TITLE

LIABILITY AND INSURANCE IN THE KENYAN CONSTRUCTION INDUSTRY: AN EVALUATION OF THE USE AND PERFORMANCE OF PROFESSIONAL INDEMNITY INSURANCE POLICIES.

BY:

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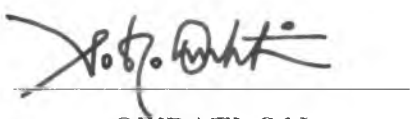
DECLARATION

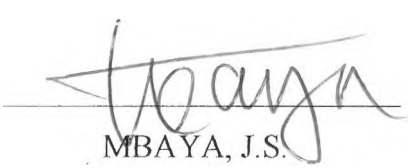
I, STEVEN NYARAMBA OMBATI, do hereby solemnly declare that this project is my original work and has not been presented in any other university.



OMBATI, S.N.

Declaration by Supervisor

This project has been submitted for examination with my approval as a University Supervisor.



MBAYA, J.S.

DEDICATION

This work is dedicated to my loving parents, for their care and support, and for all other members of my family.

ACKNOWLEDGEMENTS

I would like to extend my appreciation to a number of persons who have contributed to the development of this work:

Firstly, to God under whose fatherly providence I have been able to carry out and complete this project.

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ABSTRACT

The use of professional indemnity insurance policies is one of the ways that a professional may opt for to limit the financial consequences of an action being brought against him for professional negligence.

This research aims to find out the extent to which professionals in the construction industry use professional indemnity insurance and how effective it has been in limiting the financial effects of professional negligence for professionals.

Professional indemnity insurance policies are a useful way of settling claims for professional negligence. Many professional firms working in the construction industry possess these policies, but there are relatively few cases of claims for professional negligence which have settled using the policies.

There is a need for greater awareness on the concept and application of professional indemnity insurance, greater emphasis and encouragement of its use and for more interaction between insurance companies and professionals working in the construction industry so as to determine the features of professional indemnity policies that are best suited to the construction industry.

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CHAPTER ONE

1.0 INTRODUCTION

A profession is defined in the Oxford English dictionary as "a vocation in which a professed knowledge of some department of learning or science is used in its application of the affairs of others or in the practice of an art founded upon it."

The term received judicial interpretation in the case of *Commissioners of Inland Revenue v. Maxse (1919)* as involving "...the idea of an occupation of manual skill controlled...by the intellectual skill of the operator, as distinguished from an occupation which is substantially the production or sale or arrangements for the production or sale of commodities."

A professional, Roffey (1983) notes, is a person who by virtue of qualification and/or experience holds himself out as being competent to give advice or assistance in his chosen professional field. Chege(2001) quotes Thompson as describing a professional as being the agent of the client, acting on his behalf in matters of great moral, physical or financial importance, often in ways whose validity or purpose the layman has no means of judging for himself. Examples of professionals are architects, engineers and quantity surveyors.

In some cases, the professional may not exercise the required degree of skill and care expected of him in the performance of his duties and this may occasion loss to his client. Roffey(1983) likens the professional in such a situation to a manufacturer who sells a faulty product and should be liable for the consequences that follow. In the case of the professional, the faulty product is his professional negligence.

Mururu (1983 pp.20) gives the definition of negligence from the case of *Blyth v. Birmingham Waterworks Company* as "...omission to do something which a reasonable man would do, or doing something which a prudent and reasonable man would not do."

Professional negligence arises when a professional becomes liable to pay out certain sums of money as a result of any negligent act, error or omission by the said professional when carrying out his ordinary professional activities.

Cornes (1985) gives an analysis of settled claims on professional negligence in the United Kingdom and outlines four stages at which the professional in the construction industry has been negligent.

These are at the:

- Pre-design stage- during survey of land and existing buildings.
- Design stage- negligent design, inaccurate calculations, using untested materials and construction methods.
- Negligence in service- failure to adequately advise the client, obtain statutory consents and to instruct the contractor.
- Supervision- not inspecting work diligently and failure to detect defective work.

The professional today faces a greater risk of professional negligence than before, according to Cornes (1985), because of increasing technical developments in the construction of buildings and structures, heightened claims consciousness of employers and changes in the law of liability for professional negligence.

Miller (1987 pp.11), states that, "Whilst the escalation of liability is the dominating consideration in the minds of most, it is more of a symptom than a cause."

In the event of a professional being held liable for professional negligence, it is highly doubtful that he would be financially capable of providing compensation from his own

resources. He may not even be able to afford the cost of any investigation to establish the cause of the event and whatever basis for defence may exist: Bunni (1986).

Bunni (1986) gives what he terms "the ultimate option" for the solution of the above situation which the professional may find himself in: insurance. Professional negligence is covered by a specially designed insurance policy known as a Professional Indemnity policy.

A Professional Indemnity Insurance policy "protects the insured against his liability to pay damages in respect of personal injury, loss or material damage due to [the insured's] negligence or that of his employees in the course of professional conduct of his business" Bunni(1986).

The Board of Registration of Architects and Quantity Surveyors (BORAQS) underlines the importance of the use of professional indemnity insurance by the issuing two practice notes on this matter. In Practice Note 35 of 28th July 1995 the Board

> "...notifies all persons, it is professional misconduct to practice as unlimited or limited companies or firms without valid professional indemnity insurance."

In a later Practice Note 38 of 30th October 1998, the Board reiterates its commitment to have it members take out professional indemnity insurance policies by reminding them that it is professional misconduct to practice without such policies and encouraging them to register their firms with Practice Register available at the Board's offices.

The use of the professional indemnity insurance policies therefore appears to be an important element of professional practice in the construction industry in this country.

1.1 Problem Statement

A preliminary survey carried out by the researcher in which 20 randomly selected professionals were interviewed showed that some of them did not possess professional indemnity insurance policies as required by BORAQS, and they generally did not have too much knowledge regarding the provisions of the professional indemnity policies. The professionals that did have the said policies had not used them to settle any claims for professional negligence.

The purpose of this study is to examine the use of professional indemnity insurance by the professionals in the construction industry in Kenya and to evaluate how effectively it has performed in limiting professional liability. It also aims at identifying ways in which current professional indemnity policies can be strengthened.

1.2 Organisation of the Study

The research is organized into five different chapters, each of which touches on a different aspect of the research work. The basis structure is as follows:

Chapter One deals with the introductory matters to the research: setting out the statement of the research problem, the research hypothesis, the objectives of the research, its significance and scope and the research methodology to be used in carrying the study out.

Chapter Two deals with the literature reviewed on the relevant topic. It analyses the need for the professional indemnity insurance by defining the roles and duties of the professional, how professionals may be held negligent for breach of these and the ways of limiting their liability.

Chapter Three deals with the use of professional indemnity insurance as a method of limiting professional liability. It sets out the general functions and principles of insurance policies and analyses the provisions of professional indemnity insurance policies.

Chapter Four deals with the presentation and analysis of data collected from professionals and insurance companies.

Chapter Five deals with the conclusions drawn from the research and recommendations made on the basis on the basis of these findings.

1.3 Hypothesis

Lack of awareness and the few reported cases of professional negligence in the construction industry have caused professional indemnity insurance not to be fully utilized in this country and have prevented it from performing effectively in limiting claims for professional negligence.

1.4 Objectives of the Study

The study of the use and performance of the professional indemnity insurance policies seeks to fulfill the following objectives:

1. To investigate the usefulness of professional indemnity insurance policies as a means of limiting professional liability.
2. To assess the methods used in settling professional negligence cases and in limiting professional liability.
3. To determine the extent of usage of professional indemnity insurance policies in the Kenyan construction industry.
4. To evaluate the performance of professional indemnity insurance policies in handling negligence claims.

5. To identify features of professional indemnity insurance policies suitable for the construction industry.

1.5 Scope of the Study

The study was conducted in Nairobi due to the fact that most of the construction industry professionals- architects, engineers and quantity surveyors- are based in the city. Additionally, many of the insurance companies offering policies for the construction industry also have their head offices in Nairobi. Nairobi is the capital city of Kenya and serves as its major commercial, industrial and financial centre. Only those insurance companies offering professional indemnity policies were targeted.

The study was limited to the insurance companies offering professional indemnity policies and those professionals in the construction industry based in Nairobi- to seek their views on how professional indemnity insurance is utilized now and how its role can be strengthened- because of monetary and time constraints.

1.6 Significance of the Study

Professional indemnity insurance has an important role to play in the construction industry. It is one of the ways of limiting the risk that professionals face on account of acts of professional negligence committed by themselves or members of their staff. Some employers, especially on large contracts, require the professionals involved to have valid professional indemnity insurance policies before they are engaged to carry out the consultancy services.

In a preliminary survey carried out by the researcher, some of the professionals interviewed did not seem to know much about professional indemnity insurance, saying that it is a specialist field outside their area of expertise.

This study aims to shed some light on what professional indemnity insurance is, how extensively it is used, what kind of policies are currently available and how its use can be strengthened.

The findings will be of benefit to professionals practicing in the construction industry, to professional bodies interested in encouraging the use of professional indemnity policies, and to insurance companies that offer or may wish to offer such policies to consultants in the building industry.

1.7 Research Methodology

1.7.1 Research design

This research is a survey research. Gay (1983) in Mugenda and Mugenda (1999 pp.164) defines a survey as "an attempt to collect data from members of a population with respect to one or more variables." The study aims to seek information that describes the current use and performance of professional indemnity insurance by asking professionals and insurance companies about their attitudes and perceptions on this topic.

1.7.2 Research area

The study is based in Nairobi which is the capital city of Kenya, and is home to most of the professionals and insurance companies which are targeted.

Wangai (2001) quotes the 1999 Population and Housing Census Report as putting the city's population at 2.14 million people. It is the largest city in the country and serves as the administrative, commercial, financial and industrial centre of the nation.

1.7.3 Data collection

The research will involve the use of both primary data and secondary data.

The primary data will be obtained mainly by issuing questionnaires to architects, engineers, quantity surveyors and insurance companies. Each of these groups has a different type of questionnaire prepared for them; but the questionnaires to the professionals are identical except for one question. The information from the questionnaires will be supplemented by interviews with the professionals and representatives of the insurance companies where it is possible.

The secondary data will be obtained from textbooks, professional journals, magazines, research projects and theses.

1.7.4 Population, sample and sample size

The target population consists of all the professionals working in the construction industry in Kenya and all the insurance companies in the country. The sample was drawn from the accessible population of professionals and insurance companies based in Nairobi.

Stratified random sampling will be used to select the professionals from the population such that the various sub-groups (architects, engineers, quantity surveyors) are adequately represented in the sample. Simple random sampling will be utilized to select the sample of insurance companies.

The population is composed of the following:

a) 82 architectural firms obtained from a listing at the following Architectural association of Kenya's secretariat.

b) 98 consulting engineering firms obtained from a list at the offices of the Engineers Registration Board.

c) 78 quantity surveying firms obtained from a listing at the Architectural Association of Kenya's secretariat.

d) Insurance companies registered with the Commissioner of Insurance.

The sample size will be selected, bearing in mind constraints in time and other resources, using the formula below:

$$n = \frac{z^2 pq}{d^2}$$

Where:

n= the desired sample size.

z= the standard normal deviate at the required confidence level.

p= the proportion in the population estimated to have the characteristics being measured.

q= (1-p)

d= the level of statistical significance set.

For the sample:

- P is chosen as 0.2
- Q = (1-0.2) = 0.8
- For 90% confidence level in the data, the z-statistic obtained from normal distribution tables is 1.645
- The level of statistical, significance is 0.1

$$n = \frac{z^2 pq}{d^2} = \frac{(1.645)^2 \times 0.2 \times 0.8}{(0.1)^2}$$

$$n = 43$$

Thus at 90% confidence level, 43 firms should form the sample. The sample selected will be 60 firms with 20 architectural firms, 20 engineering firms and 20 quantity surveying firms.

The sample for the insurance companies was selected on the basis given by Gay (1983) in Wangai (2001): that for a descriptive study, 10% of the accessible population is sufficient for a sample.

A sample of 13 insurance companies out of 62 was selected. This represents 21% of the accessible population, which is adequate for representation purposes.

1.7.5 Data presentation and analysis

The data collected will principally be descriptive in nature and will be presented in the form of tables, charts and graphs. It will be analysed using simple statistical methods.

CHAPTER TWO

THE NEED FOR PROFESSIONAL INDEMNITY INSURANCE

2.10 Introduction

"The professionals are nowadays exposed to the floodgates of 'liability in an indeterminate amount for an indeterminate time to an indeterminate class' of people." (Bunni, 1986, quoting from the case *Ultramares Corporation v. Touche*).

The need for professional indemnity insurance arises because of the risk of professional negligence that a professional faces in the course of carrying out his duties. Bunni (1986) claims that this policy is of recent origin when compared with other insurance covers.

Historically, builders faced severe consequences for the effects of their poor design. Hammurabi's code of 1760 BC provided for the death of a builder whose house collapsed and killed the house owner, or for that of his son where the son of the owner of the house was killed. Royce and Royce (1994) say that the eyes of the architect of the Taj Mahal were removed on the orders of the king to prevent him from designing such a beautiful building again.

In recent times, however, the emphasis has changed. According to Royce and Royce (1994), "during the last 15 years a formidable spectre has cast its shadow over a most enjoyable profession: liability for professional negligence."

Digby(1989) defines professional negligence as "a failure to meet the standard of care to be expected from the average competent and experienced practitioner as to render the professional person committing the act, error or omission liable in law to a client or some

other third party who occasions reasonably foreseeable loss by reason of reliance on that act, error or omission."

The consequences of professional work done shoddily today may not be as drastic as those of olden times, but they are still quite serious. They are primarily financial, with adverse effects on professional reputation, morale and judgement from colleagues following. Professional indemnity insurance is one of the ways of protecting oneself against the effects of professional negligence.

This chapter defines the professionals who work in the construction industry, sets out their duties, gives cases where they have been held to be liable for professional negligence and outlines some of the methods that may be used to limit the consequences of professional liability.

2.20 The Professionals

2.2.1 Definition of a Profession

Alfred North Whitehead defines a profession as "an avocation whose activities are subject to theoretical analysis, and are modified by theoretical conclusions derived from that analysis". This was to distinguish it from a craft which he saw as "an avocation based upon customary activities and modified by the trial and error of individual practice".

In "The Professions" published in 1933, Carr –Saunders and Wilson ventured to give the definition of profession as "a vocation in which a professed knowledge in some department of learning or science is used in its application to the affairs of others or in the practice of an art founded upon it". The Carr-Saunders Report on Education for Commerce adopted the description: "any body of persons using a common technique who

form an association the purpose of which is to test competence in the technique by means of examination".

Everet C. Hughes (1965) says that the term "profession" originally meant the act of professing, but has subsequently taken the following meaning: "The occupation which one professes to be skilled in and to follow... a vocation in which professed knowledge of some branch of learning is used in its application to the affairs of others, or in the practice of an art based upon it ..."

In "Jackson and Powell on Professional Negligence", professions are regarded to possess the following features:

- The nature of the work. The work undertaken by professionals is of a skilled nature and is primarily mental as opposed to physical. In order to perform the work well, a period of training has to be completed.

- The moral aspect. The professionals are committed to a set of moral standards over and above the general duty to be honest. They should provide a high standard of service for its own sake. They have a duty to uphold the confidentiality of their clients' information and owe a wider duty to the community.

- Collective organisation. There normally exists a professional association, to which the practitioners belong, which seeks to uphold the standards of the profession. The associations test the competence of their potential members via examinations and have codes of conduct or professional ethics.

- Status. Professionals generally have a high status in the community, with privileges being granted either by parliament or by common consent.

W.E. Wickenden is quoted Wangai (2001 pp.14) as giving a list of attributes which mark off the life of a group of persons as "professional in character".

"We may place first a Body of Knowledge (science) or of Art (skill) held as a common possession and to be extended by united effort.

Next is an Educational Process based on this body of knowledge and art, in ordering which the professional group has a recognised responsibility.

The third is a Standard of Professional Qualifications for admission to the professional group, based on the character, training and proved competence.

Next follows a Standard of Conduct based on courtesy, honour and ethics, which guides the practitioner in his relations with clients, colleagues and the public.

Fifth, we may place more or less formal Recognition of Status by one's colleagues or by the state as a basis of good standing.

Finally there is usually the organisation of the Professional Group, devoted to its common advancement and its social duty rather than the maintenance of an economic monopoly".

Hughes (1965) states that a profession delivers esoteric services – advice or action – to individuals, organisations or the government. The essence of the professional idea is that professionals claim to know better than others the nature of certain matters. They claim the exclusive right to practise the arts which they profess to know and to give the kind of advice derived from their special lines of knowledge. "The professional is expected to think objectively and inquiringly about matters which may be, for laymen, who are subject to orthodoxy and sentiment which limit intellectual exploration." Hughes (1965)

Barber (1965) attributes four essential features to professional behaviour: a high degree of generalised and systemic knowledge; primary orientation to the community interest

rather than to individual self interest; a high degree of self control of behaviour through codes of ethics; and, a system of monetary and honorary rewards.

The professionals commonly engaged in the process of construction are architects, engineers and quantity surveyors.

2.2.2 Definition of Construction Industry Professionals

2.2.2.1 Architects

"Hudson's Building and Engineering Contracts" describes an architect as a person who is skilled in the art of building and who is competent to design buildings and to supervise their erection. The profession received judicial definition on the case of *R. v. Architects' Registration Tribunal (1945)* as:

> "An architect is one who possesses, with due regard to aesthetic as well as practical considerations, adequate skill and knowledge to enable him (i) to originate, (ii) to design and plan, (iii) to arrange for and supervise the erection of such buildings and other works calling for skill in design and planning as he might in the course of his business reasonably be asked to carry out or in respect of which he offers his services as a specialist."

An architect must have a good grasp of building techniques and be able to produce adequate drawings and have the ability to supervise the carrying out of the work and to administer the contract between the employer and the contractor. Other activities carried out by the architect include making the choice of specialist contractors, inspection of the works, proposing solutions for problems that may be encountered during the course of putting up the building, notifying the contractor of any defective work and the issuance of certificates.

Therefore, in addition to the creation of new ideas and setting those down on the drawing board, the duties of an architect extend to other fields of technical knowledge and business management.

The use of the name "Architect" is restricted by the Architects and Quantity Surveyors Act (Cap525). No one may practise or carry any business under any name, style or title containing the words "Architect", "Architecture" or "Architectural" unless he is a person registered under the Act.

Registration of architects in Kenya is carried out by the Board of Registration of Architects and Quantity Surveyors, which consists of eight members, four of whom are nominated by the Minister of Public Works with the rest being nominated by the Architectural Association of Kenya and approved by the Minister.

The Act sets out the qualification for registration as an architect as being restricted to persons who:

a) Have attained the age of twenty-one years; and
b) Either have had a minimum of five years of approved training plus a year of practical experience, or have been admitted to an approved professional institution; and
c) Have had a minimum of one year of professional experience in Kenya; and
d) Have paid the prescribed registration fee.

Majority of architects, in addition to being registered, also belong to the professional body, Architectural Association of Kenya (AAK). This institution has a code of conduct for their member which gives an indication of the sort of behaviour expected of them.

Seeley (1987) lists the architect's duties as:

- Preparation of preliminary schemes.
- Submission of an outline planning application.
- Preparation of sketch plans.

- Preparation of working drawings and invitations for tenders.
- Receipt of tenders and advising the employer on contractor selection.
- Supervision of construction work.
- Certifying payments to the contractor throughout the contract.
- Issuing variation orders and other instructions.
- Directing how provisional sums should be spent.
- Securing the remedying of defects at the defects liability period.
- Certifying the final accounts.

2.2.2.2 Engineers.

The name engineer is derived from the Latin word *Ingeniatorem* meaning the one who is ingenious or clever or cunning in devising. The Institution of Civil Engineers describes the profession as the art of directing the great sources of power in nature for the use and convenience of man. Engineers in Kenya generally fall under a number of specialised branches: civil, structural, mechanical, electrical.

Masselin (1879) describes a civil engineer as one who professes knowledge of the design and construction of works such as bridges, docks, canals, railways, roads, embankments, water drainage, gas works and factories. The basic characteristic of civil engineering work is that, with the exception of special superstructures like bridges and dams, the great majority of the work is concerned with construction at or below ground or water level.

Structural engineering has evolved to a greater extent because of the engineering needs of the modern buildings which have moved away from the traditional construction of load bearing walls to framed structures of steel, reinforced concrete, precast and stressed concrete and such like materials. The presence of a structural engineer is essential in almost all large modern buildings to ensure that they will safely carry their weight and those of users at an economical cost.

The mechanical engineer is concerned with machines, machines to make things or to do tasks, or machines that produce power. Machines may be hand or human powered or they may contain their own power source or they may receive power from elsewhere. The mechanical engineer is concerned with controlling machines, processes, and systems, the control systems themselves being intricate combinations of electrical, hydraulic, pneumatic and mechanical elements.

Electrical engineering is based on a body of knowledge of interrelated magnetic and electrical phenomena.

The civil engineer's function as far as design and supervision is concerned is similar to that of the architect. However, they design works not only in their final forms but also the necessary temporary works. Thus, a civil engineer may be called on to design a coffer dam at the entrance of a proposed dry dock or temporary diversions of existing roads during construction of new roads, all as part of the contract.

The registration of engineers in Kenya is regulated by the Engineers Registration Act (Cap 530). The Act states the qualification for registration as being persons who:

- Are members of a recognised institution of engineers,
- Hold a degree, diploma or licence from a recognised institution and have at least three years of practical experience.

The Act also restricts the use of titles to persons registered under it. In addition to being registered, engineers may also belong to professional bodies which include the Institute of Engineers of Kenya (IEK) and the Architectural Association of Kenya (AAK).

2.2.2.3 Quantity Surveyors.

The quantity surveyor's function is highly specialised and has received judicial interpretation in the case of *Taylor v. Hall (1870)* as being of a person "whose business consists in taking out in details the measurements and quantities from plans prepared by

an architect for the purpose of enabling builders to calculate the amounts to which they should execute the plans."

An RICS report, 'Surveyors and their Future' (1970), quoted in Seeley (1987) states: "the Quantity Surveyor's role is to ensure that the resources of the construction industry are utilized to the best advantage of society by providing, *inter alia,* the financial management for projects and a cost consultancy service to the client and the designer during the whole construction process."

"Hudson's Building and Engineering Contracts" goes on to state that the quantity surveyor produces a document known as the Bill of Quantities from these measurements and quantities. "This is a detailed schedule of the quantities and items of work that is anticipated will be carried out. The contractors tender upon this document by inserting alongside each item a rate for each unit of measurement used by the quantity surveyor, together with the total grossed up amount to be charged for carrying out the whole quantity of that item shown in the bill."

The quantity surveyor also makes estimates of the costs of the works at the initial stage of the project, the preparation of schedules of rates and the preparation of detailed recommendations to the architect to the value of the work done and materials on site for the purpose of interim certificates.

The use of the terms "Quantity Surveyor" or "Quantity Surveying" is restricted by the provisions of Architects and Quantity Surveyors Act (Cap 525). The Act also sets out the qualifications for persons wishing to be registered as quantity surveyors as being limited to persons who:

- Have attained the age of twenty one years, and
- Have passed an examination or are members of an approved professional institution, and
- Have a minimum of one year's practical experience, and
- Have paid the registration fee.

Seeley (1987) gives the role of the quantity surveyor on a construction project as:

- Providing preliminary cost advice.
- Cost planning.
- Providing advice on contracting methods.
- Assisting in the tendering process.
- Advising on contractor selection.
- Valuation of construction work.

2.2.3 General duties of the Professionals

Cornes (1985) quotes "Hudson's Building and Engineering Contracts" as listing the duties of architects and engineers as follows:

- "To advice and consult with the employer as to any limitation which may exist as to the use of the land to be built on, either (*inter alia*) by planning legislation, restrictive covenants or the rights of adjoining owners or the public over the land, or by statues and by-laws affecting the works to be executed.
- To examine the site, sub-soil and surroundings or to make arrangements for such an examination, including advising on the need for employment of specialists, or consultants.
- To consult with and advise the employer as to the proposed work.
- To prepare sketch plans and a specification, having regard to all the conditions known to exist and submit them to the employer for approval, with estimate of the probable cost, if requested.
- To elaborate and if necessary, modify or amend the sketch plans, and then, if so instructed, to prepare drawings and a specification of the work to be carried out as the first step in the preparation of contract documents including advising on the need for employment of any specialists or consultants.
- To consult with and advice the employer as to the form of contract to be used and as to the necessity or otherwise of employing a quantity surveyor to prepare bills or to carry out the usual valuation services during the currency of the contract."

"Jackson and Powell on Professional Negligence" broadly classifies the duties owed by professionals as duties to clients (including contractual duties and duties independent of contract) and duties to third parties.

2.2.3.1 Duties to clients.

The main reason for the existence of concurrent liability lies in the different treatment given to contractual and tortious claims. A claim for the breach of contract may be barred by the operation of time, and the affected party will not be able to recover unless concurrent liability exists such that he can make a claim in tort.

a) Contractual duties

The foundation of the duties of the building professions will usually be the contract between the employer and themselves. This may take many forms but will normally be written. From the contract we can determine the nature and extent of the engagement undertaken. "Jackson and Powell on Professional Negligence" states that it may be necessary to look beyond the terms of the contract in order to ascertain the professional's precise duties, and this "arises from the fact that building a project involves a whole matrix of relationships where each party's individual responsibilities can only be evaluated in the light of the responsibilities assumed by the others."

Anyone who holds himself out as a specialist, whether or not he is suitably qualified, implies that he is competent to carry out the tasks he undertakes. It was said in the case of *Harmer v. Cornelius (1858)* that "the failure to afford the requisite skill which has expressly or impliedly been promised is a breach of legal duty."

A professional who does not possess the required skill may be held liable for any damage that he occasions to the employer. However, the employer must first show that the damage has been caused by breach of duty by the professional, and that the professional

was negligent. The test of negligence was set out in the case of *Blyth v. Birmingham Waterworks Company* as;

> "Negligence is the omission to do something which a reasonable man, guided upon those considerations which ordinarily regulate the conduct of human affairs would do, or do something which a reasonable and prudent man would not do."

The above test, however, poses difficulty in defining what a reasonable man is. The courts have developed a way of looking at a professional's duties. In *Bolam v. Friern Hospital Management Committee [1957]* (which was approved in *Whitehouse v. Jordan, 1981*) it was established that it is enough for a professional to exercise the ordinary skill of an ordinary competent man in order not to be held negligent.

Thus, in deciding whether or not there is negligence in a particular case, one needs to assess what an ordinary competent professional exercising the particular skill would do and to compare that with the actions of the person accused of negligence.

"Jackson and Powell on Professional Negligence" gives further duties owed to clients as part of their contract as including the need for an architect to inform his client as to the limits of his knowledge or the need for specialist advice. The architect will also act as the employer's agent and as such will need to serve him faithfully and exercise reasonable care, skill and diligence.

A designer may also be under a continuing obligation to review his design. In the absence of express instructions to investigate and report on defects, there will be no obligation for the professional man to report upon his own deficiencies.

b) Duties independent of contract (tort).

There are certain basic conditions that have to be proved in order to succeed in a claim for negligence in tort. These are the following:

- That the professional owed a legal duty of care, apart from contract, to the innocent party.
- That there was a breach of that duty.
- That damage to the innocent party resulted from the breach.

Claims against building professionals will usually be for economic loss. Only recently did it become accepted that concurrent liability could arise in tort and in contract. In the case of *Henderson V. Merrett Syndicates Limited [1995]*, the judge stated the following:

> "...the common law is not antipathetic to concurrent liability and that there is no sound for a basis for a rule which automatically restricts the claimant to either a tortious or a contractual remedy..."

2.2.3.2 Duties to third parties.

An architect, engineer or quantity surveyor may as have the following third parties. The following points may be said with regard to a professional's duty to third parties:

It is important to define the sort of loss which is being sought to be recovered. In *Sutherland Shire Council V. Heyman [1984-1985]*, the court held that:

> "...it is impermissible to postulate a duty of care to avoid one kind of damage –say, personal injury –and, finding the defendant guilty of failing to discharge that duty, to hold him liable for the damage actually suffered that is of another and independent kind –say, economic loss."

Building professionals owe a duty of care not to cause personal injury to those they could foresee might be injured if they are negligent: *Clay v. A.J.Crump & Sons Limited [1964]*. In addition to this, the professionals will also have to avoid causing physical damage to other property: *Northwest Water Authority v. Binnie & Partners [1989]*.

Since there is no contract between the building professional and the third party, it may be difficult to assess the scope of the professional's duty of care to third party. It is important to distinguish between economic loss claims, the designer will be liable. With regard to economic loss claims, the designer will be allowed to assume that the contractor is competent, unless the design is very faulty such that he will bear the loss.

2.2.3.3 Standard of care and skill.

"Jackson and Powell on Professional Negligence" states that the standard generally required of an architect in discharging his duties is the reasonable skill, care and diligence of an ordinary competent and skilled architect. This was expressed in *Voli V. Inglewood Shire Council [1963]*:

> "An architect...is not required to have an extraordinary degree of skill or the highest professional attainments. But he must bring to the task he undertakes the competence and skill that is usual among the architects practising their profession..."

The same standard may be expressed for engineers and quantity surveyors: *Eckersley v.Binnie & Partners [1988]*.

The standard of reasonable care and skill is established by comparison with the general practice of the profession. The knowledge possessed by an ordinary competent practitioner is used as the standard. However, when an unqualified person pretends to possess the skill, he will be judged by the standards of a competent person. Where a professional does not have the knowledge required by his client, he should advise him to seek specialist advice.

2.30 General Principles of the Law

Building professionals will normally be bound by a contract with their employer, which governs their relationship with each other. However they may incur liability to persons who are not party to their contract. This would arise under the law of tort. The basics of the law of contract and the law of tort are thus very important in the consideration of the duties and liabilities of a professional.

2.3.1 The Law of Contract

According to Cornes (1985 pp.14), "a contract comes into being when one person makes an offer, the offer is accepted and there is consideration for the promise made in the offer; or in other circumstances where, although no specific offer and acceptance can be identified, the court is satisfied that the parties have assumed contractual obligations to one another."

For the construction process, contracts need not be in writing to be enforceable. However, contracts that are made orally are easily capable of being misunderstood and misinterpreted.

The contractual agreement may be in the form of a formal memorandum of agreement which contains:

- Names and descriptions of the parties.
- Subject matter and conditions of the contract.
- Statement of the consideration.
- Signatures of the memorandum.

To avoid misunderstanding that may subsequently arise it is important to ensure that the contract is clear as to its meaning and intent.

The terms to a contract may either be express or implied. Express terms are those terms that the parties to the contract agreed upon either orally or in writing. They may either be Conditions (which are vital and go to the root of the contract) or Warranties (which are less important than conditions). Implied terms are terms which form a part of the contract but which were not mentioned at the onset of the contract. They may come about by the operation of law, by the course of dealing or by a court of law giving effect to the presumed intentions of the contract parties.

2.3.2 The Law of Tort

The law of tort is separate and distinct from the law of contract. The failure to perform an obligation under a contract results in a breach of contract. Liability in tort arises independently of contract.

Cornes defines a tort as any act or omission that infringes an obligation imposed by the law which gives the injured party the right to bring an action for damages. A building professional may thus be liable to make good the damage suffered by a person who is not a party to the contract with his employer. This is the basis for professional negligence.

A person may be held to be vicariously liable if he is liable for a tort which he did not commit. This may arise in the case where a professional delegates work to another party and retains the right to control the work and the way in which it is done.

The tort of negligence is primarily concerned with the breach of a duty to take care. The three essential elements for negligence are:

- Existence of a legal duty of care.
- Breach of that duty.
- Damage to the plaintiff as a result of the breach.

The existence of the duty of care is a question of law. In the case of *Donaghue v. Stevenson (1932)*, it was held that a manufacturer who sold products to the consumer with no possibility of intermediate examination owed a duty to the consumer to take reasonable care to prevent injury. In the case of *Dutton v. Bognor Regis UDC and Another (1958)*, it was held that the defendant owed a duty of care to the plaintiff, in spite of the fact that there was no contract between them, to ensure that the foundations of the house were adequate and were liable for the damage caused by the breach of duty to carry out a proper inspection.

To succeed in a claim of negligence, it must be shown that the injured party's damage arose directly from the other party's negligence. The damage must also be reasonably foreseeable.

A party may also be held liable for statements that were made negligently. In the case of *Hedley Byrne and Company Limited v. Heller and Partners Limited (1964)*, the court held that a professional man is liable for statements made negligently in circumstances where he knows that those statements are going to be acted on.

The tort of trespass may arise in the case where a building is designed in such a way that a part of it encroaches on another person's land. In such a case the tort is actionable *per se* (an action can be brought even when there is no damage).

2.40 Cases of Professional Liability

2.4.1 Introduction

Architects, engineers and quantity surveyors will generally be held liable for breach of the duties which they owed to other parties in their professional capacities. Bunni (1986) gives us a historical account of the liability of construction in the ancient land of Mesopotamia. Hammurabi's Code of 1760 B.C. had a section "On the Construction of Houses and of Ships" which contained provisions on the standard to be achieved in a building contract:

> "§ 229 If a builder builds a house for a man and does not make its construction firm and the house which he has built collapses and causes the death of the owner of the house that builder shall be put to death.
> § 230 If it causes the death of the son of the owner of the house they shall put to death a son of that builder."

Present day liability for breach of duty by a building professional may not have such severe penalties, but will arise from:

- "breach of the implied contractual duty to exercise reasonable care and skill;
- breach of any duty of care owed to the client independently of his contractual duties; and
- breach of any duty of care owed to a third party"

(Jackson and Powell on Professional Negligence, 1997).

The following are instances where professionals have been liable for breach of duty by the courts:

2.4.1.1 Architects

a) Non-delegation of tasks

Digby (1989) states that an architect may not delegate tasks entrusted to him by his client. In the case of *Moresk Cleaners Limited v. Hicks (1966)* it was held that the architects had no implied authority to employ subcontractors to design the works. The judge said:

> "... if a building owner entrusts the task of designing a building to an architect he is entitled to look to that architect to see that the building is properly designed."

However, due to the complexities of modern construction work, an architect may feel the need to pass specialist design work to those who are specialised in that particular field. Cornes (1985) identifies three situations in which a designer may delegate his duties:

- The designer engages a specialist designer directly. In case of any failure in design, the employer may sue the designer, who will then sue the specialist in contract.
- The employer engages the specialist designer directly. In this case, the employer has recourse against the specialist both in contract and in tort for any defects in the design.
- The designer makes the sub-contractor to design. The specialist thus becomes a nominated sub-contractor to a main contractor, who has a contract with the employer.

b) Knowledge of the relevant law

An architect is expected to have a good grasp of the law in so far as it is relevant to his profession. He need not have the detailed knowledge of a lawyer but, rather, such knowledge as is expected of the reasonably competent practitioner. In *B.L. Holdings Limited v. Robert J. Wood & Partners (1979)*, it was held that an architect should know enough of the law to enable him to know when to advise the employer on the need to get expert legal opinion.

c) Selection of contractors

In cases where it is part of the duties of the architect to select contractors to carry out the works for the employer, the architect must make reasonable inquiries as to the suitability and reliability of the contractors he recommends. In *Valerie Pratt v. George J. Hill Associates (1987)*, the architects were held liable for having recommended a builder as "very reliable" when in fact the opposite was true. This duty of care may also extend to the selection of nominated subcontractors.

c) Supervision of the works

"Jackson and Powell on Professional Negligence" states that an employer is entitled to expect his architect to administer and supervise the work so as to ensure, as far as is reasonably possible, that the quality of the work matches up to the standard contemplated. The judge in *Jameson v. Simon (1899)* stated the following:

> "It is contended that the architect cannot constantly be at the work, and this is obviously true. But he or someone representing him should undoubtedly see to the principal parts of the work before they are hid from view..."

It is however, appreciated that the architect cannot go into every matter in detail. Digby (1989) says that his duty of supervision may be satisfied by attending to important urgent matters. It is inevitable that some defects will escape his attention, but this will not necessarily imply negligence.

Cornes (1985) contends that it is possible for an employer who finds that he has defective construction work to go for both the contractor and the designer. This is because it is difficult to distinguish between defective workmanship, on the part of the contractor, and defective design (due to the architect). In addition to this, even when there is defective workmanship, the designer may still be liable for failing to inspect the works.

d) Design and Specification.

According to Digby (1989), the architect will be liable to his client if the design that he makes "is not in accordance with the art and science of architecture, or opposed to the sound principles of building or engineering."

The design is committed to paper in the form of drawings which show the positions of the components of the building and their dimensions. The drawings are accompanied by specifications which show the quality and type of materials to be used. The design process is continuous and will usually go on throughout the duration of the construction of the works.

Cornes (1985) indicates that a designer's duty to see that his design will work does not end when he has completed his design. In *Brickfield Properties v. Newton (1971)* it was said that:

> "The [designer] is under a continuing duty to check that his design will work in practice and to correct any errors which will emerge..."

The obligation of the architect to design satisfactory buildings ends only when the building has reached practical completion. Where an architect delegates specialist design tasks to specialists, he will generally not be responsible for any error that lies within the scope of that design.

e) Novel and risky designs.

Where an architect is operating at the frontiers of knowledge with no body of knowledge on which he can rely and he is engaged to adapt into his plans a new material or method of construction with which he has had no prior experience, the failure of this design will not constitute negligence.

In *Turner v. Garland & Christopher (1853)*, the judge stated:

> "...if out of the ordinary course you employ him [the architect] about a novel thing, about which he has had little experience, if it has not had the test of experience, failure may be consistent with skill..."

However, in the case of *Independent Broadcasting Authority v. EMI Electronics Limited & BICC Construction Limited (1980)*, the court was of the view that a designer should take added precautions in the case of a novel designer.

f) Issue of Certificates.

An architect, when issuing interim or final certificates, does not hold the position of arbitrator between the building owner and the contractor. As such, he must make a fair valuation and he will be liable to either party who may be affected by his over-valuation or under-valuation: *Sutcliffe v. Thackrah (1974)*.

In *Arenson v. Arenson (1977)*, it was held that an architect will only possess an arbitrator's immunity if:

- there is a dispute between the parties;
- the dispute has been given to him to pass judgement;
- the parties have had a chance to present their evidence;
- the parties have agreed to accept his decision.

g) Examination of the site.

An architect will generally need to examine a site either before or during the construction of a building. Cornes (1985) gives two reasons for this examination: firstly, to look for readily apparent things on site that will affect his design and, secondly, to assess the nature and load bearing capacity of the soil. In *Columbus Company v. Clowes (1903)*, an architect was held negligent in failing to examine a site by himself. The judge in *Eames London Estates v. North Herts District Council & Others (1980)* was of the opinion that

it is an architect's duty to advise the client on the need for a site investigation, and the possibility of a detailed one, if required.

h) Advice on the choice and terms of a building contract.

"Jackson and Powell on Professional Negligence" states that an architect's engagement will normally carry with it the obligation to consider the choice and the terms of the contract between the employer and the contractor. Thus, the professional may be required to advise the employer to reject a form of contract that may be disadvantageous to the employer, or to refuse to nominate a sub-contractor who may not be suitable.

i) Failure to administer the building contract well.

The architect will usually be requested to undertake a number of tasks to administer the main building contract, like handling variations or granting extensions of time. He should always be careful when assessing claims for extra payment or for extension of time so as to make sure that they are in line with the contract. It is advisable to seek the employer's authority before ordering work over and above what is agreed in the building contract. The architect in *Corfield v. Grant (1992)* was found guilty of breach of his duty to control a building project properly.

j) Inadequate investigation of defects.

If the designer does not point out the deficiencies in his design which subsequently lead to defects in the work, the affected party may wish to recover. The court, in the case of *Pullen v. Gutteridge (1993)*, came to the conclusion that had the designer exercised reasonable care in investigating the defects, they would have realised that the design was not up to the mark.

k) Fitness for the purpose.

Cornes (1985) says that where there is an obligation as to fitness for purpose, there is an absolute obligation which is independent of negligence. This implies that negligence does not have to be proven when there is an obligation as to fitness for purpose. Does an

architect's contract, then, imply a fitness for purpose term? The court in *Independent Broadcasting Authority v. EMI Electronics Limited & BICC Construction Limited (1980)* was of the following opinion:

> "In the circumstances it was not necessary to consider whether EMI had by their contract undertaken to supply a mast reasonably fit for the purpose for which they knew it was intended... but had that been argued, I would myself have been surprised if it had been concluded that they had not done so."

l) Negligent misstatement.

It was previously held that no claim could be founded on a statement made negligently by one party if there was no contractual relationship. However, since the case of *Hedley Byrne v. Heller & Partners Limited (1963)*, it has been concluded that where a statement is made and there is a special relationship between the parties, a legal duty of care arises, the breach of which may give rise to a claim for damages.

In *Independent Broadcasting Authority v. EMI Electronics & BICC Construction Limited (1980)*, it was held that a statement given by BICC was negligent and that the designer was liable to the employer.

m) Public and private rights.

The architect has a duty to find out from his employer whether there exists any restriction as to the use of the site, such as restrictive covenants or easements affecting the land. The designer should also take into account the rights to light of neighbours. The Canadian case of *Siegel v. Swarts (1943)* shows that the architect must comply with the building lines laid down by the local authorities.

n) Special skills.

The test for negligence to be applied to an architect who holds himself out as being in possession of special skills was set out in *Wimpey Construction UK Limited v. Poole*

(1984). It was concluded that in cases where a professional man holds himself out as having especially high skills and was employed on that basis, then he will be judged on the basis of an ordinary skilled person exercising and professing to have especially high professional skills.

2.4.1.2 Engineers.

a) Advice on safety.

In *Driver v. William Willett (Contractors) Limited (1969)*, it was held that the duty of the engineers was to inspect the construction site regularly and to advise the contractors as to safety issues regarding workers and observance of regulations. The engineers in this case were thus judged partly liable for the injuries of a building worker.

b) Instructions within reasonable time.

Digby (1989) says that even in cases where there are no express terms in the contract of employment, there will exist an implied term that the engineer will issue the requisite instructions and information to the contractor within a reasonable time. This is based on the decision in *Neodex Limited v. Borough Council of Swinton & Pendlebury (1958)*, where it was stated that:

> "It is clear... that to give business efficacy to the contract, details and instructions necessary for the execution of the works must be given by the engineer from time to time in the course of the contract and must be given in a reasonable time."

c) Duties to the employer's contract.

The duties of an engineer to the contractor were given judicial interpretation in the case of *Old School v. Gleeson (Construction) Limited (1976)* where the court held that it is the duty of the consulting engineer to produce a design that will achieve what the building owner wants, and he must ensure that the design is implemented. The engineer's duties of design and supervisions were clarified:

"...The responsibility of the consulting engineer is for the design of the engineering components of the works and his supervisory responsibility is to his client to ensure that the works are carried out in accordance with that design."

d) Design of the works.

According to Digby (1989), an engineer will be liable to his employer if he fails to exercise reasonable care and skill in the design of the works. In *Balcomb v. Wards Construction Limited (1981)*, the engineer was found liable to his employer for failing to adequately design the building's foundations. The case of *Holland Hannen & Cubitts (Northern) Limited v. Welsh Health Technical Services Organisation (1987)* shows that the responsibilities of a structural engineer concern safety and fitness for purposes but do not extend to appearances.

e) Fitness for purpose.

The engineers in the case of *Greaves & Company (Contractors) Limited v. Baynham Meikle & Partners (1975)* were held liable because they had guaranteed that they would design a warehouse fit for the purpose for which it was required but the building as designed did not actually turn out to be suitable for its intended use.

f) Inadequate examination of site.

"Jackson and Powell on Professional Negligence" says that the engineer, like the architect, will usually need to make an examination of the site before the construction work is done. In *Moneypenny v. Hartland (1824)*, an engineer who had failed to examine the nature of the soil which was to take the foundations of a huge bridge and had thus grossly underestimated the construction cost, was found to be negligent.

g) Inadequate specialist survey.

Specialist engineers may be asked to inspect and report upon buildings with regards to their particular field of specialisation. Thus, for instance, a structural engineer may be

called upon by an insurance company or a potential mortgagee to inspect a property before it is purchased. It was held in *Pfeiffer v. E & E Installations (1991)* that the specialist undertaking such an inspection will be judged by the standards of a reasonably competent specialist.

2.4.1.3 Quantity Surveyors.

a) Standard of care.

A quantity surveyor, in the performance of his professional duties, will be judged by the standards of a reasonably competent and experienced professional, regardless of his qualifications. In *Freeman v. Marshall & Company (1966)*, the plaintiff called upon Marshall, who had no formal training in and who had not passed any professional examination in surveying, to perform some work. He provided the wrong advice and the court judged him liable for professional negligence.

b) Valuation for issuing certificates.

Digby (1989) states that the function of a quantity surveyor is to measure the work or otherwise ascertain the amount due from his employer to a contract. In the issuance of interim or final certificates, the quantity surveyor – without a specific contracted provision to that effect – will not be acting as an arbitrator and as such will have a duty to make a fair valuation. In the case of *Tyrer v. District Auditor for Monmouthshire (1973)*, Tyrer was held negligent for having approved excessive quantities and prices in some contracts with a firm of contractors that employed him to check the quantities and prices.

c) Extent of professional knowledge.

The case of *Hooberman v. Salter Rex (1985)* had the issue of the extent of professional knowledge of the ventilation problems associated with flat roofs. The professional in question said that he should not be held negligent in failing to draw his client's attention to the problem since it was not required by statute. However, the court judged him to be

negligent because evidence pointed to the fact that professional journals at that time were discussing the very problem.

d) Extent of legal knowledge.

Digby (1989) appreciates that [quantity] surveyors are not expected to be legal experts but states that they are expected to possess a practical and up-to-date working knowledge of the correct legal principles that are to be applied in the course of their professional tasks.

e) Provision of a misleading estimate.

In "Jackson and Powell on Professional Negligence", it is held that a client will usually ask a building professional for an estimate of the cost of a building project before embarking on it. While it is appreciated that precision is not required in carrying out this task, reasonable care and skill must be exercised. In *Moneypenny v. Hartland (1826)*, the judge said:

> "...it is not a trifling deviation from an estimate that is to prevent a party recovering. But if a surveyor delivers an estimate, greatly below the sum at which a work can be done, and thereby induces a private person to undertake what he would not otherwise do, then I think he is not entitled to recover."

If the professional knows that his client has a financial limit for the project, he is required to warn the client if the limit is likely to exceed: *Flannagan v. Mate (1876).*

f) Errors in preparation of bills of quantities.

It is the primary duty of a quantity surveyor to prepare bills of quantities. However, in the event of an architect or engineer preparing the bills of quantities, he will be under the same requirement to exercise reasonable care and skill. The document is usually prepared referring to the rules set out in the Standard Method of Measurement for Building Works.

In *London School Board v. Northcroft, Son & Neighbour*, it was demonstrated that there may be no liability for negligence if there are only minor errors in the preparation of bills of quantities. However, where the errors are greater in number or in consequence, the likelihood of proving negligence is higher. As such, the quantity surveyor should make sure that the quantities are always reasonably sufficient.

2.50 Methods of Settling Professional Negligence Cases

2.5.1 Litigation

Jones(1994) claims that litigation is "arcane, long drawn-out, expensive, and not really the most efficient way of getting a dispute resolved, let alone achieving that nirvana sometimes called 'justice'."

The stages in civil litigation are listed by Jones as follows:

a. A demand letter is issued by the plaintiff giving details of the claim and its amount. A plaint, giving more details of the plaintiff's claim, is served within 14 days of the issue of the demand letter.
b. The defendant then has to prepare his defence.
c. Discovery then takes place, which is a process in which every document relevant to the case possessed by the other party has to be shown to the other.
d. Expert witnesses are appointed at any stage in the litigation process to provide light on technical and complex issues.
e. The trial occurs, following which a judgement is delivered on the case.

2.5.2 Arbitration

Jones (1994) says that arbitration developed as an alternative to litigation in the settlement of commercial disputes as a private, quick and informal method.

Bernstein in Jones (1994) states that "subject always to any restrictions imposed upon him by the arbitration agreement and by the requirements of natural justice, the arbitrator controls the procedure of the arbitration."

There are two types of arbitration proceedings: those involving documents only and those with an oral hearing. A documents only arbitration involves the submission of written statements by both parties, and the decision based on this. In the oral hearing, a combination of written documents, expert evidence and pleading by both parties is used.

This method is favoured for the settlement of disputes in the construction industry and many building contracts provide for the use of arbitration in the settlement of disputes between parties.

2.5.3 Mediation

According to Jones (1994), "mediation involves representatives from each side of a dispute sitting down with a neutral". This method is really very similar to arbitration, with the principal difference being that the parties to the dispute are not legally bound by the decision made by the mediator.

The mediator is usually a neutral party, acceptable to both sides of the dispute, who undertakes to bring the conflict to an amicable settlement. The merits of the method lie in its speed, informality and low cost.

2.5.4 Private Settlement

This method is similar to mediation. The parties to a dispute meet informally to iron out any differences that may exist between them. No external parties' intervention is required. It is therefore a cheap, quick and useful method, which would preserve business relationships if successfully used.

However, if this method is to succeed, the parties involved must be of high integrity such that they will stick to their agreement in spite of the fact that there is no way of enforcing it.

The method also helps to keep the dispute out of the public's attention, which may be desirable in some instances.

2.60 Limiting Professional Liability

There are several ways in which the consequences of professional liability may be limited. These include the following:

2.6.1 Practicing as a Limited Liability Company

Professionals may practice as a limited liability company and in so doing limit their liability to the amount unpaid on their shares in the company. The professionals will therefore be the shareholders who own and control the company. The company is a separate legal entity from the owners. Any claim from a creditor thus has to be sought from the company itself. If the company is unable to pay, the creditor may have it wound up.

"It follows that a limited liability company enables a business to be carried on in such a way that those carrying on the business, either by providing capital as shares, or in day to day management, do not incur personal liability for the debts of the company" Cornes(1985).

The Board of Registration of Architects and Quantity Surveyors (BORAQS) in its Practice Note 32 of 28th July 1995 spells out the conditions under which registered persons may practice as limited liability companies as the following:

a. All directors of the company will be registered persons.
b. Registered persons will seek approval from the board and will give it details of the directors.
c. Registered persons will give the Board any other information it needs.
d. Once the company is registered with the Registrar General, it will also be registered with the Board.
e. The company shall pay the prescribed registration fee.
f. The company shall pay the annual registration fee.
g. The persons forming the company will be subject to the provisions of the Architects and Quantity Surveyors Act (Cap 525).

2.6.2 Using Professional Indemnity Insurance

Bunni (1986) recommends insurance as "perhaps the ultimate option to which a design professional may resort to protect himself, his firm and his client against risks which eventuate as a result of errors, omissions or breaches of professional duty." Professional liability is covered by a policy known as a Professional Indemnity policy.

Madge (1994) states that the object of the policy is to protect the insured against the legal liability for claims made against him by third parties for breach of professional duty. He gives the three stages to a professional liability claim as:

a. Commission of an act or an omission.
b. Injury, loss or damage to a third party.
c. A claim against the insured.

Professional indemnity insurance policies handle the third stage of this process.

2.6.3 Carrying Out Work Carefully

One of the ways of avoiding professional liability is to do professional work as carefully as one possibly can. Mururu (1983) states that: "it is necessary as a professional to be meticulous and thorough...."

Cornes (1985) says that there is scope for a professional to manage his business in such a way that the possibility of a claim is minimised and if it occurs, the effect on the firm is minimised. This can be achieved by, for example, checking office procedure to ensure that no claim will arise and by involving the client in risky decisions.

2.6.4 Setting Aside Some Money (Self-insurance)

Bunni (1986) suggests that "one option available to the professional in providing protection against financial disaster is to maintain a programme of self-insurance by setting aside a sum of money every year in a reserve account for use in the case of a successful claim against him."

This method requires strict financial discipline on the professional's part such that he will always set aside some amount regardless of circumstances, and he will not use those reserves for any other purpose. The method is also expensive because the sums set aside are not deductible as expenses when it comes to computing tax liabilities.

2.6.5 Using Exclusion Clauses in Contracts

Some professions in the construction industry are forbidden to limit their liability in this way. Exclusion clauses affect only the parties to the contract, and not third parties. Cornes (1985) says that for exclusion clauses to be effective, they must be carefully drafted. The words used must not be too general so as to exclude a particular or specific

liability. When excluding liability for negligence, the wording should portray that the loss that may arise falls within the meaning of the clause.

CHAPTER THREE

PROFESSIONAL INDEMNITY INSURANCE AS A MEANS OF DEALING WITH PROFESSIONAL NEGLIGENCE

3.10 Introduction

Having identified professional indemnity insurance as one of the methods by which professional liability may be limited and "perhaps the ultimate solution to which a design professional may resort to protect himself" (Bunni, 1986), this chapter considers it in greater depth.

The chapter first defines what insurance is, gives its functions, limitations and general principles, sets out the insurance policies commonly available in the construction industry and finally considers the provisions of professional indemnity insurance policies.

3.20 Risk and Insurance

Hansell (1989 pp.1) defines insurance as "a social device providing financial compensation for the effects of misfortune, the payments being made from the accumulated contributions of all parties participating in the scheme ... it may be seen as a kind of fund, into which all who are insured will pay an assessed contribution (called a premium). In return, those insured will have the right to call on the fund for any appropriate payment should the insured event occur."

Bunni (1986) says that insurance is the equitable financial contribution of many for the benefit of an individual who has suffered loss.

Vaughan and Vaughan (1999) point out that the two fundamental aspects of insurance are the removal of risk from an individual and shifting it to a group, and the sharing of losses by that group. They further go on to define insurance from the viewpoint of an individual, and from the viewpoint of society, as follows:

> "From an individual point of view, insurance is an economic device whereby the individual substitutes a small certain cost (the premium) for a large uncertain financial loss (the contingency insured against) that would exist if it were not for the insurance."

> "From the social point of view, insurance is an economic device for reducing and eliminating risk through the process of combining a sufficient number of homogeneous exposures into a group to make the losses predictable for the group as a whole."

The above definitions show that insurance is a way of addressing the adverse effects of risk. Bunni (1986) states that insurance may very well be "the ultimate option to which a design professional may resort to protect himself, his firm and his client against risks which eventuate as a result of errors, omissions or breaches of professional duty."

Professionals in the construction industry may use insurance as a method of combating the adverse effects of the professional negligence risk to which they are exposed, by using a specially designed policy known as a Professional Indemnity Insurance Policy.

3.2.1 Risk and Risk Management

Vaughan and Vaughan (1999) define risk as a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for.

British Standard No. 4778, 1979, quoted by Bunni (1986) gives another definition of risk as "the combined effect of the probability of occurrence of an undesirable event, and the magnitude of the event."

Professional negligence risk arises when in the normal course of carrying out his duties a professional commits an act, error or omission which leads to legal liability as a result, and he may be required to pay a sum of money to the injured party thereafter.

Risk may be differentiated from perils and hazards. A peril is what occasions a loss, for instance a fire that destroys a building may be regarded as a peril. Vaughan and Vaughan (1999) define a hazard as "... a condition that may create or increase the chance of a loss arising from a given peril." They distinguish between physical hazards, moral hazards and morale hazards.

Where risk exists, the individuals affected will face uncertainty. This refers to a state of mind in which doubt prevails because of the absence of certain knowledge about what will occur in the future. Thus a professional may not be sure as to whether any of his actions may give rise to claims for processional negligence.

Vaughan and Vaughan (1999) give the following classification or risks:

a) Financial and Non-financial risks.

Financial risks are those situations where a deviation from the desired outcome would cause financial loss. If the deviation has no financial consequences, it may be termed as a non-financial risk. Professional negligence risks may be said to be financial since they may result in loss of money by the consultant.

b) Static and Dynamic risks.

Dynamic risks are those risks that arise due to variations in factors that affect the national economy, like changes in the levels of prices. Static risks occur regardless of changes in the economy. Professional negligence risks may be said to be static in this respect.

c) Fundamental and Particular risks.

Fundamental risks are those which are felt by large groups in society, as opposed to individuals. Particular risks involve losses to individuals and are restricted as such. The risk of professional negligence is thus a particular risk.

d) Pure and Speculative risks.

A speculative risk offers both the possibility of a gain or a loss. A pure risk, on the other hand, has no chance for gain, but only for loss. The risk of professional negligence is a pure risk and as such may be insured against.

3.2.2 Methods of Handling Risk

Risk is part and parcel of everyday life and no one can totally escape from it. The issue is how to deal with risk, and in this case, how to deal with the risk of professional negligence. This is the scope of risk management.

Risk management is given a definition in British Standard No. 4778 as: "the process whereby decisions are made to accept a known risk or hazard or to eliminate or mitigate it."

Vaughan and Vaughan (1999) identify the following ways of handling risk:

a) Risk may be avoided.

This occurs when the individuals totally refuses to accept the risk. It may be achieved by not taking part in the activity which is risky. Thus a professional would avoid risk by not engaging in his professional duties. This seems to be an unsatisfactory way of dealing with risk.

b) Risk may be retained.

In this method of dealing with risk, the person involved does not do anything to avoid the risk, reduce it or transfer it to another party. A professional may retain the risk of professional negligence by simply carrying out his duties with no positive action to deal with the risk.

c) Risk may be transferred.

Risk is transferred when the person affected by it passes it on to another individual who is more willing to bear the risk.

d) Risk may be shared.

This happens when a number of individuals come up with a way of sharing the losses amongst themselves. The risk of professional negligence may be shared by the individual professionals coming together to form a partnership or a limited liability company.

e) Risk may be reduced.

This may be achieved in two ways. The first is loss prevention and control which involves reducing the probability that the loss will occur; by for example, ensuring that the work done by a professional or other members of his firm meets certain minimum standards. The second way is the use of the laws of large numbers (insurance). In this case, the firm may opt to take out a policy of professional indemnity.

3.2.3 The Insurance Contract

A contract is a legally binding agreement between two or more parties. Colinvaux's Law of Insurance (1990) states that contracts of insurance "are aleatory contracts 'depending on an uncertain event or contingency as to both profit or loss'; for financial or other consideration the insurer agrees to pay or otherwise benefit the assured on the happening of a specified event or contingency which is outside the control of the insurer."

The contract of insurance received judicial definition in *Prudential Insurance v. IRC* as follows:

> "It must be a contract whereby for some consideration, usually but not necessarily in periodical payments called premiums, you secure to yourself some benefits, usually but not necessarily the payment of a sum of money, upon the happening of some event. Then the next thing that is necessary is that the event should be one which involves some amount of uncertainty. There must be either uncertainty whether the event will ever happen or not, or if the event is one which must

happen at some time, there must be uncertainty as to the time at which it will happen."

Hansell (1989) gives six essential elements of any contract, which are the following:

a) Intention to create legal relations. For a contract to be binding, the parties to it should have the wish for it to have legal consequences. In insurance contracts, both parties are aware of their rights and obligations and of the legal consequences of the breach of such duties.

b) Unrevoked offer. In insurance, the offer will usually take the form of a proposal form which is issued by the insurance company and completed by the prospective insured, and this contains the details relevant to the contract. The filled out proposal form constitutes an offer which may either be accepted or rejected by the insurer.

c) Unqualified acceptance. For a binding contract to arise, the offer made by the potential insured must be accepted by the insurance company in exactly the same terms, with no modifications. Any modification to the said terms effectively implies a rejection of the offer and the making of a counter-offer.

d) Consideration. The two parties to an insurance contract provide some consideration. The premium paid by the insured constitutes his consideration. The consideration of the insurance company is the undertaking to compensate the insured in the event of some specified occurrences taking place.

e) Legality. For a contract to be binding, it is necessary for it to be in accordance with the laws of the country. It would not be possible, for example, to insure the activities of a person smuggling goods into the country.

f) Capacity of the parties to contract. A contract will only be binding on the parties involved if they both have the legal capacity to enter into such an agreement. An insurance company may therefore not enter into a contract to grant insurance to a professional who is of unsound mind.

3.30 Functions and Limitations of Insurance

3.3.1 Functions of Insurance

Eaglestone (1979) is of the opinion that insurance is taken out in the construction industry for the following reasons:

a) It is a mandatory requirement of the law, like motor vehicle insurance under the Traffic Act.
b) It is required by the contract, for example the Standard Form of Building Contract by the Joint Building Council.
c) It is common sense to do so.

Hansell (1989) gives the main function of insurance as distributing the financial loss suffered by a member of the group among the whole insuring group. This is achieved by paying out money to those who have suffered loss from a common fund established by the contributions of all the members.

Other functions of insurance listed by Hansell include the following:

a) Investment by insurance companies. The amounts collected by insurers from the public may be invested in various projects in the country, and thus improve the overall development of the national economy.

b) Establishment of confidence. The use of insurance enables many activities to take place, which would not otherwise have begun, by providing cover against financial loss of the events insured against take place.

c) Reduction of losses. Insurance companies may help in the reduction of losses by companies by making certain recommendations when offering policies. One of the principal ways of doing this is rating – assessment of premiums payable. By making firms with poor practices pay more on premiums, the insurance companies can force the insured to make improvements in their work, which may subsequently lead to fewer losses.

3.3.2 Limitations on the Scope of Insurance

Hansell (1989) gives a number of conditions which must be fulfilled before a risk can be insured. These are the following:

a) There must be insurable interest. This is one of the basic foundations of any insurance and it simply means that the person who wishes to take out the insurance should legally be entitled to insure the article or event. A professional, therefore, cannot take out a professional indemnity insurance policy for the firm of a friend of his.

b) Insurance is limited to financial value only. The insurance policy will only compensate the insured for monetary loss. A professional involved in a professional negligence claim may additionally suffer from shame and loss of clients which the insurance will not cover.

c) There must be a large number of similar risks. The successful operation of insurance requires that there be a large number of risks of similar nature.

d) It must be possible to calculate the risk of the loss occurring. The calculation of the risk of loss is done by examining data collected regarding past losses and estimating the probability of the risk occurring again using statistics.

e) The loss insured against should not be one of a catastrophic nature. Where the loss is of such magnitude as to be catastrophic, the funds collected by the insurance companies may not be enough for compensation. Such losses are usually not subject to insurance.

f) Losses must be reasonably unexpected. If the loss will definitely occur in the future, it is not likely to be covered by insurance. The principles of insurance rely on the fact that only a few claims will be made to be compensated by the contributions of the group.

g) The loss must be accidental. If the loss arises from a wilful act of the insured then that loss cannot be insured against.

3.40 General Principles of Insurance

Hansell (1989) discusses the general principles behind the operation of insurance. Among these included the ones listed as follows:

3.4.1 Insurable Interest

A person who wishes to take out an insurance policy must be legally entitled to insure the article or event. Hansell (1989) defines insurable interest as the financial involvement which is able to be insured. The essentials of insurable interest are the existence of something (life, property, potential liability, financial interest) which is the subject matter of the insurance, and a legally recognised relationship between the insured and that subject matter.

Digby (1989) points out that the subject matter in professional negligence insurance is the legal costs and damages awarded against the professional to the injured party. This is primarily a financial interest and the professional will only be able to recover the loss arising from his negligence to the extent of this interest.

3.4.2 Utmost Good Faith

Insurance contracts are founded on the mutual trust and confidence between the insured and the insurer. They are said to be uberrima fides (utmost good faith) because, as Hansell (1989 pp.147) puts it, "each party to a proposed contract is legally obliged to reveal to the other all information which would influence the other's decision to enter the contract, whether such information is requested or not. It... requires each party to tell the other 'the truth, the whole truth and nothing but the truth' about the proposed contract."

The parties to the insurance contract must reveal all material facts to each other. A material fact is one which would influence the decision of a prudent insurer when assessing a risk. However, certain material facts need not be revealed, for example, those which improve the risk, those that the insurer is presumed to know, those that can be discovered from the information supplied.

The duty of utmost good faith may be breached by failure to reveal a material fact, either wilfully or accidentally, or by supplying misleading information on a material fact, either unintentionally or fraudulently. The breach of utmost good faith may result in the aggrieved party considering the contract as void, or suing for damages, or in simply ignoring the breach.

3.4.3 Indemnity

This is a basic concept of insurance which states that the insured will be put back to the same financial position as he was before the loss occurred. He should, however, not gain

from the misfortune. Indemnity was given a legal explanation in the case of *Castellain v. Preston* in the following words:

> "The very foundation, in my opinion, of every rule which has been applied to insurance law is this, namely, that the contract of insurance... is a contract of indemnity and of indemnity only."

Digby (1989) states that in the case of professional indemnity insurance, the aim is to cover the loss incurred by the insured professional by reason of a judgement made against him for damages arising from the negligent performance of his duties. The policy will usually contain a limit upon each claim, or as to the amount recoverable in one year.

3.4.4 Subrogation

Subrogation refers to the exercise of rights or remedies possessed by another against third parties. This implies that after the insurance company has indemnified the insured in respect of a loss, it becomes entitled to take the position of the insured. The insured thus cannot seek additional compensation from third parties in respect of the loss.

3.4.5 Contribution

This doctrine is also known as double insurance and it enables an insurance company to call on other insurers who are liable to the same insured to assist in indemnifying the loss. It arises because a person in free to take out more than one insurance policy in respect of the same risk. The insured is thus only compensated to the extent of the insurable interest, and not more since this would go against the principle of indemnity.

For contribution to apply, the insurances must cover the same subject matter, they must cover the same risk, they must be for the same benefit of the same insured, and each of them must be valid at the relevant time.

3.50 Insurance Policies used in the Construction Industry

Bunni (1986) is of the view that the need for construction insurance arose after the Second World War, whereby there were significant reconstruction programmes in the affected areas which were characterised by technological advances in building materials and methods of construction.

Eaglestone (1979) discusses the various classes of insurance policies that are used in the construction industry. These include:

3.5.1 Employers' Liability Insurance

This policy covers the legal liability of an employer to those people who are under a contract of service or apprenticeship with him. It deals with any bodily injury or disease that may arise as a result of carrying out the duties of employment. The bodily injury or disease must be sustained during the period of insurance in order to be compensated for.

3.5.2 Public Liability Insurance

This policy provides cover against legal liability that may arise due to claims by third parties for bodily injury or property damage. The bodily injury or property damage should usually be accidental. Eaglestone (1979) defines accidental injury or property damage as that which "happens by chance, unexpectedly or without design and is not dependent upon one specific event".

3.5.3 Policy for the Joint Building Council's Standard Form of Contract: Clause 12(3)

This policy is only used if only the contract documents so specify and the provisions of clause 12(3) are as follows:

> "The contractor shall maintain ...insurances for such amounts of indemnity as may be specified by way of provisional sum items... in respect of any expenses,

liability, loss, claim or proceedings which the employer may incur... by reason of damage to any property other than the Works caused by collapse, subsidence, vibration, weakening or removal of support or lowering of ground water..."

The clause also provides exceptions to the above provisions. The policy is taken out in the joint names of the contractor and the employer, though it only protects the employer. The limit of the indemnity could either be for one event or for one period of insurance.

3.5.4 Motor Vehicle Insurance

This type of policy is compulsory and is set out by the Traffic Act. There are four policies available for motor vehicles:

- Comprehensive Policy: this normally has two sections. Section One covers loss caused by fire, theft or other accidental means. Section Two covers the death of or bodily injury to third parties during the course of using the vehicle. It is the widest policy.
- Third Party, Fire and Theft Policy: this is similar to the comprehensive policy with only the other accidental means of section one being left out of the cover.
- Third Party Only Policy: this covers the death of or bodily injury to third parties during the use of the vehicle only.
- Traffic Act Only Policy: this provides cover against liability to third parties arising out of the use of the vehicle on the road and causing the death of or bodily injury to third parties.

3.5.5 Insurance of the Works

The two main policies governing the works are the Contractors' All Risks policy and the Fire and Special Perils policy.

The Contractors' All Risks policy indemnifies the insured for the loss, damage or destruction of any property stated in the Schedule, for which the insured is responsible.

The following items are normally covered: permanent and temporary works, tools, plant, equipment and temporary buildings.

The Fire and Special Perils policy covers loss arising from fire, lightning and certain limited explosion risks. However, the policy may be extended to cover the additional perils mentioned in clauses 13.0 and 14.0 of the Joint Building Council's Standard Form of Contract for Building Works.

3.5.6 Insurance of Buildings and Contents of Premises

Cover for the plant and equipment of a contractor may be given by a Contractors' All Risks policy, or it may be under a Fire and Special Perils policy, or it may be part of a Comprehensive Commercial Vehicle Policy.

3.5.7 Engineering Insurance

There are basically 3 types of plant which are covered under this policy: boilers and pressure plant (against explosion), mechanical and electrical plant (for breakdown), lifting machinery (for breakdown and accidental damage).

3.5.8 Goods in Transit Insurance

This policy may be taken out by a contractor to cover goods as he transports them from one site to another. It may also be covered by the Contractors' All Risks basis.

3.5.9 Insurance of Money

Cover is usually provided against loss of money in transit, from a safe or strong room, from the contractors' premises either during or outside of business hours. It is usually on an "all risks" basis.

3.5.10 Fidelity Guarantee Insurance

This policy compensates the insured for the loss of money caused by the dishonesty of an employee while in the course of his employment. The cover may be individual, collective or blanket.

3.5.11 Personal Accident Insurance

The aim of this policy is to provide an income to the insured during the period of disablement, or to pay a lump sum to the insured or his beneficiaries in the event of death, permanent total disablement or loss of limbs.

3.5.12 Professional Indemnity Insurance

Eaglestone (1979) states that this policy protects the insured against his legal liability to pay damages to third parties who may have sustained some injury, loss or damage due to the negligence of the insured or his staff in the professional conduct of the business.

3.60 Professional Indemnity Insurance Policies

Roffey (1983 pp.29) says that "a professional indemnity insurance policy indemnifies the insured up to the limit stated in the schedule against all sums which the insured shall become legally liable to pay arising from claims made against the insured during the period of insurance as a direct result of any negligent act, error or omission committed or alleged to have been committed by the insured in the conduct of the business".

Bunni (1986) points out that such policies may be taken out by the professional as a way of protecting himself, his firm and his client against risks which evaluate as a result of errors, omissions or breaches of professional who is held liable for professional negligence would be able to provide an indemnity to the aggrieved party using his own resources. It is for this reason that such a professional may opt for a professional indemnity insurance policy.

There does not yet exist a standard professional indemnity policy, and the policies offered by insurance companies with regard to professional indemnity will vary.

There are two important documents which form part of the professional indemnity policy: the proposal form and the policy form.

3.6.1 Proposal Forms

Proposal forms are defined by *Hansell* (1989) as consisting of a series of questions drawn up by the insurers, requesting certain information which will enable them to assess the proposed risk. The prospective insured will therefore be required to complete a proposal form issued by the insurance company.

Digby (1989) gives a list of questions which will generally make up a proposal form for a professional indemnity policy. The insurers will usually be looking for the following information from the prospective insured:

- Names and qualifications of the partners of the firm.
- Title of the practice.
- Profession of the practice.
- Date when the practice was established.
- Addresses of all the offices of the firm.
- Whether any employee has left the firm recently due to errors committed.
- Whether there have been any claims against he firm for professional negligence.
- Whether the partners hold or have held a professional indemnity policy.
- Whether a proposal for professional indemnity insurance has been turned down by another insurer.
- The amount of indemnity required.
- Any extensions required by the proposer.
- The numbers of partners, qualified staff and unqualified staff in the firm.

- The gross income of the firm over a period of time, say five years.

3.6.2 Policy forms

These form written evidence of the contracts of insurance. Hansell (1989) defines a policy as a document produced by the insurers setting out the terms of the contract.

The basic elements of a policy are set out by Bunni (1986) as the following:

- Insuring clause.
- Schedule.
- Exceptions.
- Conditions.
- Memoranda, covering extensions to the basic cover.
- Signature clause.

3.6.2.1 Insuring clause.

The insuring clause (also known as the operative clause) according to Bunni (1986) sets out the basis on which the insurer will indemnify the insured- it specifies the extent of the insurance. It is usually preceded by a recital clause.

The recital clause is an introduction to the contract and Hansell (1989) also terms it as preamble. This clause will usually contain an identification of the parties to the contract (the premium). Digby (1989) gives the following example of a recital clause:

> "Whereas the person or partnership named in the schedule have made to the insurer a written proposal containing particulars and statements which it is hereby agreed shall be the basis of this contract and are to be considered incorporated herein and in consideration of the payment of the premium stated within the said schedule."

The operative clause of the policy sets out the scope of the insurance by giving the circumstances in which the insurance is operative. Digby (1989) gives the following example of an operative clause:

> "Now this policy witnesseth that the insurer hereby agrees to indemnify the insured to the limits specified in the schedule hereto in respect of any sum which the insured may become legally liable to pay as damages for breach of professional duty as a result of any claim(s) made upon the insured during the period of insurance arising out of the conduct of the practise or business described in the schedule as a direct result of any negligent act,' error or omission therein committed by the insured or their predecessors in the practice of business whenever the same was or alleged to have been committed..."

Digby (1989) goes on further to split up the above operative clause into its components and to analyse them in the following manner:

'... *the insurer hereby agrees to indemnify the insured*... '

These words emphasize the fact that the policy is one of indemnity –that the insurance company will compensate the insured for any financial loss arising from a risk insured against.

'... *to the limits specified in the schedule hereto*... '

This points out the scope of the policy. The limits in the schedule may be in the form of an aggregate sum for all claims in a year, or in the form of a ceiling amount for each claim made.

'... *in respect of any sum or sums which the insured may become legally liable to pay*... '

These words imply that the insured will not be able to make a claim of indemnity from the insurance company unless he has been found liable under the law for acts, errors or omissions of his.

'... as damages for breach of professional duty... '

Damages refer to the compensation to be made by the insured to the aggrieved party and may include the legal costs of the claimant. This arises from professional negligence.

'... as a result of any claim made upon the insured during the period of insurance..."

This statement means that the claim against the insured should arise in the one-year period covered by the policy for it to be acted upon.

'... arising out of the conduct of the practice or business described in the schedule... '

The schedule attached to the policy will specify what professional activities the firm can carry out, and only these will be covered by the policy.

'...as a direct result of any negligent act, error or o mission therein... '

These words emphasize that the policy will only cover those losses foe which the insured is legally liable as a consequence of carrying out his professional duty.

'...committed by the insured or their predecessors in the practice or business whenever the same was or alleged to have been committed..."

All members of the firm, even retired ones, are protected by the policy against any claims that may arise during the currency of the policy, regardless of when the negligent action was committed.

The operative clause may also contain a provision to the effect that the insurer will cover the legal costs and expenses of the insured. A part of the operative clause may also define the excess- that the insured will bear the first proportion of each and every claim made.

3.6.2.2 The schedule.

Hansell (1989) defines the schedule as that part of the policy which contains all particulars which make the policy different from any other class of business. The items usually found in a schedule to an insurance policy are given by Bunni (1986) as:

• The insured.

This is the person named in the policy who will be covered by the insurance. Details of his name and address will be given. The term will include employees performing duties on behalf of the named person.

• The insured's professional activity.

This is a very important part of the policy because it will determine whether or not the insurer will accept to cover the insured and also the premium to be paid.

• Limit of indemnity.

This part of the schedule will state the extent to which the insurer will compensate the insurer in the event of a loss arising from the risks insured against.

• Period of insurance.

This will state when the insurance cover will start and end, which will usually be one year. The indemnity will only cover claims made during this duration.

• Premium and excess.

The premium will usually be calculated by applying a certain percentage to the protected fees for the year. The excess is the first amount of each and every claim to be borne by the insured.

3.6.2.3 Exceptions.

These define the scope of the policy by outlining what is not covered by the indemnity. Digby (1989) details some of these exclusions:

• The excess.

• Libel or slander.

• Liability from bodily injury, sickness, disease or death of a person employed by the insured.

• Any claim for which the insured will be indemnified under another policy.

- Any claim arising out of a fraudulent, criminal or illegal act.
- Insolvency of the insured.
- Loss arising from war, revolution, rebellion or military power.

3.6.2.4 Conditions.

Every insurance policy will have a number of conditions which regulate the cover of the insurance. Hansell (1989) says that the basic intentions of conditions are: to remind the insured of common law provisions. To restrict the cover provided, to grant privileges and to outline certain procedures.

Digby (1989) gives the following conditions as the ones common to a professional indemnity insurance policy:

- The insured giving immediate notice to the insurer in writing of any claims made against them.
- The insured should become aware of any event which may give rise to a claim; he should immediately give notice to the insurer of it in writing.
- The insurer shall not make any admission of liability without the written consent of the insurer.
- The insurer will take over the control and conduct of any claim or proceeding.
- An arbitrator appointed by the insurer and the insured will settle any differences that may arise out of the policy.
- The policy may be cancelled by either party after giving a thirty days notice to the other party.
- If the insured dies, the insurer will indemnify his personal representative in the event of loss.
- The insured will let the insurer know the amount received in respect of fees one month before the policy expires, and this will be used to adjust the amount of premium.

3.6.2.5 Memoranda.

This part of the policy will contain extensions to the basic cover provided by the policy. Bunni (1986) gives the extensions as including the following:

- Cover for the previous business activities of the partners which may be requested when changing insurance companies or when using this insurance for the first time.
- Cover for the actions of former partners of the firm or for partners who have retired.
- Cover for any dishonest, malicious or illegal acts of any employee of the insured.
- Cover against liability that may arise as a result of loss, damage or destruction of documents.
- Cover for liability at law for damages, costs and expenses connected for libel and slander.
- Cover for recovery of legal costs incurred in the process of claiming professional fees.

3.6.2.6 Signature clause.

This is also called the "attestation clause" by Hansell (1989) and in it the insurer gives formal verification to his undertaking. For an insurance to be effective, the signature of an authorised person must be appended to show the agreement of he insurer as to the conditions of the contract spelt out in the policy.

3.6.3 Professional indemnity insurance group schemes

Although professional indemnity insurance is normally taken out by individual professionals, a number of firms in the same profession may form a group and seek professional indemnity insurance under one consolidated policy. Bunni (1986) gives some advantages of such an arrangement:

a) Constant availability of cover. A group scheme will ensure tat there is insurance cover available for all members of the group even in situations, like high inflation, where the answer would likely to pull out of providing cover for individuals.

b) Bargaining power. Since the members of the group seeking insurance act as a unit, they will be able to obtain better terms of the policy if they acted individually.

CHAPTER FOUR

DATA COLLECTION, PRESENTATION AND ANALYSIS

4.10 Data Collection

4.1.1 Introduction

The data for research was obtained using questionnaires administered to professionals in the construction industry (architects, engineers and quantity surveyors) and to insurance companies offering professional indemnity insurance policies. The data was supplemented, wherever possible, by oral interviews with the concerned parties.

4.1.2 Response to the Questionnaires

A sample of 60 professional firms and 13 insurance companies was selected; using stratified random sampling and simple random sampling respectively, for the purposes of the research. The response to these questionnaires is shown in the table below:

TABLE 4.1: RESPONSE FROM PROFESSIONALS.

PARTICIPANTS	TARGETTED NO.	RESPONSE NO.	% RESPONSE
1. Architects.	20	18	90
2. Engineers.	20	12	60
3. Quantity surveyors.	20	13	65
TOTAL	60	43	72

SOURCE: Own Field Survey 2002

The response rate for the professionals is 72% which, Gray (1983) in Wangai (2001) says is adequate and forms a strong basis for data analysis and the drawing of conclusions.

The response to the questionnaires administered to the insurance companies is shown in the table below:

TABLE 4.2: RESPONSE FROM INSURANCE COMPANIES.

PARTICIPANTS	SELECTED NO	TARGET NO.	RESPONSE NO.	% RESPONSE
Insurance cos.	13	5	5	100

SOURCE: Own Field Survey 2002

Of the sample of 13 insurance companies selected, only 5 offered professional indemnity insurance policies. It was to these that questionnaires were given because the structure of the questionnaires was such that they were to be filled by companies offering professional indemnity policies. All the 5 questionnaires were received back, giving a response rate adequate for analysis.

4.1.3 Problems Encountered During Data Collection

- Some of the professionals, and especially quantity surveyors, were at first reluctant to accept the questionnaires claiming that too many students had already presented them with questionnaires, which they did not have time to fill.
- Some of the professionals delayed in filling the questionnaires, understandably due to the pressure of their professional duties, and the time limit did not allow the researcher to be able to collect and use their data.
- Some of the professionals working outside the city centre did not have clear physical addresses and were therefore difficult to locate.

In spite of the above problems, most of the professionals and insurance companies dealt with were extremely helpful and took time out of their busy schedules to assist in this study. The researcher would like to convey heartfelt gratitude to all who participated in this research.

4.20 Data Presentation and Analysis

The data that was collected is presented in the form of tables, charts and graphs showing percentages and frequencies, with narratives to describe the results. The data is analysed according to the objectives set out in Chapter One.

4.2.1 Usefulness of Professional Indemnity Insurance Policies

The professionals were asked to comment on situations in which the consultants in the construction industry in various parts of the Commonwealth have been held to be professionally negligent by courts of law. The aim was to determine whether professionals in Kenya would be liable in similar circumstances. Each group of professionals was asked a different set of questions, since their duties in construction vary.

TABLE 4.3: LIABILITY FOR PROFESSIONAL NEGLIGENCE (ARCHITECTS)

SCENARIO Should the architect be liable for:	NO. IN AGREEMENT	% IN AGREEMENT
a. Delegation of duties.	15	83.3
b. Lack of legal knowledge.	16	88.9
c. Selecting incompetent contractors.	13	72.2
d. Inadequate supervision of the works.	15	83.3
e. Poor design and specification.	13	72.2
f. Wrong valuation of certificates.	13	72.2
g. Failure to examine site.	14	77.8
h. Poor contract administration.	13	72.2
i. Poor investigation of defects.	14	77.8
j. Building not fit for intended use.	9	50.0
k. Negligent misstatement.	12	66.7

SOURCE: Own Field Survey 2002

The list of scenarios in which an architect may be held liable for professional negligence is by no means exhaustive. However, the findings show that the professionals are aware

that the risk of professional negligence is very real and this forms a basis for the need for ways of limiting professional liability – professional indemnity insurance included.

For architects, the particularly pertinent areas are the following:

- Lack of knowledge of the relevant law. Although an architect is not expected to have the legal knowledge of a practicing lawyer, he should nevertheless have a good grasp of the law.
- Delegation of design duties. The architect may be found liable for design work that is delegated to other specialists because of the complexities of modern construction.
- Inadequate supervision of the works. The architect cannot be on site full time to inspect the construction. However he should ensure that the quality of the work matches up to the standard expected.
- Failure to examine site before construction. An architect should strive to examine the site of proposed construction so as to incorporate its characteristics into his design.

TABLE 4.4: LIABILITY FOR PROFESSIONAL NEGLIGENCE (ENGINEERS)

SCENARIO Should the engineer be liable for:	NO. IN AGREEMENT	% IN AGREEMENT
a. Poor advice on safety procedures	8	66.7
b. Not issuing timely instructions	11	91.7
c. Poor design of the works	11	91.7
d. Giving a false guarantee for fitness of purpose	7	58.3
e. Inadequate site examination	12	100
f. Inadequate specialist survey	8	66.7
g. Not producing what the client wants	11	91.7

SOURCE: Own Field Survey 2002

Consulting Engineers may be held liable, especially in the following situations:

- Not providing adequate advice on safety issues to the contractor who is carrying out the construction.
- Inadequate examination of site. The engineer, just like the architect, should make a thorough examination of site before construction takes place.

- Poor design of the works. An engineer should exercise reasonable care and skill in design so as to ensure that the works meet up to the expected standards.

TABLE 4.5: LIABILITY FOR PROFESSIONAL NEGLIGENCE (QUANTITY SURVEYORS)

SCENARIO Should the quantity surveyor be liable for:	NO. IN AGREEMENT	% IN AGREEMENT
a. Wrong valuations.	9	69.2
b. Not possessing professional knowledge.	5	38.5
c. Not possessing legal knowledge.	5	38.5
d. Providing misleading estimates.	10	76.9
e. Errors in bills of quantities.	11	84.6
f. Not exercising the expected standard of care.	9	69.2

SOURCE: Own Field Survey 2002

Quantity Surveyors may also be held liable in the following instances:

- Providing wrong valuations for the issuance of interim or final certificates. It is the quantity surveyor's duty to measure the work done on site, goods and materials for the payment of the contractor.
- Provision of misleading estimates. In providing an estimate for the client of the cost of the works, the quantity surveyor does not have to present the exact figure of construction cost. The estimate, however, should not be grossly misstated.
- Errors in the preparation of bills of quantities. It is one of the major duties of a quantity surveyor to prepare the bills of quantities. In doing so, he should exercise such care and skill to ensure that the document is prepared well.

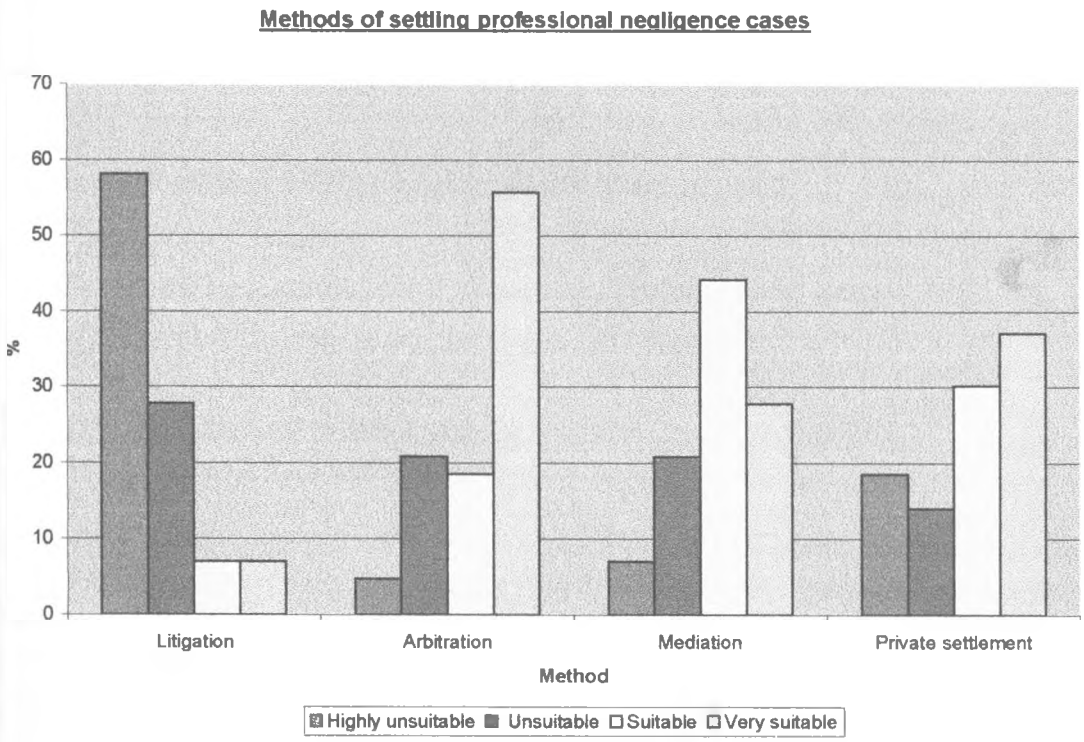
The findings above point to the fact that the professionals working in the construction industry are well aware of the risk that they face on account of the risk being held liable for professional negligence. This forms the foundation for the use of alternative methods of limiting the effects of professional liability.

4.2.2 Methods of Settling Professional Negligence Cases and of Limiting Professional Liability

4.2.2.1 Methods of settling professional negligence cases.

The professionals were asked about the suitability of a umber of methods that may be employed to settle cases of professional negligence that may arise. The results are shown below:

FIG 4.1: METHODS OF SETTLING PROFESSIONAL NEGLIGENCE.



Source: Own Field Study 2002

The findings show that 86% of the professionals think that litigation is either an unsuitable or highly unsuitable way of settling professional negligence cases. The process of litigation is slow, expensive and involves a lot of publicity which may be injurious to the reputation of the professional. As such, it is not a favoured way of settling disputes and may only be used as a last resort in the event of all else failing.

74.4% of the sample regard arbitration as suitable or very suitable for settling professional negligence cases, while 72.1% and 67.4% thought that mediation and private settlement are either suitable or very suitable methods.

This shows the popularity of alternative dispute resolution techniques in the settlement of conflicts. Arbitration has an added advantage in that the decision made by the arbitrator is binding on the parties. Mediation and private settlement are also useful methods, even though less formal and less binding on the parties than arbitration is.

4.2.2.2 Methods of limiting professional liability.

The professionals were asked about the usefulness of certain ways of limiting professional liability. The results are presented below:

TABLE 4.6: USEFULNESS OF THE METHODS OF LIMITING PROFESSIONAL LIABILITY.

METHOD	USELESS	RISKY	SUITABLE/ BEST SUITED	% SUITABLE
a. Limited liability companies.	8	5	30	69.8
b. Professional indemnity policies.	1	0	42	97.6
c. Doing work carefully.	8	8	27	62.8
d. Setting money aside.	17	15	11	25.6
e. Exclusion clauses in contracts.	22	14	7	16.3

SOURCE: Own Field Survey 2002

A total of 42 professionals were of the opinion that professional indemnity insurance policies are either suitable or best suited to cover the risk of professional negligence. This represents 97.6% of the sample. Professional indemnity insurance policies undertake to compensate the insured for any sums he may undertake to compensate the insured for any sums he may become legally liable to pay in the ordinary course of his business due to any negligent act, error or omission committed. This clearly is a useful method of limiting the effects of professional liability.

69.8% list practising as a limited liability company as a suitable method or as the method best suited to cover the risk of professional negligence. In a limited liability company, the liability of the members is restricted to the amount, if any at all, remaining unpaid on the share capital of the entity. This is another useful method of dealing with the professional negligence risk.

The carrying out of professional work in as careful a manner as possible was chosen by 62.8% of the professionals as another useful way of limiting professional liability. In addition to paying attention to detail when performing office or professional work, good office management procedures can help to prevent claims of negligence from arising.

74.4% of the consultants were of the view that setting aside some money for unforeseen risks is either a very risky or useless method. 83.8% of them were against using exclusion clauses in contracts as a way of limiting professional liability. Setting aside money is not a fool-proof method because it can easily be overlooked or the money reserved may be used for a more pressing, immediate problem. The use of exclusion clauses in contracts is not suitable because it may be prohibited by professional bodies.

The professionals were given a chance to comment on the appropriateness of the various approaches to managing the risk of professional liability. The results are summarized in the table below.

TABLE 4.7: APPROPRIATENESS OF RISK MANAGEMENT APPROACHES.

RISK MANAGEMENT PROCEDURE	APPROPRIATE/ TOTALLY APPROPRIATE	WHOLLY INAPPROPRIATE	% APPROPRIATE
a. Risk avoidance.	35	8	81.4
b. Risk retention.	12	31	27.9
c. Risk transfer.	26	17	60.5
d. Sharing the risk.	35	8	81.4
e. Risk reduction.	42	1	97.7

SOURCE: Own Field Survey 2002

Almost 98% of the consultants agreed that risk reduction is an appropriate way of handling the risk of professional negligence. Risk reduction is either achieved by reducing the chances of the loss occurring or by taking out an insurance policy – professional indemnity insurance in this case.

35 professionals, forming 81.4% of the sample were of the opinion that both risk avoidance and sharing the risk were also appropriate approaches to risk management. Avoiding the risk is a fool-proof way of dealing with the professional negligence risk since the individual takes no part in the risky activity. However, it means not practicing for the professional, which may be a drastic step. Sharing the risk involves apportioning losses amongst the group of individuals. It may be achieved by forming a partnership or a limited liability company.

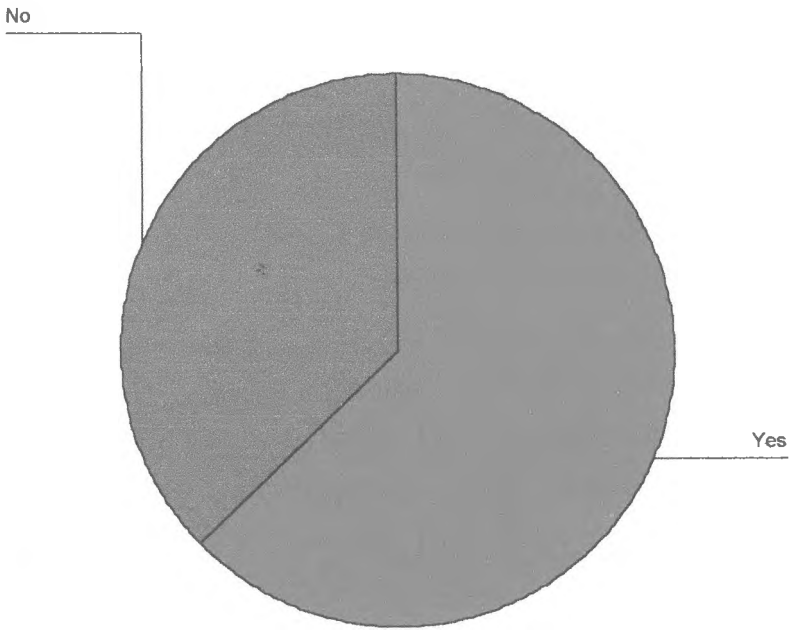
Risk retention is not a favoured method of handling risk. 72.1% of the consultants considered it as inappropriate. The retention of risk involves no positive attempts by the individual to avoid, reduce or transfer the risk.

4.2.2.3 Usage of professional indemnity insurance policies.

Professionals.

The firms were asked whether they possessed professional indemnity insurance policies. The results are summarized in the figure below.

FIG 4.2: POSSESSION OF PROFESSIONAL INDEMNITY POLICIES.



Source: Own Field Survey 2002

27 of the firms were in the possession of valid professional indemnity insurance policies. This represents 63% of the sample. For many contracts nowadays, the possession of a valid professional indemnity insurance policy is a pre-requisite for handling the consultancy work. Some of the firms that did not possess the policies were small (both in size and in the magnitude of work handled) and complained that the policies were too expensive for them.

The group was then questioned about the usefulness of professional indemnity insurance in the Kenyan construction industry. The results are shown in the following table.

TABLE 4.8: USEFULNESS OF PROFESSIONAL INDEMNITY INSURANCE POLICIES.

Professional indemnity insurance is:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	useful but not suitable	7	16.3	16.3	16.3
	useful and should be encouraged	36	83.7	83.7	100.0
	Total	43	100.0	100.0	

Source: Own Field Survey 2002

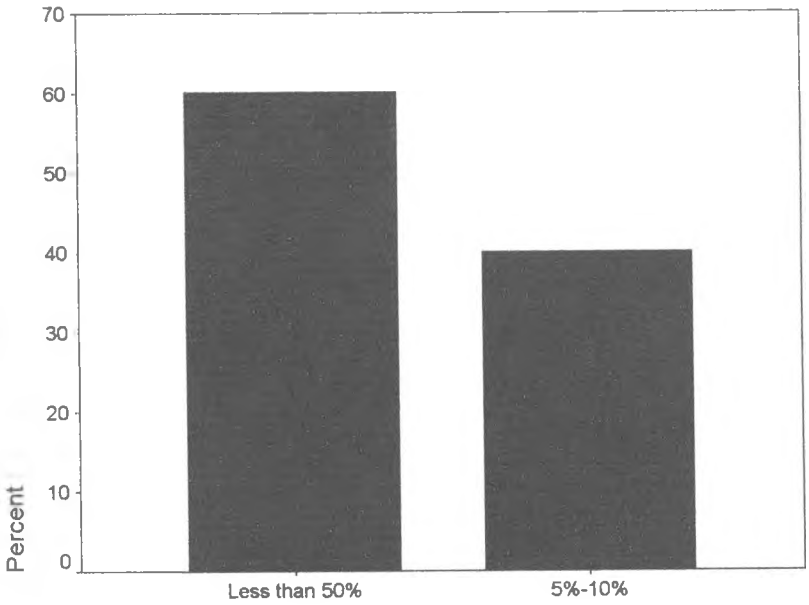
36 of the professionals (84%) said that professional indemnity insurance policies are useful and suitable for the Kenyan construction industry and their use should be more greatly encouraged. Some went a step farther to say that they (the policies) should be made mandatory by law for all practicing firms. These findings point to the usefulness and relevance of professional indemnity insurance in the construction industry in Kenya.

Insurance companies.

The insurers were asked whether they offer professional indemnity insurance covers for architects, engineers and quantity surveyors. 4 of them, representing 80% of the sample, affirmed that they do offer such policies.

They were then asked to give the proportion of total premiums for professional indemnity insurance that the construction industry professionals make. The results are given below.

FIG 4.3: PROPORTION OF TOTAL BUSINESS MADE BY CONSTRUCTION INDUSTRY.



Source: Own Field Survey 2002

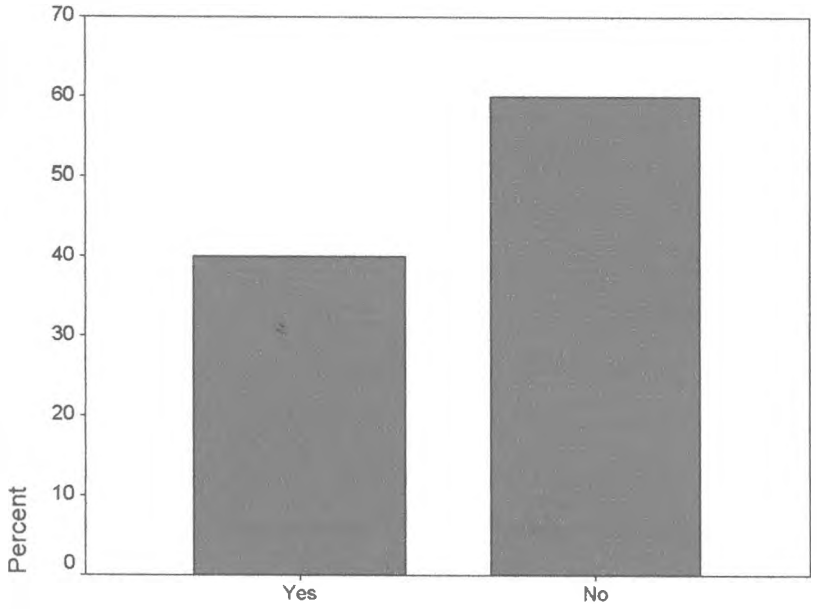
60% of the companies said that the construction industry professionals contribute between 10 and 25% the total premiums for professional indemnity policies. 20% of the companies claimed that the group contributes less than 10% of the total professional indemnity policies.

These findings suggest that the professionals in the construction industry have a small chunk of the professional indemnity market.

4.2.2.4 Performance of professional indemnity insurance policies.

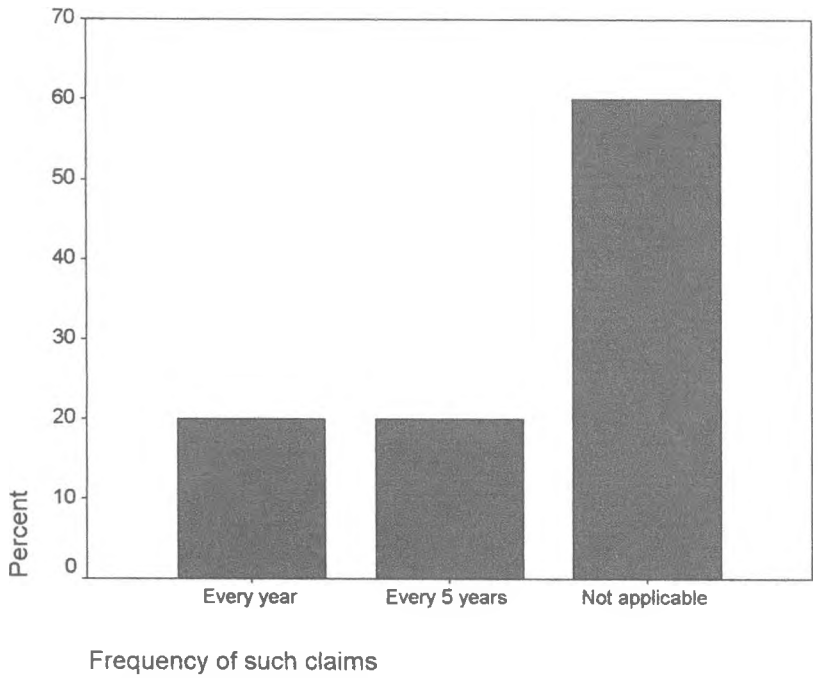
Professionals

FIG. 4.4: NO. OF CLAIMS SETTLED USING PROF. INDEMNITY INSURANCE.



Source: Own Field Survey 2002

FIG. 4.5: FREQUENCY OF CLAIMS SETTLED USING PROFESSIONAL INDEMNITY INSURANCE.



Source: Own Field Survey 2002

Two insurance companies (40%) agreed that they had settled professional negligence claims against construction industry consultants. One of the insurers said that professional negligence claims arose every year while the other was of the opinion that such claims arose every five years.

It is evident from these results that professional negligence claims against architects, engineers and quantity surveyors arise very infrequently, and as a result, professional indemnity insurance policies have not been used very much in the settlement of claims that arise from the negligence of the professionals working in the construction industry.

Cornes (1985) gives two reasons why professional negligence claims are few:

- Not every dispute results in a legal action and a court case: some are settled privately.
- Insurers providing insurance indemnity policies may be reluctant to divulge information regarding settled claims.

4.2.2.5 Features of Professional indemnity policies suitable for the construction industry.

Professionals

The consultants were requested to indicate whether they would like certain features as extensions to the basic policy offered by insurance companies. The results are summarized in the table below:

TABLE 4.10 EXTENSIONS TO THE PROFESSIONAL INDEMNITY POLICY.

EXTENSION	NO. IN AGREEMENT	% AGREEMENT
a. Cover for libel and slander.	14	32.6
b. Cover for loss of documents.	23	53.5
c. Cover for recovery of fees from the client.	41	95.3
d. Cover for dishonest employees.	15	34.9
e. Cover for work of other consultants.	16	37.2

SOURCE: Own Field Survey 2002

The extensions desired most by the professionals were the following:

- Cover for recovery of fees from the client. This additional cover enables the insurance company to chase for the legal costs involved in the process of claiming professional fees from the client. 95.3% of the professionals listed this as an extension.
- Cover for loss of documents. This provides compensation to the insured for any documents that may be lost or destroyed from his business premises.
- Cover for the work of other consultants. This provides cover for other consultants who may be employed by the client or the designer.

Insurance companies.

The insurers were asked whether they offer some of the common extensions to professional indemnity. Their response was as follows:

TABLE 4.11 EXTENSIONS TO THE PROFESSIONAL INDEMNITY POLICIES OFFERED.

EXTENSION	NO. IN AGREEMENT	NO. NOT IN AGREEMENT	% AGREEMENT
a. Cover for libel and slander.	5	0	100
b. Cover for loss of documents.	5	0	100
c. Cover for recovery of fees from the client.	2	3	40
d. Cover for dishonest employees.	3	2	60
e. Cover for work of other consultants.	2	3	40

SOURCE: Own Field Survey 2002

The results indicate that the extensions to professional indemnity policies most commonly offered by insurance companies are:

- Cover for libel and slander.
- Cover for loss of documents.
- Cover for dishonest employees.

These findings show a slight variance between the extensions that the professionals prefer, and those that are commonly offered by insurers.

Other comments concerning the use of professional indemnity insurance in the construction industry in Kenya as given by professionals and insurance companies included the following:

- Many of the professionals were of the view that professional indemnity insurance has not been utilized to its full potential in Kenya and its use should be given more importance.

- Lack of knowledge by the client has also allowed some of the professionals to get away with acts of professional negligence. Some professionals thought that the law should be made stricter on this issue. Others claimed that clients' ignorance is a contributing factor to the few cases of professionals being held liable for professional negligence.

- Lack of knowledge by the professionals on the use and merits of professional indemnity insurance was also cited as a reason for lack of its optimal utilization. There is a need for more awareness on professional indemnity insurance in the construction industry.

- One professional said that professional indemnity insurance policies should come in the contract of employment with the clients such that the professional provides a guarantee of his performance using the policy (like a contractor in a building contract may be required to give a performance bond while the client also gives a guarantee for payment of fees.

- Some of the professionals indicated that the use of professional indemnity insurance should not absolve the consultant from performing professional work meticulously and thoroughly.

- The insurance companies claimed that this is a risky area of business and as such not many companies offer these policies. Until relatively recently, only one or two insurance companies in the country offered professional indemnity policies. The cover of construction industry professionals is even more risky than some of the other professions. One insurer said that the re-insurer gives an upper limit of the business that they can receive from architects, engineers and quantity surveyors.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.10 Conclusions

It is clear from the results of the research that professional indemnity insurance is a useful method of handling the risk of professional negligence. The need for it is evident. However, it does not seem to have been utilized to its full potential in settling claims from cases of professional negligence in this country. The conclusions from this study on the use and performance of professional indemnity insurance are summarized below:

- There is a need for the use of professional indemnity insurance in Kenya by architects, engineers and quantity surveyors. The professionals each have their own duties to perform in order to render their services to their client. It is clear that any negligent act, error or omission committed in the fulfillment of those professional tasks should result in the consultant being held liable for professional negligence. However, the ignorance of some clients may prevent them from enforcing their legal right to remedy for the negligence of the professionals they employ. Nevertheless, the professional is entitled to protect himself against the consequences of such an action being brought against his firm. One of the ways of doing this is by taking out a professional indemnity insurance policy.

- There are a variety of methods that may be used to settle cases of professional negligence and also to limit the consequences of professional liability. Litigation is not a favoured method in the settlement of professional negligence cases. Many professionals would instead prefer to use alternative dispute resolution methods, with arbitration and mediation being especially popular.

  The methods of limiting professional liability are also varied. Many of the consultants in the construction industry feel that professional indemnity insurance

policies are very well suited for this objective. Practising as a limited liability company and the carrying out of work carefully are also ways of limiting professional liability. Self-insurance (setting aside some money) and the use of exclusion clauses in the contracts are not as popular or effective as the above methods in limiting liability.

The various approaches to risk management that a professional may adopt are also relevant. The reduction of risk, risk avoidance and sharing the risk are preferred ways of dealing with the risk of professional negligence. However, retention of the risk by the professional is not an appropriate way of handling it.

- Many professional firms do possess professional indemnity insurance policies, underlining their importance to the industry. However, there still is scope for optimising their utilization by, for example, insurance companies targeting smaller professional firms and young upcoming professionals. The use of professional indemnity insurance needs to be encouraged a great deal more, perhaps by legislative means. The number of insurance companies offering professional indemnity policies is small, and the amount of total professional indemnity business that is contributed by the construction industry professionals is not very large either.

- There are not many cases of professional negligence in this country. As a result, very few professionals practicing in the construction industry have needed to resort to the use of their professional indemnity insurance policies to settle claims of professional negligence. Similarly, the insurance companies offering professional indemnity policies have not had to settle many claims against architects, engineers or quantity surveyors for professional negligence. Even the insurers who have had to settle professional negligence claims against construction industry consultants did not do so on a regular basis.

- Many professionals are not aware of the extensions to professional indemnity insurance policies that may be offered by insurance companies. The insurance

companies offering professional indemnity policies have not tailored their extensions to the needs of the professionals in the construction industry.

5.20 Research Hypothesis

The hypothesis set out at the beginning of this research was the following one:

"Lack of awareness and the few reported cases of professional negligence in the construction industry have caused professional indemnity insurance not to be fully utilized in this country and have prevented it from performing effectively in limiting claims for professional negligence".

From the findings of the study, the above hypothesis has been proved correct.

5.30 Recommendations

In line with the results obtained from the study, the researcher wishes to make the following recommendations regarding the use of professional indemnity insurance in the construction industry in Kenya:

1. There is a need for greater awareness among the participants in the construction process (clients and professionals especially) about the use and operation of professional indemnity policies. Insurance companies should be more aggressive in marketing these policies to the professionals. The professional associations should undertake to educate their members on the provisions of professional indemnity policies and on the management of the risk of professional liability risk using various methods, perhaps by organizing seminars on the same topic as part of the continuous professional development (CPD) programmes for their professionals.

2. Professional indemnity insurance policies should be incorporated into the law such that it is mandatory for practising professionals to possess valid policies before they take up consultancy work for construction projects. This is a sure way of fostering and encouraging the use of professional indemnity insurance in the construction industry in Kenya.

3. The professionals in the construction industry form a small proportion of the professional indemnity insurance business in the insurance market. They should therefore combine into larger groups and take out professional indemnity group schemes, instead of taking out individual policies. This will ensure that they have better bargaining power and the cover will extend to many more persons, even younger professionals and smaller firms, who may not otherwise have had access to such policies.

4. There should be greater interaction between the insurance companies offering professional indemnity insurance and the professionals in the construction industry. This will enable the insurance companies to design policies that best suit the needs of the construction industry professionals by, for instance, incorporating extensions to the basic policy which the consultants value the most.

5.40 Suggested Areas for Further Research

1. This research has come up with the conclusion that there are few cases reported of professional negligence in Kenya. More work can be done to establish the reasons for this.

2. Research can be carried out to determine the ways in which the awareness about professional indemnity insurance among clients and professionals in the construction industry can be enhanced.

3. Studies can also be done to find out other reasons for the low proportion of professional negligence claims that have been settled using professional indemnity insurance policies.

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APPENDIX A

UNIVERSITY OF NAIROBI
DEPARTMENT OF BUILDING ECONOMICS & MANAGEMENT

RESEARCH TITLE: LIABILITY & INSURANCE IN THE KENYAN CONSTRUCTION INDUSTRY - AN EVALUATION OF THE PLACE & PERFORMANCE OF PROFESSIONAL INDEMNITY INSURANCE.

QUESTIONNAIRE TO BE ADMINISTERED TO ARCHITECTS.

INTRODUCTION.

The aim of this research is:

1) To identify the extent to which professional indemnity insurance is used.
2) To investigate the usefulness of such policies.
3) To identify suitable features of professional indemnity policies.
4) To assess the methods for settling professional negligence and for limiting professional liability.

PART ONE: LIABILITY

1. Architects practising in the Commonwealth have been held to be professionally negligent by courts of law in the following situations. Do you think the same decision would hold in Kenya given the conditions of our construction industry? (Please tick as appropriate)

a) Delegation of design duties to others who perform shoddy work
☐ YES ☐ NO

b) Lack of adequate knowledge of the relevant law.
☐ YES ☐ NO

c) Selection of incompetent contractors.
☐ YES ☐ NO

d) Inadequate supervision of the works.
☐ YES ☐ NO

e) Design of unsatisfactory buildings and poor specifications.
☐ YES ☐ NO

f) Overvaluation or undervaluation in the issuance of certificates.
☐ YES ☐ NO

g) Failure to examine the site of construction.
☐ YES ☐ NO

h) Failure to advise on and to administer the contract well.
☐ YES ☐ NO

i) Inadequate investigation of defects.
☐ YES ☐ NO

j) Failing to ensure that the building will be fit for the intended use.
☐ YES ☐ NO

k) Making negligent misstatements.
☐ YES ☐ NO

2. Do you think that architects should:(Please tick as appropriate)
a) Owe a duty to clients arising out of the contracts with them. ☐ YES ☐ NO
b) Owe a duty to clients, which is independent of the contract. ☐ YES ☐ NO
c) Owe a duty to third parties that may be affected by their work.
☐ YES ☐ NO
d) Be judged by the standard of care of an ordinary and skilled architect.
☐ YES ☐ NO

3. How suitable would you say the following methods are in settling claims for professional negligence: (Please circle as appropriate)
a) Litigation. 1 2 3 4
b) Arbitration. 1 2 3 4
c) Mediation. 1 2 3 4
d) Private settlement. 1 2 3 4
1= Highly unsuitable.
2= Unsuitable.
3= Suitable.
4= Very suitable.

4. How would you rate the following methods of reducing the risk of professional liability: (Please circle as appropriate)
a) Practising as a limited liability company. 1 2 3 4
b) Using professional indemnity policies. 1 2 3 4
c) Carrying out work as carefully as possible. 1 2 3 4
d) Setting aside some money for unforeseen risks. 1 2 3 4
e) Using exclusion clauses in the contract. 1 2 3 4
1= It is practically useless.
2= It may work but is very risky.
3= It is suitable.
4= It is best suited to cover the risk.

5. How appropriate would it be to use the following risk management procedures to address the threat of professional liability: (Please circle as appropriate)

a) Risk avoidance. 1 2 3
a) Risk retention. 1 2 3
b) Risk transfer. 1 2 3
c) Sharing the risk. 1 2 3
d) Risk reduction. 1 2 3
1= wholly inappropriate.
2= appropriate
3= totally appropriate.

PART TWO: INSURANCE.

6. Does your firm possess a professional indemnity insurance policy? (Please tick)
☐YES ☐NO

7. Would you say that professional indemnity insurance for an architect in Kenya is: (Please tick as appropriate)
a) Not necessary as it does not serve any useful purpose. ☐YES ☐ NO
b) Useful but not suitable for the local industry. ☐YES ☐ NO
c) Useful, suitable and its use should be encouraged. ☐YES ☐ NO

8. Have you in your professional life, had to settle a claim for professional negligence? (Please tick). ☐YES ☐ NO

9. Would you say that the amount covered by professional indemnity insurance policy is: (Please tick).
a) Inadequate. ☐YES ☐ NO
b) Adequate. ☐YES ☐ NO
c) Excessive. ☐YES ☐ NO

10. Are the premiums payable on professional indemnity insurance policies: (Please tick as appropriate)
a) Very high. ☐
b) High. ☐
c) Reasonable. ☐
d) Low. ☐

11. Would you like to see any of the following as extensions to professional indemnity insurance policies: (Please tick as appropriate)
a) Cover for libel and slander. ☐
b) Cover for recovery of fees from the client. ☐
c) Cover for dishonest employees. ☐
d) Cover for the work of other consultants. ☐
e) Cover for loss of documents. ☐

12. Do you think that the following conditions should form part of a professional indemnity insurance policy? (Please tick as appropriate)
a) Giving the insurer notice of a claim. ☐
b) Reporting occurrences that may give rise to claims. ☐
c) Not making admission of liability. ☐
d) Insurer taking over the conduct of claims. ☐
e) Arbitration for differences between the insurer and the insured. ☐

13. Do you have any other comments as regards the use of professional indemnity insurance in the construction industry in Kenya?

APPENDIX B

UNIVERSITY OF NAIROBI
DEPARTMENT OF BUILDING ECONOMICS & MANAGEMENT

RESEARCH TITLE: LIABILITY & INSURANCE IN THE KENYAN CONSTRUCTION INDUSTRY - AN EVALUATION OF THE PLACE & PERFORMANCE OF PROFESSIONAL INDEMNITY INSURANCE.

QUESTIONNAIRE TO BE ADMINISTERED TO ENGINEERS.

INTRODUCTION.

The aim of this research is:

1) To identify the extent to which professional indemnity insurance is used.
2) To investigate the usefulness of such policies.
3) To identify suitable features of professional indemnity policies.
4) To assess the methods for settling professional negligence and for limiting professional liability.

PART ONE: LIABILITY

1. Engineers practising in the Commonwealth have been held to be professionally negligent by courts of law in the following situations. Do you think the same decision would hold in Kenya given the conditions of our construction industry? (Please tick as appropriate)

l) Providing inadequate advice on safety.
☐ YES ☐ NO

a) Not giving instructions within reasonable time.
☐ YES ☐ NO

b) Poor design of the works.
☐ YES ☐ NO

c) Giving guarantee as to fitness for purpose, which turns out not to be true.
☐ YES ☐ NO

d) Inadequate examination of site.
☐ YES ☐ NO

e) Inadequate specialist survey of buildings.
☐ YES ☐ NO

f) Failure to produce a design that will achieve what the client requires.
☐ YES ☐ NO

2. Do you think that engineers should:(Please tick as appropriate)

a) Owe a duty to clients arising out of the contracts with them. ☐ YES ☐ NO

b) Owe a duty to clients, which is independent of the contract. ☐ YES ☐ NO

c) Owe a duty to third parties that may be affected by their work.
☐ YES ☐ NO

d) Be judged by the standard of care of an ordinary and skilled engineer.

☐ YES ☐ NO

3. How suitable would you say the following methods are in settling claims for professional negligence (Please circle as appropriate)

a) Litigation. 1 2 3 4
b) Arbitration. 1 2 3 4
c) Mediation. 1 2 3 4
d) Private settlement. 1 2 3 4

1= Highly unsuitable.
2= Unsuitable.
3= Suitable.
4= Very suitable.

4. How would you rate the following methods of reducing the risk of professional liability: (Please circle as appropriate)

a) Practising as a limited liability company. 1 2 3 4
b) Using professional indemnity policies. 1 2 3 4
c) Carrying out work as carefully as possible. 1 2 3 4
d) Setting aside some money for unforeseen risks. 1 2 3 4
e) Using exclusion clauses in the contract. 1 2 3 4

1= It is practically useless.
2= It may work but is very risky.
3= It is suitable.
4= It is best suited to cover the risk.

5. How appropriate would it be to use the following risk management procedures to address the threat of professional liability: (Please circle as appropriate)

a) Risk avoidance. 1 2 3
b) Risk retention. 1 2 3
c) Risk transfer. 1 2 3
d) Sharing the risk. 1 2 3
e) Risk reduction. 1 2 3

1= Wholly inappropriate.
2= Appropriate.
3= Totally appropriate.

PART TWO: INSURANCE.

6. Does your firm possess a professional indemnity insurance policy? (Please tick)

☐YES ☐NO

7. Would you say that professional indemnity insurance for an engineer in Kenya is: (Please tick as appropriate)

a) Not necessary as it does not serve any useful purpose. ☐YES ☐ NO
b) Useful but not suitable for the local industry. ☐YES ☐ NO
c) Useful, suitable and its use should be encouraged. ☐YES ☐ NO

8. Have you in your professional life, had to settle a claim for professional negligence? (Please tick). ☐YES ☐ NO

9. Would you say that the amount covered by professional indemnity insurance policy is: (Please tick).

a) Inadequate. ☐YES ☐ NO
b) Adequate. ☐YES ☐ NO
c) Excessive. ☐YES ☐ NO

10. Are the premiums payable on professional indemnity insurance policies: (Please tick as appropriate)

a) Very high. ☐
b) High. ☐
c) Reasonable. ☐
d) Low. ☐

11. Would you like to see any of the following as extensions to professional indemnity insurance policies: (Please tick as appropriate)

a) Cover for libel and slander. ☐
b) Cover for recovery of fees from the client. ☐
c) Cover for dishonest employees. ☐
d) Cover for the work of other consultants. ☐
e) Cover for loss of documents. ☐

12. Do you think that the following conditions should form part of a professional indemnity insurance policy? (Please tick as appropriate)

a) Giving the insurer notice of a claim. ☐
b) Reporting occurrences that may give rise to claims. ☐
c) Not making admission of liability. ☐
d) Insurer taking over the conduct of claims. ☐
e) Arbitration for differences between the insurer and the insured. ☐

13. Do you have any other comments as regards the use of professional indemnity insurance in the construction industry in Kenya?

APPENDIX C

UNIVERSITY OF NAIROBI
DEPARTMENT OF BUILDING ECONOMICS & MANAGEMENT

RESEARCH TITLE: LIABILITY & INSURANCE IN THE KENYAN CONSTRUCTION INDUSTRY - AN EVALUATION OF THE PLACE & PERFORMANCE OF PROFESSIONAL INDEMNITY INSURANCE.

QUESTIONNAIRE TO BE ADMINISTERED TO QUANTITY SURVEYORS.

INTRODUCTION.

The aim of this research is:

1) To identify the extent to which professional indemnity insurance is used.
2) To investigate the usefulness of such policies.
3) To identify suitable features of professional indemnity policies.
4) To assess the methods for settling professional negligence and for limiting professional liability.

PART ONE: LIABILITY

1. Quantity surveyors practising in the Commonwealth have been held to be professionally negligent by courts of law in the following situations. Do you think the same decision would hold in Kenya given the conditions of our construction industry? (Please tick as appropriate)

a) Making significant under- or over-valuations.
☐ YES ☐ NO

b) Not possessing the relevant professional knowledge.
☐ YES ☐ NO

c) Not possessing the relevant legal knowledge.
☐ YES ☐ NO

d) Providing a misleading estimate.
☐ YES ☐ NO

e) Substantial errors in the preparation of the bills of quantities.
☐ YES ☐ NO

f) Not exercising the required standard of care.
☐ YES ☐ NO

2. Do you think that quantity surveyors should: (Please tick as appropriate)

a) Owe a duty to clients arising out of the contracts with them. ☐ YES ☐ NO
b) Owe a duty to clients, which is independent of the contract. ☐ YES ☐ NO
c) Owe a duty to third parties that may be affected by their work. ☐ YES ☐ NO
d) Be judged by the standard of care of an ordinary and skilled consultant. ☐ YES ☐ NO

3. How suitable would you say the following methods are in settling claims for professional negligence: (Please circle as appropriate)

a) Litigation. 1 2 3 4
b) Arbitration. 1 2 3 4
c) Mediation. 1 2 3 4
d) Private settlement. 1 2 3 4

1= Highly unsuitable.
2= Unsuitable.
3= Suitable.
4= Very suitable.

4. How would you rate the following methods of reducing the risk of professional liability: (Please circle as appropriate)

a) Practising as a limited liability company. 1 2 3 4
b) Using professional indemnity policies. 1 2 3 4
c) Carrying out work as carefully as possible. 1 2 3 4
d) Setting aside some money for unforeseen risks. 1 2 3 4
e) Using exclusion clauses in the contract. 1 2 3 4

1= It is practically useless.
2= It may work but is very risky.
3= It is suitable.
4= It is best suited to cover the risk.

6. How appropriate would it be to use the following risk management procedures to address the threat of professional liability: (Please circle as appropriate)

a) Risk avoidance. 1 2 3
b) Risk retention. 1 2 3
c) Risk transfer. 1 2 3
d) Sharing the risk. 1 2 3
e) Risk reduction. 1 2 3

1= Wholly inappropriate.
2= Appropriate.
3= Totally appropriate.

PART TWO: INSURANCE.

6. Does your firm possess a professional indemnity insurance policy? (Please tick)

☐YES ☐NO

7. Would you say that professional indemnity insurance for a quantity surveyor in Kenya is: (Please tick as appropriate)

a) Not necessary as it does not serve any useful purpose. ☐YES ☐ NO
b) Useful but not suitable for the local industry. ☐YES ☐ NO
c) Useful, suitable and its use should be encouraged. ☐YES ☐ NO

8. Have you in your professional life, had to settle a claim for professional negligence? (Please tick) ☐YES ☐ NO

9. Would you say that the amount covered by professional indemnity insurance policy is: (Please tick as appropriate)

a) Inadequate. ☐YES ☐ NO
b) Adequate. ☐YES ☐ NO
c) Excessive. ☐YES ☐ NO

10. Is the premiums payable on professional indemnity insurance policies: (Please tick as appropriate)

a) Very high. ☐
b) High. ☐
c) Reasonable. ☐
d) Low. ☐

11. Would you like to see any of the following as extensions to professional indemnity insurance policies: (Please tick as appropriate)

a) Cover for libel and slander. ☐
b) Cover for recovery of fees from the client. ☐
c) Cover for dishonest employees. ☐
d) Cover for the work of other consultants. ☐
e) Cover for loss of documents. ☐

12. Do you think that the following conditions should form part of a professional indemnity insurance policy? (Please tick as appropriate)

a) Giving the insurer notice of a claim. ☐
b) Reporting occurrences that may give rise to claims. ☐
c) Not making admission of liability. ☐
d) Insurer taking over the conduct of claims. ☐
e) Arbitration for differences between the insurer and the insured. ☐

13. Do you have any other comments as regards the use of professional indemnity insurance in the construction industry in Kenya?

APPENDIX D

UNIVERSITY OF NAIROBI
DEPARTMENT OF BUILDING ECONOMICS & MANAGEMENT

RESEARCH TITLE: LIABILITY & INSURANCE IN THE KENYAN CONSTRUCTION INDUSTRY - AN EVALUATION OF THE PLACE & PERFORMANCE OF PROFESSIONAL INDEMNITY INSURANCE.

QUESTIONNAIRE TO BE ADMINISTERED TO INSURANCE COMPANIES.

INTRODUCTION.

The aim of this research is:

1) To identify the extent to which professional indemnity insurance is used.
2) To investigate the usefulness of such policies.
3) To identify suitable features of professional indemnity policies.
4) To assess the methods for settling professional negligence and for limiting professional liability.

QUESTIONS.

1. Does your company offer the following policies:(Please tick as appropriate)
   - a) Employers' liability. ☐ YES ☐ NO
   - b) Public liability. ☐ YES ☐ NO
   - c) Professional indemnity. ☐ YES ☐ NO
   - d) Damage to property during construction. ☐ YES ☐ NO
   - e) Motor policies. ☐ YES ☐ NO
   - f) Contractor All Risks. ☐ YES ☐ NO
   - g) Insurance of buildings and contents of premises. ☐ YES ☐ NO
   - h) Insurance of plant and equipment. ☐ YES ☐ NO
   - i) Engineering insurance. ☐ YES ☐ NO
   - j) Goods in transit. ☐ YES ☐ NO
   - k) Insurance of money. ☐ YES ☐ NO
   - l) Consequential loss. ☐ YES ☐ NO
   - m) Fidelity guarantee. ☐ YES ☐ NO
   - n) Personal accident. ☐ YES ☐ NO

2. Which year did your company start offering professional indemnity policies?

   _____

3. What proportion does professional indemnity insurance represent in your business? (Please tick as appropriate)
   - a) Less than 5% ☐ b) 5%-10% ☐ c) 10%-20% ☐
   - d) 20%-50% ☐ e) More than 50% ☐

4. Do you provide professional indemnity insurance cover for the following professionals: (Please tick as appropriate)

a) Architects. ☐ YES ☐ NO
b) Engineers. ☐ YES ☐ NO
c) Quantity surveyors. ☐ YES ☐ NO

5. What proportion of total premiums for professional indemnity insurance policies do architects, engineers and quantity surveyors contribute as a group? (Please tick)

a) Less than 10% ☐ b) 10-25% ☐ c) 25-50% ☐
d) More than 50% ☐

6. Do you offer the following conditions as part of your professional indemnity insurance policies? (Please tick as appropriate)

a) Insured giving immediate notice of claims. ☐ YES ☐ NO
b) Insured reporting occurrences that may give rise to claims. ☐ YES ☐ NO
c) Insured not making admissions of liability. ☐ YES ☐ NO
d) Insurer taking over the conduct of claims. ☐ YES ☐ NO
e) Arbitration for differences between the insurer and the insured. ☐ YES ☐ NO

7. Would you say that the excess for professional indemnity insurance policies when compared with the excess for other policies is: (Please tick as appropriate)

a) Very low ☐ b) Low ☐ c) Average ☐
d) High ☐ e) Too High ☐

8. Does your company provide any of the following extensions to the professional indemnity insurance policies: (Please tick as appropriate)

a) Cover for libel and slander. ☐
b) Cover for loss of documents. ☐
b) Cover for recovery of fees. ☐
b) Cover for dishonest employees. ☐
b) Cover for the work of other consultants. ☐

9. Which method do you use in assessing premiums to be charged to professionals taking up professional indemnity insurance policies: (Please tick as appropriate)

a) Fees earned. ☐
b) Number of qualified staff in a firm. ☐
c) Type of work undertaken. ☐
d) Limit of indemnity. ☐
e) Other (Please specify) _____

_____

10. Has your company settled any claim against architects, engineers or quantity surveyors using the professional indemnity insurance policy? (Please tick as appropriate)

YES ☐ NO ☐

11. If YES what is the frequency of such claims: (Please tick as appropriate)

a) Several times a month. ☐
b) Several times a year. ☐
c) Several times every 5 years. ☐
d) A few times in 10 years or more. ☐

12. What percentage of premiums received from professional indemnity insurance do the settled claims make: (Please tick as appropriate)

a) Less than 5% ☐ b) 5-10% ☐ c) 10% - 25% ☐
d) 25-50% ☐ e) Above 50% ☐

13. Do you have any other comments as regards the use of professional indemnity insurance in the construction industry in Kenya?

APPENDIX E

SPSS RAW DATA AND CODING TABLES

RAW DATA FOR PROFESSIONALS

Q3A	Q3B	Q3C	Q3D	Q4A	Q4B	Q4C	Q4D
1.00	2.00	3.00	4.00	4.00	4.00	3.00	2.00
3.00	4.00	2.00	3.00	1.00	3.00	4.00	1.00
1.00	4.00	4.00	1.00	3.00	4.00	4.00	1.00
1.00	4.00	2.00	4.00	1.00	4.00	4.00	2.00
2.00	4.00	3.00	4.00	4.00	3.00	4.00	3.00
1.00	4.00	3.00	3.00	3.00	4.00	3.00	2.00
1.00	4.00	4.00	1.00	4.00	4.00	3.00	1.00
1.00	2.00	3.00	4.00	3.00	4.00	2.00	2.00
3.00	4.00	2.00	2.00	2.00	4.00	4.00	2.00
4.00	2.00	1.00	3.00	3.00	3.00	4.00	1.00
3.00	3.00	2.00	3.00	4.00	4.00	4.00	4.00
2.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00
1.00	4.00	4.00	3.00	3.00	4.00	4.00	4.00
1.00	4.00	4.00	2.00	3.00	4.00	3.00	1.00
1.00	4.00	4.00	4.00	3.00	3.00	3.00	4.00
2.00	4.00	3.00	2.00	3.00	3.00	2.00	1.00
1.00	4.00	4.00	3.00	1.00	4.00	3.00	1.00
2.00	3.00	4.00	3.00	1.00	3.00	4.00	1.00
1.00	3.00	2.00	3.00	3.00	4.00	1.00	2.00
1.00	2.00	2.00	4.00	3.00	4.00	1.00	2.00
2.00	3.00	2.00	4.00	3.00	4.00	1.00	2.00
1.00	4.00	3.00	4.00	3.00	3.00	2.00	1.00
1.00	2.00	3.00	4.00	1.00	4.00	2.00	2.00
2.00	3.00	2.00	4.00	3.00	3.00	1.00	2.00
1.00	4.00	3.00	1.00	1.00	3.00	4.00	1.00
1.00	4.00	4.00	2.00	3.00	3.00	4.00	1.00
1.00	4.00	2.00	1.00	4.00	3.00	1.00	3.00
2.00	3.00	4.00	2.00	4.00	3.00	4.00	2.00
1.00	4.00	1.00	1.00	3.00	4.00	2.00	1.00
1.00	2.00	3.00	4.00	3.00	4.00	3.00	2.00
1.00	2.00	3.00	4.00	1.00	3.00	1.00	1.00
1.00	2.00	4.00	3.00	1.00	4.00	2.00	2.00
2.00	4.00	3.00	4.00	3.00	3.00	1.00	2.00
1.00	4.00	3.00	2.00	4.00	3.00	3.00	1.00
1.00	4.00	3.00	4.00	3.00	4.00	3.00	3.00
1.00	4.00	3.00	3.00	4.00	4.00	4.00	1.00
1.00	2.00	4.00	4.00	4.00	4.00	4.00	4.00
2.00	4.00	3.00	1.00	2.00	4.00	3.00	3.00
2.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00
2.00	4.00	3.00	3.00	4.00	4.00	3.00	2.00
4.00	1.00	1.00	1.00	2.00	4.00	1.00	1.00
2.00	4.00	3.00	1.00	4.00	1.00	2.00	3.00
4.00	1.00	4.00	4.00	2.00	4.00	2.00	1.00

RAW DATA FOR PROFESSIONALS

Q4E	Q5A	Q5B	Q5C	Q5D	Q5E	Q6
1.00	3.00	1.00	2.00	2.00	3.00	2.00
2.00	3.00	1.00	2.00	3.00	3.00	2.00
1.00	3.00	2.00	3.00	1.00	3.00	1.00
1.00	3.00	1.00	2.00	2.00	2.00	1.00
1.00	2.00	1.00	1.00	2.00	3.00	1.00
1.00	1.00	1.00	1.00	2.00	2.00	2.00
1.00	2.00	1.00	3.00	2.00	2.00	1.00
1.00	3.00	1.00	3.00	3.00	3.00	1.00
3.00	1.00	1.00	2.00	2.00	3.00	2.00
2.00	1.00	2.00	1.00	2.00	1.00	2.00
2.00	3.00	3.00	1.00	1.00	3.00	1.00
4.00	3.00	1.00	3.00	2.00	3.00	1.00
2.00	1.00	2.00	3.00	3.00	2.00	1.00
2.00	3.00	1.00	2.00	2.00	3.00	1.00
4.00	2.00	2.00	1.00	2.00	3.00	1.00
2.00	2.00	2.00	1.00	1.00	2.00	2.00
2.00	3.00	1.00	2.00	2.00	2.00	2.00
1.00	3.00	1.00	1.00	2.00	2.00	2.00
1.00	2.00	1.00	2.00	1.00	3.00	2.00
1.00	1.00	1.00	2.00	2.00	3.00	1.00
1.00	3.00	1.00	2.00	2.00	3.00	2.00
2.00	2.00	1.00	1.00	2.00	2.00	1.00
1.00	1.00	1.00	2.00	2.00	3.00	2.00
1.00	2.00	1.00	2.00	3.00	3.00	1.00
2.00	2.00	1.00	1.00	2.00	3.00	1.00
1.00	3.00	2.00	2.00	3.00	3.00	1.00
3.00	1.00	2.00	1.00	2.00	3.00	1.00
2.00	2.00	2.00	2.00	2.00	3.00	1.00
1.00	3.00	1.00	2.00	3.00	2.00	1.00
1.00	2.00	1.00	3.00	2.00	2.00	1.00
2.00	3.00	1.00	2.00	2.00	3.00	2.00
1.00	3.00	2.00	2.00	2.00	3.00	2.00
1.00	2.00	1.00	2.00	1.00	3.00	1.00
1.00	2.00	1.00	1.00	1.00	2.00	1.00
2.00	2.00	1.00	1.00	1.00	3.00	2.00
3.00	2.00	1.00	1.00	2.00	3.00	1.00
1.00	3.00	1.00	1.00	1.00	3.00	1.00
1.00	3.00	1.00	1.00	2.00	2.00	2.00
2.00	2.00	1.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	3.00	2.00	2.00	1.00
2.00	2.00	2.00	2.00	2.00	2.00	1.00
4.00	3.00	1.00	2.00	2.00	3.00	1.00
1.00	1.00	1.00	1.00	2.00	3.00	1.00

RAW DATA FOR PROFESSIONALS

Q7	Q8	Q11A	Q11B	Q11C	Q11D	Q11E
3.00	2.00	1.00	1.00	2.00	2.00	2.00
2.00	2.00	2.00	1.00	1.00	2.00	1.00
3.00	2.00	1.00	1.00	1.00	2.00	1.00
3.00	2.00	2.00	1.00	2.00	1.00	2.00
2.00	2.00	2.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	1.00	1.00	1.00
3.00	2.00	1.00	1.00	2.00	2.00	1.00
3.00	2.00	2.00	2.00	2.00	2.00	1.00
2.00	2.00	2.00	1.00	1.00	2.00	1.00
3.00	2.00	2.00	1.00	2.00	2.00	1.00
3.00	2.00	2.00	1.00	2.00	2.00	2.00
3.00	1.00	2.00	1.00	2.00	2.00	2.00
3.00	2.00	1.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	1.00	1.00	2.00
3.00	2.00	1.00	1.00	2.00	1.00	2.00
3.00	2.00	2.00	1.00	2.00	1.00	2.00
2.00	2.00	2.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	1.00	1.00	1.00
3.00	2.00	1.00	1.00	2.00	2.00	1.00
3.00	2.00	1.00	1.00	2.00	1.00	1.00
3.00	2.00	1.00	1.00	1.00	2.00	2.00
3.00	2.00	2.00	1.00	2.00	2.00	1.00
3.00	2.00	1.00	1.00	2.00	2.00	1.00
3.00	2.00	1.00	1.00	1.00	2.00	1.00
3.00	1.00	2.00	1.00	2.00	1.00	1.00
3.00	2.00	2.00	1.00	1.00	2.00	2.00
3.00	1.00	1.00	1.00	2.00	2.00	2.00
3.00	2.00	1.00	1.00	1.00	1.00	1.00
3.00	2.00	2.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	1.00	1.00	1.00
2.00	2.00	2.00	1.00	1.00	2.00	1.00
3.00	2.00	1.00	1.00	2.00	1.00	1.00
3.00	2.00	2.00	1.00	1.00	1.00	2.00
3.00	2.00	2.00	1.00	2.00	2.00	1.00
3.00	2.00	2.00	1.00	2.00	1.00	1.00
3.00	2.00	2.00	1.00	2.00	2.00	2.00
2.00	2.00	2.00	1.00	2.00	2.00	1.00
2.00	2.00	2.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	2.00	1.00	1.00
3.00	2.00	2.00	2.00	2.00	2.00	2.00
3.00	2.00	2.00	1.00	1.00	1.00	2.00
3.00	2.00	1.00	1.00	1.00	1.00	1.00

RAW DATA FOR INSURANCE COMPANIES

Q3	Q4	Q5	Q10	Q11	Q12
2.00	1.00	2.00	2.00	5.00	6.00
1.00	1.00	2.00	2.00	5.00	6.00
1.00	1.00	2.00	1.00	2.00	5.00
1.00	2.00	5.00	2.00	5.00	6.00
2.00	1.00	1.00	1.00	3.00	3.00