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COMPARISON OF RISK ALLOCATION IN STANDARD AND GENERAL CONTRACT DOCUMENTS

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ABSTRACT

The aim of the work is to compare the risks allotted between the two parties involved in a construction contract namely the contractor and owner. To compare the risk allocations, standard and general contract documents are identified and obtained in person and through internet. Then, the clauses which involve delays or extra costs to either party are identified as risk-related clauses.

These clauses were separated and categorized based on previous research. The categorized risk related clauses were compared against one another regarding their occurrence in all three documents obtained and the allocation of risk to each party within the contract. Additionally, Alternative Dispute Resolution mechanisms stated within the contract documents were studied and compared against one another.

From the analysis it was observed that SKS document is very much equal to the FIDIC standards, whereas CPWD document may not be much suitable for standardization because it does not have any discussion on environmental pollution, simpler ADR methods, infringements and fossils handling.

It is not simpler in language usage and maintained by a public government increasing the discussion of variety of risks, which causes contractors to bid higher than usual.

Key Words: Risk Allocation, Comparison, FIDIC, CPWD, General Contract Conditions.

I. INTRODUCTION

1.1 Background

Construction is a temporary project to be completed within a specific budget and time without compromising the quality of work and safety of the workers in the process. Completion of works on time needs the complete focus of each of the participant. Businesses cannot run for many enterprises, if they focus their resources on a single project. Smaller firms need more working capital and larger firms need positive cash flows to cover the negative cash flows in the currency of a project. Since this kind of choice occurs each party will try to maximize its profit from the

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projects in their hand. To achieve this, their resources will be focused on profitable ventures and less on unprofitable ones. The optimal usage of their resources increases the profits of enterprises. But from the other angle, the projects which are not much profitable receive less care like a step-child. Considering any construction project undertaken as a building block of the modern society and the national property, quality of the construction must be a focus on each construction. The only legal binding between the owner and contractor for any project is the contract document which will enforce both the parties to involve in the project, giving it necessary importance. Indian Contract Act, 1872 defines a contract as "An agreement enforceable by law" in its interpretation clause. Contract documents are the key ingredients of the construction projects in courts. They have the legal value and are enforceable in a court of law.

Construction projects need a mass of documentation to define their requirements including:

1. Tender notice
2. General rules and directions for use
3. Tender negotiations and acceptances
4. Expert reports
5. Agenda
6. Forms of Contract
7. Conditions of contracting
8. Schedule A – Material supplied by owner
9. Schedule B – Bill of quantities
10. Specifications
11. General
12. Detailed or Particular
13. Contract drawings

Conditions of contract specify the conditions where the contract stays valid and enforces the parties to meet the set standard. All the legal discussions arise from the conditions of contract than any other part of document because all other documents are technical portions, taken care by experts whereas the agreement form and conditions are drafted by legal and technical personnel together, keeping the requirement of owner in mind. More number of participants, requirement of materials from local supplies for each project and various other factors as discussed further in literature review, makes every project unique.

Different types of procurement methods exist to cater the different needs of the parties involved and project at hand. Some of the procurement routes are:

1. All-in-contracts
2. Lump sum contracts
3. Item rate or unit price contract
4. Percentage rate contract
5. Cost plus percentage rate contract
6. Cost plus fixed fee contract
7. Cost plus fluctuating fee contract
8. Target contract
9. Labor contract
10. BOT contract/ PPP contracts

The contract conditions will differ from project to project, region to region and time to time. The conditions are usually drafted based on the language used by the parties, regional conditions, general behavior of population etc. In the current trend of globalization, parties being involved in the projects are from different regions and the contract conditions are being drafted after heavy discussions. This leads to increased cost of the projects. Hence, many

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institutions around the world came up with general contract conditions which are applicable to projects which are common to their locality and some with conditions applicable anywhere in the world.

Construction industry being a conglomerate industry where no single party can completely take care of all its needs could not run on a single model of contract document. The format and wording differs in each of these documents. These general documents are not usually completely taken care of in the discussion of risk allocation and cause unexpected legal troubles. Hence, standard models are being preferred worldwide, depending on the need, availability and proficiency of the parties involved. Risks include both threats to and opportunities in a project. People involved in the project have to know the processes of identifying, analyzing and planning for potential risks that may impact the project. Risks can be analyzed qualitatively and quantitatively at the same time to evaluate their effect on the project. For a better project management, all the risks involved in a project must be identified and responses for each must be developed.

The greatest risks will often become the project objectives at a later stage. For transferring and sharing the risks to other parties, contract documents have to be used .Risks are uncertainties, which have potential to disrupt the whole project or just a part of it. Risks, like most other elements in a project, changes along with its progress. Since they are just uncertainties, the more you know about their impacts, the better you can handle its consequences. But it is a heavy planning process which discusses a number of elements in the project before even staring the project. This might make some stakeholders uneasy and uncertain of the project. Hence, a comfortable balance must be made at the time of planning the project itself, which can show the beneficial risks which will occur at a later stage.

Risk categories are a way to systematically identify risks and provide a foundation for understanding. When identifying risks, the use of risk categories helps improve the process by giving everyone involved a common language for describing risk. Hence, a comparison of these documents with regard to Indian context will provide a pool of knowledge as to which contract models are effective in allotting the risks. This will be useful to control the cost of the project, at the tendering stage itself by choosing specific models of risk allocation.

II. LITERATURE REVIEW

According to CIDC (Anon 2014), Indian construction industry has a market worth up to 3, 00,000 crores. The participants in this industry are always haunted with fear of risk, either real or perceived. The term risk occurs in all the contract documents over the world. It implies that the issue is a universal one. Various risks involved in the construction sector are categorized later in the literature review. These risks affect the costs of the projects. Most of the contracts will contain clauses set for conditions where risks will occur, how the risk is to be evaluated or allotted to different parties in the contract. In reality, it is very unlikely that all the risks assumed in the contract will ever occur. But the perceived cost involved if such risk event occurs is very high. Hence, to be on the safe side, risk costs are also added to the contract amount.

Before going into the details of the risk and its management, it is better to understand where risk arises in the construction and why claims occur, which can be related to the risks in the projects. Risks occur in the everyday

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activities which are needed for the completion of the project. For every project, the contract documents will be documented and maintained till the life of the project completion. The main agreement between contractor and owner will have division of responsibilities and risks they have to share between each other. That document which has these details is called general conditions of contract. This document can be easily standardized, taking into account the different responsibilities and risks faced commonly by most of the construction projects. Additionally, the general conditions can be tailored for the project at hand using particular conditions. FIDIC, American Institute of Architects, USA, Joint Contracts Tribunal, UK; Institute of Civil Engineers, UK are some of the popular institutions which framed general conditions with their own perspective on construction.

Different procurement methods exist because each has its own competences and limitations. Limitations of current procurement routes (Larmour 2011) are categorized into three types – Demand issues (Low and discontinuous demand, Frequent changes in specifications, Inappropriate selection criteria, Inappropriate risk allocation); Supply issues (Poor quality, Inefficient methods of construction, Poor public image); and Common issues (Poor management, Inadequate investment, Adversarial culture, Fragmented industry structure). Also, from the client's perspective, the procurement routes opted by them are based on key aspects like knowledge of the process of construction, risk management strategy and market influence. Out of all these issues, risk management strategy requires a complete management process strategy.

Clauses in the general conditions documents in Indian contract documents (Patil 2006) usually are:

1. Definitions of terms used
2. Security deposit
3. Planning and scheduling of the project
4. General obligations of the parties to the contract
5. Materials, plant and workmanship
6. Suspension
7. Time for completion, delay
8. Liquidated damages and bonus
9. Measurement of bills and issue of interim payments
10. Variations, additions and alterations
11. Defects, improper work, substandard material, etc.
12. Subletting
13. Breach of contract
14. Settlement of final accounts
15. Procedure for claims
16. Arbitration

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III. METHODOLOGY

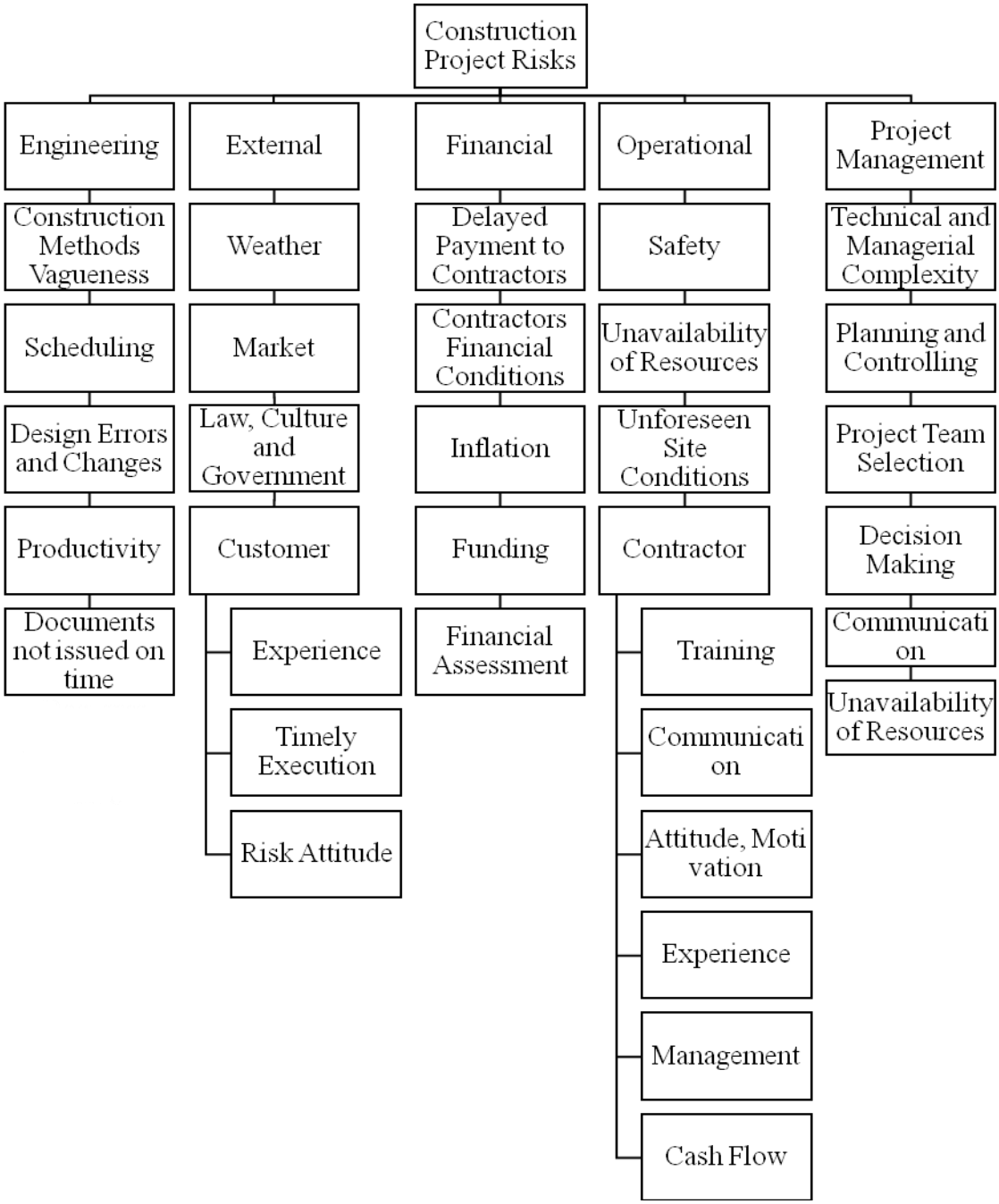

Figure 3.1 Classification of Construction Risks (Rezakhani, 2012)

Following the methodology, contract documents of an international standard document FIDIC, a national standard document CPWD and private construction contract document were sourced. These documents were given code as FIDIC, CPWD and SKS. Whenever there is a discussion of a particular document comes, it will be named with the

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above codes alone to reduce confusion. Following the classification of risks encountered in construction from the literature review, key risk factors were given below, with a detailed description.

Table 0.1 Description of key risks selected

Risk categories	Description
Engineering risks	All the risks which occur due to the errors while interpreting the meaning from paper to real life product are grouped into this head. These are very common risks as the words intended for one purpose can and often will be misunderstood due to lack of technical expertise, difference in culture, difference in mother tongue and translations which do not necessarily meet the exact meaning intended. Errors in contract documents often cause a lot of trouble due to the differences in interpretation of the document.
Construction methods vagueness	The specifications provided with the contract give the contractor a specific methodology to follow while achieving a particular work if it is project specific and not the usual kind of work a mason does with his experience alone. Simpler things like laying a wall or a slab can be opt out of the specifications since any experienced labor will take care of the work without instructions. These instructions in the specifications are mostly simplified so that even a layman can understand them and follow. But as the complexity of the project increases, so does the technical jargon in the specifications. This may lead to misunderstanding the processes and doing the job imperfectly
Scheduling	Any project to be built will need a program which shall have approximate date of start and completion with all the important details of resource flow filled in. These program or schedules will often prove difficult to follow. They may cause confusion among the stakeholders and the project participants about the progress and their role in the progress. Daily updating and monthly progress checks are needed to keep the schedule changes in check.
Design errors and changes	Designs once drawn are never final. Sometimes, the complete designs have to be changed after finding errors in the preliminary designs. Precision is also an issue. Errors in the design found out after starting the construction will delay the progress as the designers need to update their designs. The field conditions will not be exactly as expected and the Architects/design engineers need to check the field conditions continuously and provide alternative design when required. All these changes will affect the project progress
Productivity	References define productivity as the effectiveness of productive effort, especially in industry, as measured in terms of the rate of output per unit of input.

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	All the resources input for the projects have to be converted into the desired outcome with the effort of labor, machinery and management. Any risks which affect the efficiency of the labor, management and machinery will be grouped under this head.
Documents not issued on time	Due to inefficiency or other reasons, the documents related to project may not be released in time to effectively carryout the project work. Then, the schedules will be upset and the costs will rise without any real work done.
External risks	Risks which are caused by external agents on the construction are grouped into this type. Some are unpredictable risks and some are predictable. For simplification, both the types are grouped in it.
Weather	Bad weather is a major deterrent in all constructions. Inhospitable weather conditions affect the health of the workers and the quality of the construction. Most of the schedule changes occur due to sudden changes in weather conditions and prolonged bad weather conditions.
Market	Demand/Willingness of buyers to honor purchase agreements, End value of the project in the market determines the actual value of the project after the whole effort. These things are not in control of anyone and so mitigating them is highly unlikely.
Law	All the legal troubles involved in a project are brought under this subhead. Legal problems arise when the project participants place claims among themselves over the clauses of a contract. Also, intellectual property and licensed material being used in the project will invoke legal troubles if not handled properly.
Culture	Culture of the local residents and workers towards the project and in general are important to have a smooth flow of work. Also, if the cultural background of owner and contractor differs, the basic understanding and formalities included with the Contract shall be of greater importance and respect.
Government	Approvals from various departments of the local, state and central departments for a construction project are necessary to legally construct a project in India. Due to red-tapism and other reasons, the grant of approvals is delayed for many projects and this delays the program of the project. Further, the changes in currency value, inflation, taxation and the policies of the government causes a lot of risks in the project. With the democratic system in India, Elections are quite common in any place for every 4 or 5 years. Along with change in government, policies also change causing troubles to long term projects.
Customer - Experience, timely decision, risk	Owner is the generally the customer of the project. His experience in handling the projects helps a lot in the currency of the project. With his experience, the customer can

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attitude	make resources available for the project at the right moment or supply the resources whenever needed by the contractor. Also, his risk attitude plays an important role in the project. If the owner is ready to share his rightful share of risks, then the contractors can carry on with their works without much stress and costs.
Financial risks	Flow of money is critical for a contractor to be in the business and carry on with the project successfully. Risks relating to financial issues faced by the stakeholders in the project of the project are grouped into this head. Most of these risks affect the funds available for a project and affect the resources availability.
Delayed payments to contractors	Any participant involved in a project cannot and will not provide for all the costs before the start of the project. First, it is the turn of the contractor to secure advances, arrange for men and machinery, and show some progress of the work. Then, it is the responsibility of the owner to pay for the work completed on recommendation by the Engineer. Any delay to pay the contractor effects his ability to continue the project further, since all the funds of the contractor are used up for the progress done.
Contractor's financial conditions	Contractors who take up projects exceeding their ability will have negative effects on their financial conditions. If their financial conditions degrade much further due to delayed payments, then the financing corporations may decline to provide advances for their projects. Due to unexpected risks like force majeure, a lot of contracting corporations have died due to their financial conditions not supporting them after the risks.
Inflation	Rises in the prices of resources like POL, cement, sand, aggregates which constitute the building blocks of any project will increase the project costs enormously. Hence, all contracts now include a clause for taking care of the rising prices due to inflation.
Funding	Funding for smaller project is done by the owner alone, for normal projects by the owner, securing loans from financial institutions and for larger projects, it is done by a group of financial institutions forming a joint venture. Securing the right funding source is of utmost importance in any project. With the funds constantly flowing, all the resources can be arranged on time.
Financial assessment	Financial assessment of any project is done intermittently by the funding institutions to evaluate the progress of the work and the return they achieved with the funds they provided. It is to make sure their funds are being satisfactorily used. Otherwise, the projects will be a waste for their money, which can be focused on much profitable ventures.

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Operational risks	Risks which are faced at the ground level of the project are grouped into this type. These risks directly affect the progress of the project on a day-to-day basis. Hence, care must be taken in these dealing with these risks. Most of these risks are to be faced by the contractor and his personnel.
Safety	Safety of the stakeholders and safety of the project together are placed in this subhead. Stakeholders in the site – labor, personnel working in the field to create the project are to be kept away from accidents, provided with health protection systems and livable atmosphere. Machinery provided by the owner and brought by the contractor on to the site are considered property of the project and to be kept safe at all times. The works which are completed and which are in progress are also to be kept safe from weather, external elements, and unforeseen site conditions. All the raw materials are to be kept safe from bad weather and other conditions which render them useless. Contractor who holds the site has the need to protect all these elements of the project.
Unavailability of resources	Resources necessary for a project completion are not just the raw materials used in the project and other supplements, but also the resources providing for the living of labor. Water and electricity, Raw materials, Supplementary items, specialized tools and machinery for specific works are to be provided by the owner and contractor together.
Unforeseen site conditions	The construction site is the actual place where all the action takes place. The site conditions will never be the same at any two instants of time during the whole of the project. Any unforeseen thing may cause an accident, issue, delay, confusion, design change, reduced productivity, and reduce quality, deviate from scope and so on. These innumerable risks which arise from the site can never be foreseen in total. Only a discussed sharing of the risks based on their classification can provide for proper risk management.
Contractor – Experience, Management, Cash flow, Training, Communication, Attitude and motivation	The person or company or group of companies which take up the job of arranging for the completion of the project is called contractor. An experienced contractor manages his projects efficiently. The cash flow management of a contractor defines his career in the contracting field. Further, He needs to train all his subordinates and employees of the technical and managerial issues faced in the field. Communication is an important aspect of the project progress as it avoids duplication and confusion. Also, the attitude of a contractor with other stakeholders and motivation for him to complete the project in set standards define the outcome to a large extent. In short, the project comes to life

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	based on contractor selected.
Project Management risks	Proper planning and management leads to control of these risks. These are faced by the mid-level management working with the labor in the field. The project heads that do all the planning in the initial stages will be notified of these risks as they occur so they can update their knowledge for their future projects.
Technical & managerial complexity	Newer technologies which increase the complexity of design and which make parts of the project obsolete, complex decisions which need to be taken in controlling the changes in technology and management of the project effect the project negatively. Increased complexity at each level needs more people who can understand and execute the project with care.
Planning & controlling	Planning for the project progress and controlling the resources as the project progresses is a main focus for the contractors. Controlling of the labor and resources needs personnel and managers for the personnel. All the risks faced by the contractor while controlling the labor are placed under this subhead.
Project team selection	Project team involved in a project must have experienced people who know the complexities involved in similar projects. Also, the team members must be responsible for their actions.
Decision making	Decision making by all the stake holders at the right moment increases the project success. But in most cases delays occur due to indecisiveness which leads to inaction. Lack of decision making causes many accidents in the field.
Communication	Communication among all the stake holders is as much important as communication by the contractor to others. This provides clarity among all of them and provides for the lack of their presence in the field. Lack of communication causes inefficient progress of the project, duplication of efforts, accidents and wastage of resources.
Unavailability of resources	Unavailability of resources under project management head is related to availability of resources at the planning and managerial level. Unavailability of labor is a main concern growing in all nations. Without labor, any type of undertaking will be hopeless. Also, lack of data regarding the field conditions comes under this subhead.

After categorizing all the risks, analysis of these risks has been done. The following four steps detail what procedures are followed to analyze the risks in the current research:

1. Comparison of count – Number of clauses in each type of risk will be enumerated. Numbers will provide a visual representation of risks shared in the documents. Then the contracts will be compared in each category.
2. Comparison of clause content – Content in each clause which relates to the category head in each contract will

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be listed. Then, the clauses which are specially proposed in one particular contract will be listed out. This will enable us to appreciate the individual character of each contract.

3. Comparison of risk allocation – If the risk allocation is common for two or more documents, then it must be a common risk in most scenarios. Whenever such clauses come forth and differ in two documents, the change between two documents will be compared, proposing the important point for further discussion.
4. Alternative Dispute Resolution methods and related clauses provided in the documents will be listed and compared.

IV.ANALYSIS

In this section, analysis of the contract according to the procedure specified will be carried out step by step and the results of each analysis will be presented at the site.

Step 1: Comparison of Count – Number of clauses in each type of risk will be enumerated. Numbers will provide a visual representation of risks shared in the documents. Then the contracts will be compared in each category.

4.1 Engineering risks

Table 4.1 Engineering risks

Engineering risks					
Contract	**Total**	**Contractor**	**Owner**	**Shared**	*Notes:*
FIDIC	6	2	3	1	*As can be observed form the above picture, FIDIC and SKS have similar number of engineering risks, but the contractor's share is more in SKS document. No risk is shared between both parties in SKS document.*
SKS	7	6	1	0	
CPWD	4	3	0	1	

Figure4.2 Engineering Risks

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4.2 External risks

Table 4.2 External risks

External risks					
Contract	**Total**	**Contractor**	**Owner**	**Shared**	Notes:
FIDIC	16	1	14	1	External risks were mostly borne by owner in FIDIC document. But not so much in other two documents. Even the discussion of external risks is limited in these two documents. Mostly, the number in FIDIC is more because the external risks which might occur are placed in number of clauses, separating them and simplifying the risks for easier understanding
SKS	6	4	1	1	
CPWD	8	6	1	1	

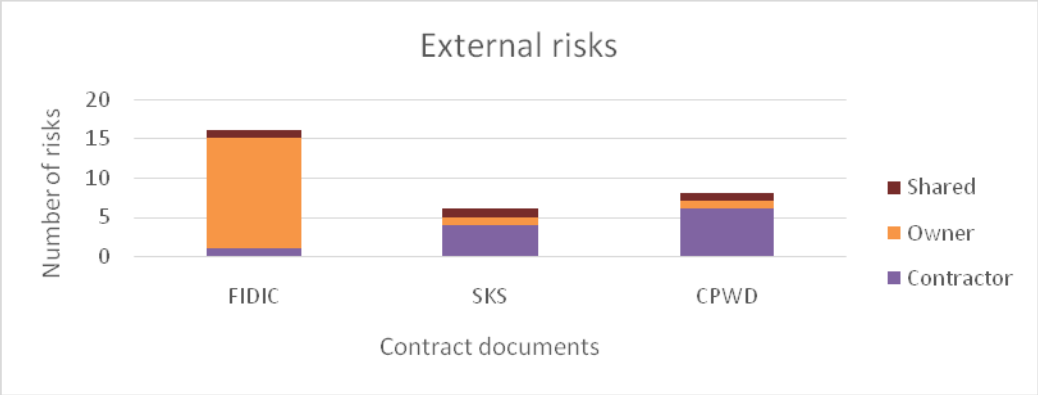

Figure 4.3 External risks

4.3 Financial risks

Table 4.3Financial risks

Financial risks					
Contract	**Total**	**Contractor**	**Owner**	**Shared**	Notes:- Financial risks were placed more on the contractor in CPWD document and none of the risks were shared. Compared to that,
FIDIC	6	1	3	2	
SKS	8	5	2	1	

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CPWD	9	8	1	0	FIDIC document has more number of owner borne and shared risks. SKS document reaches a balance from both the documents. It is an important point to reduce the financial risk on contractor to control the tender costs. But CPWD document shows no sign of control in financial risk, which might cause contractors to bid higher amounts for work.

Figure4.4 Financial risks

4.4 Operational risks

Table 4.4 Operational risks

Operational risks					
Contract	**Total**	**Contractor**	**Owner**	**Shared**	Notes:
FIDIC	19	11	8	0	Operational risks are most discussed in all the contract documents. FIDIC has equal number of risks on owner and contractor making them more liable to the project. But, CPWD pushes all the risks to contractor forcing him to work much harder in ever changing environment to keep control. Only SKS document had some risks shared between both parties showing it is better than the other two in risk allocations.
SKS	28	20	3	5	
CPWD	32	30	2	0	

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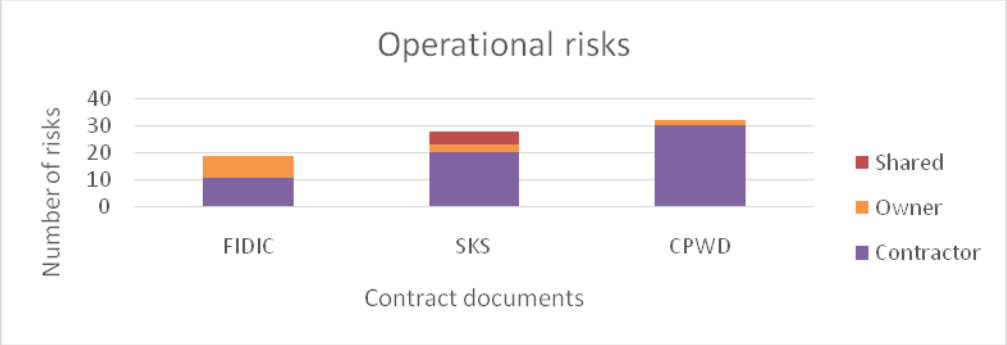

Figure 4.5 Operational risks

4.5 Project management risks

Table4.5 Project management risks

Project management risks					
Contract	**Total**	**Contractor**	**Owner**	**Shared**	Notes:
FIDIC	6	4	2	0	Project management risks are usually borne by contractor and none of the contracts have shared risks in this category. It is because project management work mostly comprises of planning and communication, which are the responsibilities of contractor in any project.
SKS	6	5	1	0	
CPWD	12	11	1	0	

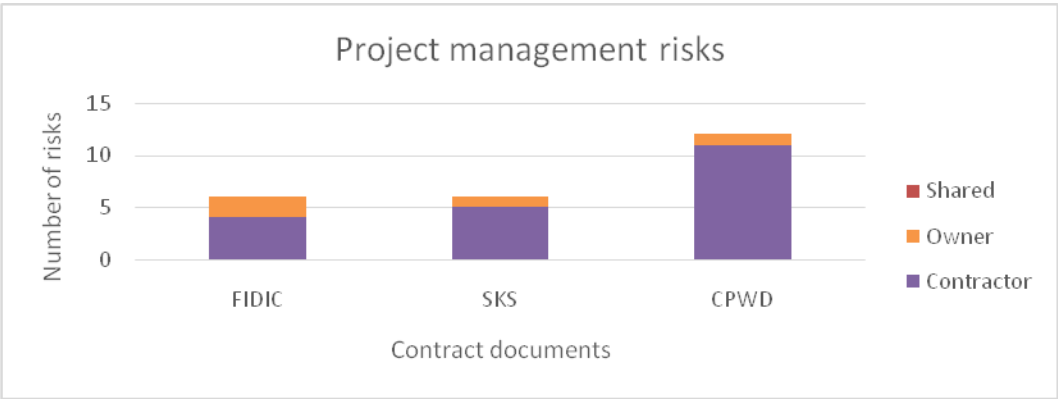

Figure 4.6 Project management risks

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V. RESULTS

This chapter provides the details of all the results obtained from the discussions in the analysis stage. Notes at the end of each section in the analysis are used to reach these results. Conclusions are then reached with the help of these results. Results will be specified step by step in the same order as done in the chapter of analysis.

Step 1: Engineering risks - Contractor's share is more in SKS document. No risk is shared between both parties in SKS document

External risks - Mostly borne by owner in FIDIC document. Even the discussion of external risks is limited in these two documents.

Financial risks - More on the contractor in CPWD document and none of the risks were shared. FIDIC document has more number of owner borne and shared risks. SKS document reaches a balance from both the documents.

Operational risks - CPWD pushes all the risks to contractor forcing him to work much harder in ever changing environment to keep control. Only SKS document had some risks shared between both parties showing it is better than the other two in risk allocations.

Project management risks - borne by contractor

Number of risks a contract document has in each category is observed and in most of the cases, SKS document came better than other two documents in allocating risks to particular risk category. Though in case of external risks, FIDIC is better at allocating them to owner, who is more capable of handling them.

Step 2: Though all the risks deals in this step are particular risks for each of the contract documents, only the significant risks can be brought for closer scrutiny. Unsatisfactory decisions given by the Engineer and related risks are dealt in SKS document. CPWD discusses the risks in wrong tendering. CPWD discusses about the risks when contractor winds up and the additional payments to be allotted for works done. The additional payments clause causes a lot of claims to arise for reasons beyond control of both parties. FIDIC discusses about the responsibility of contractor to keep his personnel in nice behavior, Rejection and retesting of the materials and works on the site.SKS deals with improper site conditions and care of works throughout the project in a specific clause.

Only CPWD document discusses the non-availability of personnel and labor for the progress of work. This is a very real and rising issue upon which all contract documents must have a look upon. Also, it discusses about the compensations without reference to actual loss, internal restructuring of contractor, unauthorized occupation of works, and death of principal contractor which are not exactly comparable risks, but appreciably creative from other documents. Thinking creative while drawing the clauses is as important as thinking about possible risks and preparing the owner for such conditions through information and preparation of the owner.

Step 3: Clauses which are common in two or all three documents are compared for risk allocations in each category, in this step. All the shortcomings of each document will be visible in this step. CPWD does not have clauses relating to liquidated damages and errors in drawings. These clauses are very much important as they are important causes of claims in construction field. Also, CPWD does not have a clause regarding handling of fossils

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found at the site. Infringements occurring in the site were allocated to contractor alone, but there may be cases where the design and contract needs such infringement to happen. This was not at all an issue in CPWD document. Interim payments were also not discussed in good measure in CPWD document. Only SKS document discusses about the damage of works due to force majeure and subsequent risks. Maintenance of safety provisions were not discussed in the SKS general conditions but were added into special conditions of contract. This proves the idea that the private parties in the country are aware of their responsibilities and can take the necessary action to provide for the unforeseen risks. CPWD doesn't even have provisions regarding Environmental problems, due to the works. This can be easily transferred to contractor who takes care of the works at all times. Even the damage to public properties was not discussed in CPWD document.

Step 4:FIDIC document has the correct procedures laid down for the use of contractor and owner in case claims arise. Also, the process is as transparent and simple as possible. Hence in this case, FIDIC is absolutely better than other two documents.

VI. CONCLUSIONS

On the whole, SKS document which is the agreement of private contractor and private builder in the country has very good prospect in allocating the risks to various categories of risks.

1. FIDIC document is better than other two documents is covering all the topics of risks and allocating them logically. Further, it has very specific guidelines for alternative dispute resolution mechanisms and simple verbal language.

2. CPWD document came last in most of the aspects of the research. It was very heavy in using verbal language for explaining every nook and cranny clause of the contract. It tabulated some creative risks which might occur and related allocations. But, it was not in line with the stream of world regarding environmental pollution, simpler ADR methods, infringements and fossils handling. Being a standard document in India, if CPWD document has to be much simpler in language and easier for use.

3. It may also be argued that CPWD is a contract that is maintained by a public government and so, it has some different powers and more accurate descriptions to cater its needs. In the search for a better universal contract document, CPWD document may not be much suitable but SKS and FIDIC will be definitely on the list.

6.1 scope for further work

For the current project, one international standard document, one national standard document and one general document used by a private company are collected and compared. To further create a baseline of risk allocations, many other contract documents can be used. Contract documents by American Institute of Architects, USA; Federation of Master Builders, USA; Joint Contracts Tribunal, UK; ICE Contract documents, UK which are popular around the world can be used. In particular, Contract document by Federation of Master Builders is certified by plain English campaign. This document will have clauses and instructions in plain language used by general

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populace compared to other documents which have technical and legal lingo. Also, JCT and AIA contract documents provide help for the users with online forms which simplify choosing the required contract route.

Within the country, it is advised to compare the standard documents of other government agencies which have regular construction work and those that developed their own contractual arrangements.

Also general contract documents can be procured from the local constructors and public authorities.

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