources are important ingredients for efficiency in undertaking a project. Delays which result from these factors are the responsibility of contractors and they run the risk of paying liquidated and ascertained damages.

Jennings (1989) defines liquidated and ascertained damages as a method of ensuring punctual execution of the contract, the contract will frequently contain provisions stating that in the event of the works not being completed by a certain time, an amount will be payable by the contractor to the employer.

He also says that liquidated damages are an attempt to regulate the rights of the parties before things go wrong and thus to avoid the necessity of going to court and relying on less predicatable remedies.

Damages should however reflect a true picture of the actual loss that the client would suffer in case of delay.

Audas and Wreighitt (Ibid) say that there should be a genuine pre-estimate of the damages likely to be suffered by the employer should the whole of the works not be completed on time. Courts reject damages if they are applied as a penalty.

Clause 24 (JCT 80) says that the Architect has to issue a non-completion certificate which would then authorise the employer to recover damages.

d) Nature of the Construction Industry

The nature of the construction industry also contributes to the risks encountered by the parties to the contract. Many teams of professionals, producers e.g. contractors, sub-contractors and suppliers are involved in the production of the project. Co-ordination of all the above teams requires high level of managerial skills.

Turin (1972) supports this fact by stating: " The effect of fragmentation of the construction industry is that there are difficulties in co-ordinating the interventions of the main participants and in ensuring that, although their motivations may be different and their interests conflicting, their energies are channelled to a common goal".

Morris (Ibid) has suggested that tighter organisational integration is required when:

- a) The goals of an entity (project) require different groups to work together.
- b) The environment is complex and changing rapidly.
- c) The technology is uncertain or complex.

These factors would apply to a building project and hence calling for integration. Fast track contracts eg. design and build and management contracting are said to be good examples of integration in building projects.

Risks which arise from lack of integration could be attributed to both the client and the contractor.

Clause 25. 2 (J C T 80) makes it mandatory for the contractor to give a notice of delay to the architect. It does not matter who is responsible for the delay.

The notice must give:

- 1) Details of all the material circumstances surrounding the delay.
- 2) Statement of the cause or causes of delay.
- 3) A suggestion of the relevant event which the contractor believes must have caused the delay.

Myers (1989) has given the following criteria to be used when proving delay:

- 1) Delay is recognizable in the totality of the performance time and not merely in interim phases.
- 2) Delay regarding the claim must be separated from the rest not concurrent with the others which would have caused delay.
- 3) The delay that is solely caused by the employer must be isolated - additional cost sustained by the Contractor must be priced reasonably.

Contractors would find it easier to justify their application for extension of time if they adhered to the above criteria.

The Architect is contractually bound to consider the Contractor's notice of delay and to inform the Client accordingly about the probable consequences of extension of time. The latter is a remedy to the Contractor since he is

exempted from the damages clause. Extension of time may also give the Contractor a licence to claim prolongation costs.

J C T 80 Clause 26 sets out requirements which a contractor should fulfil if he has to claim for loss and/or profit in connection with extension of time. The Contractor should ensure that he adheres to such requirements. In evaluating a contractor's claim, the architect should be considerate. Wallace (Ibid) says that the following principle should be borne in mind when preparing or reviewing a contractor's claim: "The plaintiff is entitled to be placed, so far as money can do it, in the same position as he would have been had the contract been performed".

The architect should therefore seek to recompense the contractor for his losses.

Mc Pike and Kutner (1989) say that every construction contract has a contractual baseline which comprises of scope, schedule and conditions. If there is a change in any of the three basic elements, the contractor is bound to claim. The reason being that each change increases the contractor's job cost and decreases his profit, unless an appropriate adjustment is made to the contract.

Trickey (1979) states that the contractor may seek for recompense by including items such as materials, plant, preliminaries, labour, head office overheads and profits in his claim supporting evidence on these items in terms of records would be very useful.

Powell - Smith (1987) states that many contractors' claims for loss and/or expense fail because they are not backed up by supporting evidence. He also says that contractor's entitlement is to recover the actual loss and/or expense which is directly caused by the event giving rise to the claim.

The loss and/or expense must be caused directly by the event eg late information resulting to delay. Lawyers call this the principle of causation. It is necessary for contractors to realise that such a claim must be directly related to the cause otherwise the claim may be rejected.

Professional presentation of claims would be helpful to a contractor. The onus is on him to substantiate the claim. Site records and audited company accounts would go a long way to assist the contractor to prove his claims.

The contractor, however, bears the risk of the preparation of the claim.

2.3.3 Discrepancy in or divergence between contract documents

JCT 80 Clause 2.2 provides that discrepancies between the bills and standard method of measurement or in descriptions, quantities or omitted items shall be corrected and such corrections treated as variations

JCT 80 Clause 2.3 deals with other kinds of discrepancies between the contract drawings, bills and architect's instructions.

Clause 2.3,4 provides that upon notification by the contractor the architect "shall issue instructions in regard thereto".

Contract documents generally comprise the form of tender, drawings bills of quantities, schedule of agreement and conditions of contract. These documents should be co-ordinated in order to avert probable incidencies of risks.

Before the preparation of contract document, site surveys and soil tests should be undertaken. Results from trial holes and other investigations are used by architects and engineers when designing the project. Consequently such information is used by quantity surveyors to work out quantities to be included in the bills of quantities. If the site surveys and soil tests were inaccurate, they would affect quantities in the bills of quantities.

The Client should engage a qualified surveyor who would undertake a comprehensive site survey although it is not possible to take trial holes for the whole site, the exercise would reduce the element of risk.

Drawings are used in the preparation of bills of quantities. As earlier stated, any errors or incompleteness would be reflected in the bills. It is therefore necessary that detailed and complete drawings are prepared before the compilation of bills of quantities. The latter are also supposed to be prepared in accordance with the standard method of measurement. Contractors may take advantage of any discrepancies in tender documents to make a claim.

Chavasse (1979) argues that most obscurities seem to have arisen by comparison of provisions in one part of a bill with those in another; and by comparison of provisions in the bills with those in the standard method of measurement and by comparison of the three.

Descriptions in the preliminary bill may differ with those in the measured work. The problem may arise because of using standardised specification which is not adjusted to cater for specific projects.

Accurate site surveys may reduce the many disputes which result from claims in rock, sand and water which could be very high in any construction project. The seriousness of this risk is expressed by Chavasse (Ibid): "I look back at arbitrations I have been engaged upon, and the many more potential arbitrations which were settled, and I am struck by the number which have involved uncertainty as to what the contractor is entitled to be paid for in the event of his meeting unexpected ground conditions. I think I must have spent more time arguing rock, sand and water than anything else".

The cost involved in excavating rock and pumping out water from big construction projects could be enormous. This could easily eat up contingencies and cause the client a strained budget. The importance of serious site investigation cannot therefore be over emphasised.

Bruner (Ibid) has said that documents will be "taken as mutually explanatory of one another". Contract agreements state that discrepancies will not vitiate the contract.

Discrepancies and errors in contract documents is the responsibility of the Client. The reason being that the parties who prepare the documents as earlier stated are his agents. Eastman (1984) reinforces this fact by stating that "it is submitted that a rational, equitable and optimum allocation of risk of unexpected or unusual adverse site conditions should be assumed by owners". Consultants engaged by clients should therefore act with reasonable care in order to minimise the risks to the clients.

2.3.4 Damage and injury to persons and property

JCT 80 Clauses 20,21 and 22 deal with insurance which covers risks on damage and injury to persons and property.

Clause 20 provides an indemnity by the contractor to the employer in respect of claims arising from personal injuries to anybody or the death of anybody arising out of or in the course of or caused by the carrying out of the works.

The indemnity exempts injuries or death due to any act or neglect of the Employer.

Clause 21 requires the contractor to insure against injury to persons and property. He should also ensure that his sub-contractors also do likewise.

Clause 22 deals with alternative insurance provisions.

Clause 22 A is intended for adoption where it is the contractor who is to insure in joint names of himself and the employer on a new building site.

Clause 22 B - To be used for new building works when it is intended that they shall be at the sole risk of the employer.

Clause 22 C - To be used for renovation work or extensions or alterations to existing buildings. The risk is placed on the employer.

Risks under this heading could be disastrous if they ever occurred. It is therefore imperative that adequate insurance cover is taken to cater for such risks. The architect is periodically to ensure that the parties adhere to this requirement.

The biggest part of costs on preliminaries goes to premiums to cover damage and injury to persons and property. The cost of reinstatement would be exorbitant if fire broke out destroying all that which has been constructed including adjacent properties. The insurance cover must, therefore, be sufficient to cater for full reinstatement value of the works and the professional fees.

Powell Smith (Ibid) states that the use of the term "full value will increase in amount as the contract progresses and it is in the contractor's interest that he is adequately covered, or otherwise he may find himself heavily out of pocket. If monies paid to him under reinstatement certificate are insufficient to rest the damaged work, remove and dispose debris, the extra cost will be borne by the contractor.

Powell - Smith (Ibid) argues that insurance is a very complex business and the contractor as well as the client are advised to seek advice from an insurance broker who is a specialist in construction projects. He also states that the employer would take the responsibility of fire inspite of who caused the same.

More claims on insurance tend to arise when the client has insured the works. The reason being that the contractor and his servants may not restrain themselves from being negligent. This may, therefore, result in the client incurring a lot of expenses and hence making the project very expensive.

There may be an argument however, that it is the insurance company that will pay, but it is important to note that this will make the client to pay higher premiums which would be detrimental to him particularly if he is not a one-time developer.

2.3.5 Payments

The contractor is under the obligation to finance the construction project. He has to make arrangements to obtain an overdraft through a bank or other financial institution for this purpose. The strength of the financial value of the contract awarded may make the process easier.

The contractor undertakes the work and he is then paid for the same in interim payment. JCT 80 Clause 30.1.2 provides that interim valuations shall be made by the Quantity Surveyor whenever the Architect considers them necessary.

Clause 20.1.3 requires that interim certificates to continue to be issued at the specified intervals up to and including the end of the period during which the certificate of Practical Completion is issued. The intervals are as per the contract but they are usually on monthly basis. The employer is entitled by the contract to deduct from the sums certified by the architect certain specific and liquidated damages as set out in JCT 80 Clause 24.2.

The equitable right to set-off may create financial problems to the contractor. Lord Denning M.R. in *Dawnays V Minter* (1971) said: "An interim certificate is to be regarded virtually as cash, like a bill of exchange. Payment must not be withheld on account of cross-claims, whether good or bad - except so far as the contract specifically provides."

He repeated this view in *Kilby and Gayford Ltd V. Selincourt Ltd* 1973 and said: "So long as a certificate is good and within the authority given by the contract, then it is in accordance with the conditions, it must be honoured."

Clients should take the issue of honourably certificates very seriously because it may cause financial embarrassment to contractors who may decide to determine their own employment.

For the contractor to remain solvent, certified payments should be honoured on time.

Payments due to the contractor resulting from variation or other express conditions of contract like fluctuations as stipulated in JCT 80 Clauses 38, 39 and 40 should be included in interim payments. Clause 13 gives guidance as to how variations should be valued. The bill rate is used as the basis and then adjustments as to the nature and conditions of doing the work are adjusted for Quantity Surveyors have been criticised for using bill rates to value variations without taking account of the context and conditions under which the variations are carried out. James (Ibid) states that many surveyors seem to price all variations on bill rates or rates deduced from them.

Currency devaluation could greatly affect the contractor because it would make resources more expensive to acquire particularly if they are imported.

Bankruptcy of the client, contractor or the sub-contractors would create a risk to the parties concerned.

2.3.6 Environmental hazards

The environment hazards constitute risks which could adversely affect the performance of the project

Bennett (1985) describes in qualitative terms the complexity of environments faced by major construction projects during their early formative stage.

He identifies three groups which have the capacity to interfere with projects. These are politicians, government bureaucracies and special interest groups within the local community. These groups may exert influence at any stage of the project.

The groups would affect the approval of a project including imposing by-laws which may be difficult to meet. Governments may also levy taxes on materials and services creating risks for the parties involved in the construction.

There may also be shortage of labour and materials hence affecting performance and productivity in any project.

The risks involved under this heading are covered under JCT 80 Clauses 25,26, 38, 39 and 40 among others. These clauses have been referred to earlier.

Most of the risks under environment hazards are the responsibility of the Client.

2.3.7 Disputes

Franks (1986) has said that most building contracts provide for disputes to be settled by arbitration. He stresses the fact that contractors should prepare claims with this view in mind that what they present would be read by an arbitrator.

JCT 80 Article 5 gives the procedures to be followed when parties want to result to arbitration. It also refers to the option of litigation.

The arbitrator has to be appointed by the agreement of the two parties, failure to which the President of RIBA would be asked to appoint. The decision of the arbitrator is final but it can be challenged in litigation.

The two parties run the risk of delay in resolving disputes. The latter may take as long as three years or more to settle.

There are other risks such as injustice, cost of obtaining decision and enforcement of the same.

Litigation may also run the same risks.

SUMMARY

The above types of risks considered in terms of occurrence and the importance placed on them by authors would be ranked as follows:

- 1) Delay
- 2) Discrepancy and divergence in contract documents
- 3) Payments
- 4) Site possession
- 5) Environmental hazards
- 6) Disputes and Law
- 7) Damage and injury to persons and property

The following chapter will look at the court decisions which have been made in connection with these types of risks.

CHAPTER THREE

3.1 IMPORTANT COURT DECISIONS ON CONSTRUCTION CONTRACT CLAIMS

Sweet (Ibid) has said that courts interpret constitutions, determine validity of statutes and administrative rules and interpret these statutes and rules as well. He further states that in common law system, the courts operate more directly as lawmakers.

Lower courts are bound by decisions of higher courts. All decision makers usually seek guidance from the past. Sweet (Ibid) reiterates this fact by stating that within a particular judicial system judges must decide matters in accordance with earlier decisions of higher courts within the system. The same principle of courts relying on precedents is also applicable to cases in the construction industry.

The aggrieved party in a construction contract may result to litigation in a court of law. Such a party is referred to as the plaintiff. The latter should state his case in accordance with the relevant clause.

Literature search and the interviews that the research undertook on contractual claims have shown that the aggrieved parties to a contract in the construction industry also seek redress in courts. Claimants contend that their rights in the contract have been infringed and therefore the offending party should recompense them. The employer or his agent might have breached some of the conditions of contract and hence making the contractor to result to litigation and vice versa.

Litigation may also arise out of breaches of common law duties. Such duties are not covered under the contract and therefore the law of negligence would be used as the basis.

Before making their verdict, courts would listen to the evidence from the two sides which would be based on relevant conditions of contract allegedly breached or the breach of duty of care as stipulated in common law. The courts would also refer to case law and look at the grounds used in earlier cases to pass verdict on similar cases.

Precedents have continued to play a key role in caselaw.

The remaining part of this chapter will examine court decisions regarding various claims in the construction industry with a view to identify the principal sources of claims, the most outstanding claims and the root causes of such claims.

Court cases on the following areas will now be examined:

- a) Possession of site
- b) Discrepancies in contract documents
- c) Delay and prolongation
- d) Loss and/or expense
- e) Damage to property

3. 1. 1 Possession of site

Research has shown that possession of site is one of the sources of contractual claims. It is an implied condition of contract that the contractor be given possession of site with immediate effect. This condition is fundamental since without adherence to it, the contractor cannot fulfil his contractual obligation to undertake the works and complete the same within the stipulated time.

In spite of the above provision in the contract, disputes have arisen in connection with the date of possession. It is acceptable that the parties may

mutually agree to delay the date of possession to a reasonable date. The case of FREEMAN & SONS V. HENSLER (1900) relates to the date of possession.

The plaintiff contracted with the defendant to demolish old houses and erect new ones, the work to be completed within six months. The defendant had requested for delay of two weeks in the site possession but it took nearly five months before the plaintiff got possession of the whole site. The plaintiff claimed damages for breach of contract.

The court held that:

It was an implied term of the contract that the contractor would be given the possession of the site immediately. The agreement between the parties had waived that obligation, and substituted a reasonable time.

As the possession had not been given within a reasonable time, the plaintiff was entitled to damages for the loss which he had sustained by reason of delay.

This court decision supports the implied condition that the employer would hand over the land for the purpose of allowing the contractor to do that which he has bound himself to do. Failure to do this, would make the contractor to claim for the losses caused by delayed site possession.

The other aspect of site possession which has given rise to claims is the extent of site possession. Parties to a contract may dispute the fact that the whole site should be handed over to enable the execution of the works.

Courts have given interpretation on the extent of site possession. The case of THE QUEEN IN RIGHT OF CANADA V. WALTER CABOTT CONSTRUCTION LTD (1975) illustrates this point:

Cabott contracted with the Crown for the erection of a hatchery building. The contract was one of six contracts for the project as a whole. The work required under two of the later contracts interfered with Cabott's work because they encroached on the site. Cabott claimed damages for breach of implied terms relating to possession.

HELD: Cabott claim succeeded. The Crown was in breach of contract by denying Cabott part of the site. A clause of the contract providing that there were no implied terms was ineffective because it is fundamental to a construction contract that working space should be provided unimpeded by other.

If the whole site is not provided, it interferes with the contractor's performance hence resulting to disruptions. If the employer does not guard against this problem, the contractor is bound to use partial possession as a basis to make a claim.

The date for site possession and the extent of possession are sources of claims.

3. 1. 2 Discrepancies in contract documents

Discrepancies in contract documents have been found to be a source of contractual claims. Contract documents are drawings, bills of quantities and conditions of contract. Bills of quantities are required to be measured in accordance with the standard method of measurements.

Errors on the drawings or bills of quantities are treated as variations. Conditions of contract e.g JCT 80, state that discrepancies in contract documents shall not viate the contract. The question then arises as to why there are claims on discrepancies in contract documents. One of the reasons is that one party thinks that there is a discrepancy whereas the other thinks otherwise.

For instance, one party may insist that an item is included in the quotation but the other party argues that the contract does not provide for such. The parties may therefore refer such claims to courts for the latter's interpretation and decision.

The case of BRYANT & SONS V. BIRMINGHAM HOSPITAL SATURDAY FUND (1938) is illustrative of this matter. The contractor agreed to construct a convalescent home under the earlier version of JCT 63 Form of Contract Clause 11. This provided that the quality and quantity of the whole work included in the contract sum shall be deemed to be that which is set out in the bills of quantities prepared in accordance with the standard method of measurements. The latter provided that the soil conditions shall be stated and that the rock shall be measured separately but these were not included in the bills of quantities. The contractor raised a claim on the basis that the rock encountered should be treated as extra over the normal excavation.

The court held: The contractor was entitled to treat excavations in rock as extra and that it should be paid as an extra cost over the excavation. This showed that discrepancies between contract documents are a source of claims.

Parties to a contract should understand what is included in the contract documents and note what the contract agreement says about such documents. Clarification should be sought before the execution of contract.

3. 1. 3 Delay and prolongation

Actions of the client or his agents may cause delay by not providing information on time. Research has shown that this is one of the major causes of claims.

Employer's direct contractors may delay completion of their jobs hence making contractors late in completing their work. In instances like this, the contractor makes claims on extension of time.

The case of HENRY BOOT CONSTRUCTION LTD V. CENTRAL LANCASHIRE NEW TOWN DEVELOPMENT CORPORATION (1980) supports this view.

The claimants were main contractors employed to erect 296 dwellings and 77 garages at Dunkirk Lane, Leyland, Lancashire for the respondents. The contract was substantially in the 1963 Edition. Clause 23 required the contractor to give written notice of the cause of the delay to the Architect/Supervising Officer.

The Employer had directly engaged statutory undertakers to execute specialists works. The undertakers caused delay to the main contract works. The arbitrator referred this matter to court to decide whether the statutory undertakers could be taken as employer's direct contractors.

The court answered in the affirmative because the works done by the statutory undertakers did not form part of the main contractor's work. The statutory undertakers had also contracted with the employer to do the work. Delays to the main contract works by the employer's direct contractors are a source of claim.

When a delay is caused by matters in the contract, the problem arises as to who should bear the risk. In such instances, each party thinks it is the other party who should bear the risk. The case of LAWSON V. WALLASEY LOCAL BOARD (1882) illustrates this point.

Lawson contracted with the defendants to remove 10,000 cubic yards of the bed of River Mersey within a specified period. Delay was caused by

non-removal of staging by the employer as provided for in the contract. The employer refuted the allegation and the case landed in court. The court decided in favour of Lawson.

Parties to a contract should understand their obligation and accept their responsibility in case of a breach failure to which may give rise to claims.

3. 1. 4 Loss and/or Expense

The area of loss and/or expense has been a source of claims. After an extension of time has been awarded, the question arises as to whether or not that the contractor is entitled to pecuniary compensation. Contractors are of the opinion that they should be compensated whereas clients think the opposite. There is also a problem of interpretation of what each party thinks comprises loss in terms of productivity, inflation etc.

The conditions of contract do not give answers to these questions and therefore the parties have to turn to courts for interpretation.

The case of CROUDANCE CONSTRUCTION LTD V. CAWOODS CONCRETE PRODUCTS LTD (1978) gives some answers to the above questions. The plaintiffs were main contractors for the erection of a school and they contracted with the defendants for the supply and delivery of masonry blocks.

The defendants were not under any circumstances liable for any consequential loss or damage caused or arising by reason of late supply or any default, failure or defect in any material or goods supplied.

The plaintiffs claimed against the defendants in respect of alleged late delivery and defective materials.

They sought to recover:

- a) Loss of productivity
- b) Inflation costs resulting from delay
- c) Sub-contractors claims in respect of delay in their work.

The question which the court had to address itself to was whether such damages would be regarded as consequential loss. The court decided that they were direct loss.

The contractual principle of causation that the loss and/or expense must be directly related to the event in question has to be met in claims of this category.

Parties to a contract find it difficult to justify profits to contractor when the employment of the contractor has been determined. The conditions of contract do not provide for loss of profit as a direct loss. Consequently the parties have resorted to arbitration or litigation to resolve this issue. The case of WRAIGHT LTD V. P. H. & T. (HOLDINGS) LTD (1968) gives direction as to whether loss of profits should be treated as a direct loss.

Wright Ltd were building contractors engaged by P.H. & T. (Holdings) Ltd to do certain building works. The latter were suspended through an architect's instructions due to difficult soil conditions. Wright determined their employment. The matter resulted to arbitration and the arbitrator sought guidance from the court as to whether open profit could be treated as direct loss.

The court decided that the claimants were entitled to recover profits as being direct loss as money which could have been made if the contract had been performed.

Conditions of contract should spell out expressly and in detail what each party is entitled to claim under loss and/or expense in order to reduce the incidence of claims under this heading.

3. 1. 5 Damage to Property

Damage to property has been one of the sources of claims in the building industry. If fires break and damages the property under construction, then the works have to be reinstated.

Construction contracts have provisions for insurance cover for the works under construction. Such cover should be provided either by the contractor or the employer. The insurance company would therefore be required to reimburse the clients the loss suffered. Sometimes, the insurance company may try to exonerate themselves by laying the blame to the clients or contractors. The latter may also do the same to clients. The company may also think that the amount being claimed is excessive. Consequently, this becomes a dispute which may eventually land in court.

The case of ENGLISH INDUSTRIAL ESTATES CORPORATION V. GEORGE WIMPEY & CO (1973) seeks to clarify the issue of liability when fire breaks.

A big fire broke on 18th January 1970 at Hartlepool gutting most of the factory causing damage estimated at £250,000.

The factory was leased to Reeds Corrugated Cases Ltd by English Industrial Estates Corporation. The factory used to manufacture corrugated card boards.

In 1969, Reeds requested to have the factory extended to a large extent. The corporation agreed to undertake the extension while Reeds continued making the cardboards.

They engaged Wimpey to carry out the works under the RIBA conditions of Contract.

Wimpey had a floated policy which covered the works against fire and other perils until practical completion.

The contractor had handed over some parts of the factory when it was gutted by fire and they argued that the corporation was to blame for the fire.

The Architect had not however issued certificate for practical completion. The matter landed in court and Wimpey were held liable.

The parties refusal to accept their liability for damage to property becomes a source of claim.

SUMMARY

Conditions of contract provide guidance on how disputes would be settled if they arose in a construction project. The conditions however do not go into the details as to how to specifically settle the said disputes.

Parties to a contract may also bring up claims on a particular clause which are totally different from what other parties may have claimed. The reason being that conditions of contract are the same but the nature and complexity of the projects are different. The conditions would therefore be inadequate in handling disputes which may arise from such projects. The courts, therefore, interpret the conditions of contract and apportion the risks accordingly after receiving the requisite evidence. The judges also use precedents set on previous cases of a similar nature to enable them to decide on present cases.

The cases in this chapter confirm that possession of site, discrepancies in contract documents, delay and prolongation, loss and/or expense and damage to property as sources of claims in the construction industry.

CHAPTER FOUR

4. 1 ANALYSIS OF INTERVIEW RESULTS

Interviews were decided to be an effective method to undertake research on contractual claims. The prime reason for this choice was due to the complexity and technicality of the subject matter.

The most important purposes for carrying out the interview was to identify the principal source of claims and the most outstanding type of claims (in terms of frequency of occurrence and magnitude in value) and to suggest the root causes of these claims in the U.K. construction industry.

To achieve this end, it was expedient to interview firms that were involved in the industry. The criteria for selecting the interviewees was basically on their professional standing in terms of size and also their availability.

Thirty firms were selected from the yellow pages of the telephone directory, for South England as follows:

Contracting	10
Quantity Surveying	10
Architectural	5
Engineering	5
	<hr/>
	30
	<hr/>

Letters of inquiry were sent to the thirty firms with the view of establishing their existence and also their willingness to participate in the interviews. Six of the firms responded positively and through their recommendation, the other four firms were obtained. The interviews were therefore based on the combination of firms.

Contractors	4 No
Quantity Surveyors	4 No
Architect	1 No
Engineer	1 No
	<u>10 No</u>

The total number of respondent firms was 10 with the breakdown of each type of firm as shown above.

The sample was considered adequate for this type of research because:

- i) Given this study represented 33% of the 30 firm picked.
- ii) Given the area of study, (claim considered to be sensitive by many firms), a positive response of 33% was considered reasonable.

The firms interviewed were well established with most of them operating offices in other regions. The persons interviewed were at the level of regional directors. They were mature and experienced in their own professions.

Claims as an area study is considered to be a sensitive area and not many people in the industry are prepared to discuss it freely. It is surrounded with general fear that if one discussed claims openly, the parties concerned may sue them. For this reason, an appropriate approach had to be made first by assuring the interviewees of the confidentiality with which their interviews were to be held.

The interviews were conducted through structured questionnaire which proved very effective in terms of saving time. See the appended questionnaire in Appendix I.

The questions covered details of the firm, the type of the project and the contract used, factors which contributed to claims including their significance and also information on how the claims were settled.

The questions were composed in such a way that they enabled the respondents to give answers in regard to the identification of the principal source of claims; the most outstanding claims and suggesting the root causes of these claims.

The interviewees were given a chance to explain the reason for their answers in the questionnaire. This enabled them to talk freely and hence the interviewer was able to obtain more insight into the problems of claims.

The following tables show the details of the projects considered in the interviews. Their locations have not been disclosed for the sake of anonymity.

TABLE 1: DETAILS OF THE ANALYSED PROJECTS

O.	Type of Project	*C.o.C used	Contract sum (£m)	C.P. (weeks)	E.O.T (weeks)	Extra Granted (£m)
1.	Shopping Centre	JCE 80	15.0	280	312	25.0
2.	Office Extension	JCT 80	1.8	44	7	0.1
3.	Fitting out	JCT 80	1.0	32	8	0.2
4.	Commercial	JCT 80	3.0	80	10	0.2
5.	Offices cum Commercial	JCT 80	8.8	78	24	1.7
6.	Offices	JCT 80	1.6	32	4	0.02
7.	Refurbishment	Gc/works 1	3.4	43	10	0.1
8.	Refurbishment	Gc/works 1	3.4	112	40	1.6
9.	Dam	FIDIC	44.0	260	36	49.0
10.	Facilities for Pharmaceutical Industry	ICE	35.0	44	10	5.0
11.	Office block	Gc/works 1	3.6	104	18	0.9
12.	Residential Units	JCT 80	13.3	80	28	0.7

* C.o.C - Conditions of Contract

C. P. - Contract Period

E.O.T. - Extention of Time

TABLE 2: CLAIMS ON THE ANALYSED PROJECTS

Source of Claim	No of Projects on which extension of time was granted	No. of projects affected by claim and for which extra cost was incurred
Local Authority's approval	2	2
Physical conditions	2	2
Increment weather	2	2
Late/inadequate information	10	10
Variation orders and site instructions	10	10
Payments	1	1
Damage and injury to persons and property	1	1
Environmental hazards (strikes)	2	2
Disputes	2	2
Discrepancy in contract documents	2	2
Late site possession	2	2

4. 2. DATA ANALYSIS

4. 2. 1 Extension of Time

All the projects as shown on table 1 were not completed on time but instead required extra period. The most peculiar project is the shopping centre No. 1 which took an extra 312 weeks to complete. This project was a development by a private client. It was undertaken during a period when there was a limitation of a three (3) day working week in U.K. (1972) resulting from industrial unrest and government intervention. This affected procurement of material and site operations. The client also brought in the requirements of the tenants during the execution of the works hence causing disruption.

It was also alleged that the architect issued numerous variations seriously affecting the volume of work. In this particular project, there was lack of regular flow of information from the architect. These events could have led to determination of the contract if the parties concerned decided to stick to the conditions of contract.

It is interesting to find that even the project with the least contract value (£0.4m) had a contract period overrun of ten weeks. Generally the time overruns for both civil and building works were comparable.

The fixing of contract periods were questionable because the times were apparently not realistic.

This view was also collaborated by the contractors interviewed. This may have been the reason behind the non-completion in time of many projects.

4. 2. 2 Extra cost over contract sum

The shopping centre project No. 1 and the dam project No. 9 had extra costs of £25m and £49m respectively. The numerous variations and the project taking excessively long to complete explain the reason for the extra cost for the shopping centre.

The major reason for the extra cost for the dam is price fluctuations in materials and labour which amounted to £25m. Other factors included tax and bonus paid to the contractor for acceleration of the contract.

Civil engineering works also tended to cost more than building works because of their unpredictability, as shown on table 1" it was difficult to determine the extent of works in civil engineering projects.

The other project which had substantial increment was No. 1 which comprised a laboratory, computer room and a facility for the pharmaceutical industry. The reason given for this is that the client did not know what he wanted and also fire gutted the computer room hence causing delay. Labour dispute including lack of steel pipes did also contribute to the extra cost.

The increase on cost for the other projects were not very substantial. The extra cost is directly tied to extension of time and variations on the contract.

4. 2. 3 Client's Brief

The majority of the interviewees complained of the client's shortcomings in providing comprehensive brief.

Most of the projects suffered from inadequate client's brief. Clients changed their minds during the execution of the project hence causing delay and making contractors to claim for disruption of the works.

This was apparently a bigger problem with private clients than with public works. The former lay more emphasis on time whereas the latter have cost as their priority.

The Americans have a saying "Time is money" and the private clients take it with a lot of seriousness. The financial benefit of this may be eroded if the contract sum is overrun because of inadequate brief.

4. 2. 4 Architect's and Engineer's actions as a source of claims

Late inadequate information including numerous variation orders and instructions were the top on the list of the sources of claims. The designers should ensure that they have given full thought to their designs before calling tenders.

They should also consider how the details would be constructed. The designers may have very busy schedules but this is not an excuse for them to produce half baked information. They owe a duty to their clients to produce fully designed drawings.

4. 2. 5 Other Sources

The other sources of claims stipulated on table 2 had also contributed to claims. Their impact on claims varied. Some of the sources eg. local authority's approval and physical conditions call for the client to take action in advance before calling tenders. Inadequate site investigations contributed substantially to the two projects concerned.

Sources such as environmental hazards, disputes, damages and injury to persons and property were difficult to predict. These cause a same delay.

4. 2. 6 Settlement of Claims

Claims apparently took long to settle. There were some which went for as long as three years before settlement. The reason for this was that arbitrations and litigations were lengthy and expensive. There were no projects where claims were settled in a fast maner. This seemed to be a great concern to the parties involved.

4. 2. 7 Sources of Claims

The answers from the interviewees established the following as the sources of claims:

- a) Late and inadequate information.
- b) Variation orders and site instructions
- c) Local authority approval
- d) Physical conditions
- e) Environmental hazards
- f) Disputes
- g) Dickeypancy in contract documents
- h) Late site possession
- i) Payments
- j) Damage and injury to persons and property

The most outstanding of the above sources were numbers (a) and (b). The sources included on the list could influence the magnitude of claims in different ways.

4. 3 PROBLEMS

The study identified various problems in connection with the subject of claims.

4. 3. 1 Contract Periods

The times allocated for the completion of the projects were apparently inadequate. This view was supported by the contractors' complaints and also by the fact that most of the projects were not completed on time.

This means that contractors would not complete the works during the contract period. Contractors may therefore be forced to look for reasons to enable them to apply for time extension. Consequently, this becomes a source of dispute.

4. 3. 2 Client's Brief

Clients did not consider their brief seriously resulting to many changes during construction. Many claims on disruption of works were due to this factor. Clients in the public sector took a long time to brief architects due to bureaucracy and also because of their responsibility regarding public accountability.

4. 3. 3. Site Investigations

Site investigations contributed to claims. In some instances, claims under this heading could be enormous. Clients do not seem to understand the use of comprehensive site investigation.

4. 3. 4 Settlement of Claims.

The current procedures of settling claims are lengthy and expensive. Some cases took three years or more to settle. This would worsen the relationship between the client and the contractor.

4. 3. 5 Contract Conditions

The conditions have clauses eg. the one on liquidated and ascertained damages which may have negative effect to contractors when undertaking the construction of the project. These clauses should be modified to provide motivation or reward to contractors when they complete the construction before time.

SUMMARY

The interviews showed that the principal sources of claims are: Late and inadequate information, Variation orders and Site instructions, Late possession of site, discrepancy in contract documents, payments and Local authority approval.

The most outstanding types of claims, were on time extension and loss and/or expenses.

The major root causes of claims were in adequate client's brief and site investigations. Execution of the contract by architects, engineers and contractors also contributed to the claims.

The following chapter will endeavour to suggest solutions to the problems mentioned above and also make recommendations regarding claims in the construction industry.

CHAPTER FIVE

5. 0 CONCLUSIONS AND RECOMMENDATIONS

5. 1 PRINCIPAL SOURCES OF CLAIMS

The general conclusions of this study are that the following are the principal sources of claims:

- i) Late and/or inadequate information from the employer or his agents e.g. the architect or engineer.
- ii) Variation orders and site instructions from the architect or engineer.
- iii) Late possession of site
- iv) Discrepancies in the contract documents namely the drawings and bills of quantities
- v) Late approval by local authorities
- vi) Misunderstanding or misinterpretation of the conditions of contract
- viii) Increment weather

5. 2 EXPLANATION AS TO WHY THE PRINCIPAL SOURCES OF CLAIMS ARISE

5. 2. 1 Late and/or inadequate information and Variation Orders

The most outstanding source was late and/or inadequate information from the employer or his agents. Contractors were unable to get drawings on time.

Numerous variation orders beyond what was allowed for was also a big contribution as a source of claims.

The above sources of claims may be an indication that the employer or his agents did not spend adequate time in investigations and preparation of tender documents before going out to tender.

The following may be the reasons for this state of affairs:

- i) Clients lack knowledge in what happens in the design and construction processes. Complexity of the construction industry contributes to this factor.
- ii) Clients are too busy and usually do not spend sufficient time to brief the architect or engineer.
- iii) Client's organisations or individual clients may not give architects information on time and hence make architects to delay in providing the same to contractors.
- iv) Architects or engineers may not have sufficient human resources to produce drawings as required by the contract.
- v) The professional fees structure is such that it does not motivate designers to resolve construction details at the design stage. Hence problems of detailing are postponed until post contract period when most variations occur.

Bulk of professional fees is released to designers when design work is complete (pre-contract). Less money is earned for post-contract work hence designers feel less obliged to consider construction problems during the construction period. The conditions of engagement should be revised to take care of such an anomaly.

5. 2. 2 Late possession of site and late approval by local authorities

The client should take action at the inception stage of the project in connection with possession of site and approval by local authorities.

The Client may, however, be unable to do so because of the following reasons:

- i) As stated above, the client may not have knowledge about the processes involved in the construction industry.
- ii) He may think that he would commence construction as soon as he decides to construct. He would be surprised when he commences the project to learn that there are required notices when it comes to vacation of site by residents. Local authorities may also require notices in connection with change of user.
- iii) The local authorities also take unnecessarily too long to grant approvals for construction projects. These would effectively cause delay in the commencement or completion of the projects

5. 2. 3 Discrepancies in contract documents

The following may be generally referred to as contract documents:

a) Schedule of agreement and conditions of contract

b) Drawings

c) Bill of quantities

discrepancies may therefore be difficult to notice until after the contract has already been let.

- ii) The standard forms of contract may not cover peculiarities in construction projects. This means that special features like complexity and the method of executing the works may not be taken into account and hence resulting to discrepancies during execution.
- iii) The client may not allow sufficient time for the design team to co-ordinate the documents during the pre-contract period. The reason being that he wants the tenders called as soon as possible particularly if funds have been borrowed and set aside for the project. The client would, in this case, like to minimise the cost of construction finance.
- iv) The earlier issues of standard methods of measurements e.g. SSM 5 and SMM 6 did not address the issues of complexity and the construction process of the projects. These may have contributed to discrepancies in the tender documents.

5. 2. 4. Misunderstanding and Misinterpretation of the conditions of contract

The following reasons may have contributed to this source of claim:

- i) The conditions are drawn in legal language which is difficult to be understood by a lay person.
- ii) Clients may not receive the correct advise in connection with the conditions to use regarding the type of project in question. This may mean that some of the clauses would not be applicable to the

project hence becoming areas of contention.

iii) Some clauses eg. the Arbitration clause refer to the methods of settling disputes. Some of the methods involve other Acts which also stipulate how such decisions should be settled. The provisions like the arbitrators award being confidential and final may later on become sources of claim where there is a reasoned award. Failure to make the reasoned award public would make other contractors to claim under the same heading.

5. 2. 5 Inclement weather

Contractors miscontrue what entails inclement weather and they may use cases of heavy rainfall as constituting a good reason for claiming extension. The vagueness of inclement weather as stipulated in the contract documents may give rise to a claim.

5. 3. OUTSTANDING CLAIMS

The study has shown that the most outstanding types of claims in construction contracts are:

5. 3. 1 Extension of Time

The above sources of claims result in causing delay to the completion of projects necessitating contractors to apply for extension of time.

It is common knowledge that in most cases projects are not completed on time. One of the major reasons for this is that clients usually fix the contract period without considering the construction process or the complexity involved

in the project. Contractors may, therefore, have to devote more resources than are usually required to beat time. The methods used by clients to fix the contract times pose the problem of the periods being too tight. Such methods need a close examination.

5. 3. 2 Disruption and Prolongation costs

Contractors make claims under this heading if disruption of the works in terms of the manner in which the project is undertaken. Contractors may also think that they could claim prolongation costs after the extension of time has been granted.

Such claims may arise due to misunderstanding of the various requirements which should be fulfilled before a claim under this heading is made.

5. 4. RECOMMENDATIONS

It is necessary to minimise claims in the construction industry since they take valuable time from the parties to a contract which could have been used in more productive ways. The following recommendations have therefore been made in the hope that they would minimise claims:

5. 4. 1 Clients should take more keen interest in the design and construction processes of their projects. This would entail allowing sufficient time to brief the architect and the engineer.

5. 4. 2 Clients should engage an expert to prepare a brief where the client does not possess the required knowledge or where he is too busy.

5. 4. 3 The design team should endeavour to ensure that there is coherence in the contract documents. This could be achieved through:

- i) Architects should verify data from site surveys before incorporating the same in the drawings. He should ascertain from the surveyor that the site investigations were accurate.
- ii) The Quantity Surveyor should also clarify with the architect any information on the drawings which is not clear to him before he prepares the bills of quantities.
- iii) The architect or engineer should ensure that all the documents agree with each other before going out to tender.

5. 4. 4 Conditions of contract should be considered seriously before being used for any particular project and could be achieved as follows:

- i) The nature and complexity of the project and the type of client should be taken into account. This means considering the amount of risks involved.
- ii) The right choice of the form of contract and periodic review of the standard forms in order to incorporate proposed changes.
- iii) Standard forms such as design and build and management contracting have been challenged in the way they allocate risks. Such forms should be amended to cater for such criticism or adopt other forms e.g. Association of Consultant Architects (ACA) conditions of contract which are simple in application.
- iv) Discarding clauses which have been notorious as a source of claims.

5. 4. 5 Court decisions have been made for a long time in regard to interpretations to conditions of contract.

A summary of caselaw should be compiled and used to aid the re-drafting of conditions of contract.

5. 4. 6 Decisions made by arbitrators particularly reasoned awards should be made public. This would be educative to the contracting parties and hence reduce the incidence of claims.

5. 4. 7 Profession bodies have an important role to play in educating the prospective employers in connection with briefing and other issues which affect the performance of the project. Institutions e.g. RIBA, RICS etc should undertake more T.V. interviews to enlighten the public on the relevant issues. Other types of media may also be used.

5. 4. 8 Conditions of engagement for the professionals involved in the construction industry should be reviewed to allow for a substantial amount of fees to be released during the post contract period.

5. 4. 9 Contract Periods

Methods of fixing contract periods should be revised in order to make contract periods realistic. Critical path analysis which could allocate time per activity would be a very useful tool to this effect. It would be however time consuming but in the end it would pay.

The recommendations if employed in construction projects could go a long way towards minimising the number of claims in the construction industry.

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7. Were the following professionals engaged on the project?

	<u>Yes</u>	<u>No</u>
Architect
Structural engineer
Services engineer
Civil engineer
Quantity surveyor

8. Was the client
 Private developer
 Local authority
 Central government?

9. Did the client have professional advisers from his company or employees?
 If yes, who were they
 Architect
 Quantity surveyor
 Engineer
 Other?

Section C - Claims

1. Who initiated the claim
 Client
 Contractor?

2. Which factors contributed to claims?

3. In regard to delay, what grounds were given as the causes of delay?

4. Was any extension of time given?
 If yes, by how many weeks?

Did the contractor claim loss and expense in connection with the delay?

If yes, how much was granted? £.....

5. Of the factors mentioned above in No.2, which five of them contributed significantly to the claim

Extra cost

Extension of time

- 1.
- 2.
- 3.
- 4.
- 5.

6. In this particular project, which factors do you think greatly contributed to claims?

.....

Section D - Causes of claims

1. In your opinion, do you think the employer allowed sufficient time for briefing the members of the design team? (Y/N)

2. What reasons would you suggest for your answer above?

.....

3. Would the number of variations have been reduced/increased if the situation were different? (Y/N)

Please give your reasons for this answer:

.....

4. Which clauses in the conditions of contract were used as the basis of claims?

Head of claim

Clause

- 1.
- 2.
- 3.

5. Did the parties' educational and professional background play any role in the dispute? (Y/N)

6. Did misinterpretation of the contract conditions contribute in to the claims in any way? (Y/N)

Please explain:

.....
.....
.....

7. Would some legal background have helped the claimant? (Y/N)

8. Did the bills of quantities cover the factors raised above comprehensively? (Y/N)

Please explain your response:

.....
.....
.....

9. Is there a way in which all the factors raised above could have been eliminated? (Y/N)

Please explain:

.....
.....
.....

Section E - Settlement of the claim

1. Were the claims agreed between the contractor and the members of the design team? (Y/N)

2. Did you notice any difficulties in the settlement? (Y/N)

If yes, what were they? Please give details:

.....
.....
.....

3. What role did the members of the design team or employer play

.....
.....

4. What role did the contractor play?

.....
.....

5. Did the contractor have any difficulty in supporting his claim?

.....

Would you like to make other comments on this subject?

.....
.....