

SUITABILITY OF ALTERNATIVE DISPUTE RESOLUTION METHODS BASED ON RISK FACTORS TO THE SRI LANKAN CONSTRUCTION INDUSTRY

HAPUARACHCHI.H. N.M^{1*} & UDAYANGANI. K²

^{1,2}Department of Building Economics, University of Moratuwa, Sri Lanka

¹nimeshamadushani66@gmail.com, ²ukulatunga@uom.lk

Abstract: Disputes in construction projects always used to resolve in litigation, where nowadays parties use new innovative dispute resolution methods known as Alternative Dispute Resolution(ADR)s. Many ADR-related studies in the local context are relevant to its applicability, enforceability, and effectiveness, whereas less studies exist on the choice of ADR method(s). Further, the literature proves risk in construction projects can be used as a criterion to select ADR methods, where studies are very less. Followingly, this study focused on developing a matrix based on risk factors in the construction industry for the choice of ADR method(s) under mixed research approach. The literature survey explored ADR method(s) and risk factors. Expert interviews were executed with five experts to filter the risk factors under the choice of ADR method(s) where 10 out of 15 risk factors were chosen as applicable for the study. Then, a structured questionnaire was designed with expert interview findings and distributed among 40 experts, where 34 responses were received. The responses were analyzed through Relative Importance Index technique. Thus, ADR methods were ranked against risk factors based on RII values and developed the matrix. The result proves negotiation is the best ADR method where conciliation, mediation, dispute adjudication and arbitration are suitable respectively.

Keywords: *Alternative Dispute Resolution; Risk Factors; Construction Industry*

1. Introduction

Disputes within the construction industry seem to be very common that could lead various issues including delays in project delivery, increasing project cost, loss of profit, reduction in productivity, and damage to business relationships (Jaffar, Tharim, & Shuib, 2011; San-Cristóbal, Carral, Diaz, Fraguera, & Iglesias, 2018). The level of such disputes is identified as more serious (Lee et al., 2017) where most of them require years to get settled (Cheung & Li, 2019; Lu, Li, & Wang, 2017). Although construction stakeholders used to go to courts for resolving such disputes in early times, a large amount of time and the cost incurred during the litigation have directed them to new innovative dispute resolution methods which are popular as Alternative Dispute Resolution (ADR) methods (Chaphalkar & Patil, 2012; Harmon, 2003).

Alternative Dispute Resolution (ADR) methods commonly define alternatives to the traditional court system includes facilitation, negotiation, conciliation, mediation, adjudication, arbitration and hybrid models such as Mediation-Arbitration (Cunningham-Hill & Elder, 2017; Ranasinghe & Korale, 2011). It is important to recognize and appreciate different types of ADR methods and how those can be prepared for the best (Schooler, 2007). Therefore, as Kirimi and Wanjohi (2019) highlighted, the selection and application of an ADR method to a dispute should be done intentionally for successful project delivery.

Many researchers, Cheung, Suen, and Lam (2002), Chong and Mohamad-Zin (2012), Ilter and Dikbas (2008), She (2011), and Illankoon, Tam, and Ranadewa (2019) have focused on ADR selection factors concerning features embedded in ADR methods in the global and local context. However, highlighting a new research area, a study is being conducted for international construction projects by Gad, Kalidindi, Shane, and Strong (2011) resulting project risks have an impact on the choice of ADR methods. Further to Gad et al. (2011), not all the risk factors in construction projects have an impact on the choice of ADR methods.

Risk is a common and an important phenomenon in construction industry. The Project Management Institute (PMI) has defined risk in the terms of “an uncertain event or condition that, if it occurs, has a positive or negative effect on a project’s objectives” (Project Management Institute, 2013, p. 559). Since, a greater number of risks are associated with construction projects (Khattak et al., 2019), the identification of risks has identified as one of the most

*Corresponding author: Tel: +94 716315891 Email Address: nimeshamadushani66@gmail.com

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crucial and important areas in decision-making in the construction industry (Khattak et al., 2019). Thus, its beneficial to look into risk factors in construction industry to make decisions on choosing the most suitable ADR method(s).

Excessive variations, lack of communication and weak relationships, scheduled delays, cost overruns, technical risks, inconsistencies in the country's policies, law and regulation changes and inflation are being identified as very common project risk factors in construction projects (Brett, 2000; Eybpoosh, Dikmen, & Birgonul, 2011). In the study of Gad et al. (2011), projects risks related to international construction projects have focused on the perspective of choosing the best ADR method(s). Although the study of Gad et al. (2011) seems to be effective and useful to choose an efficient ADR method in construction projects, the results of that study cannot be applied to Sri Lankan construction projects since the risk factors are being analyzed by the researcher based on characteristics of international construction projects. Therefore, this paper focused to conduct a similar study, choice of an ADR method based on risk factors considering the characteristics of Sri-Lankan construction projects.

2. Research Problem

Formation of disputes is a common problem in the construction industry (Illankoon et al., 2019). Rubin and Quintas (2003) stated that characteristics embedded with each ADR method creates an attractive way to settle the complex and time sensitive disputes. Because of that, ADR has become more popular in modern era in resolving disputes and is spreading fast globally (Cheung et al., 2002). According to Keršulienė, Zavadskas, and Turskis (2010), still it is questionable that which ADR methods will be best suited for the dispute resolution. Illankoon et al. (2019) have confirmed that most of the research studies done in Sri Lanka on ADR relate to its applicability, enforceability, and effectiveness. Thus, the researchers have proven that there is lack of studies on the choice of an ADR method relevant to the local construction industry. Further, the literature proves that there are fewer studies available that discuss ADR methods together with risk factors. The study of Gad et al. (2011) highlights existing literature has not addressed the choice of dispute resolution methods based on risk factors in international projects and observed that research gap. Since the study of Gad et al. (2011) is limited to international projects, the research result is not suitable to apply to Sri Lankan construction projects. Thereby, this paper will be aimed to develop a matrix for the choice of ADR method(s) based on risk factors of construction projects for successful dispute resolution in local context.

3. Literature Review

3.1 INTRODUCTION TO ADR

Disputes are very common in the construction industry (Deif & Abdlrashid, 2017). As the name suggests, disputes arise due to disagreement between the contracting parties. Once there is a disagreement, the contracting parties work on resolving the dispute based on the contract conditions (Illankoon et al., 2019). The Employer and contractor face many difficulties in resolving disputes within the construction industry (Nihaaj, 2016). However, if the parties were still unable to reach an arrangement, the matter would escalate to ADR. Litigation is the final step toward settling construction disputes where ADR is meant to resolve disputes without resorting to the court system (Mulolo & Mwakali, 2015) which has a voluntary approach (Jayasena & Kavinda, 2011).

3.2 TYPES OF ADR IN CONSTRUCTION INDUSTRY

Available ADR methods range from negotiation to arbitration involving facilitation, conciliation, mini-trial and mediation. However, according to Nihaaj (2016), the most popular among the different variants of ADR are negotiation, mediation, conciliation, adjudication and arbitration. These common ADR methods present in construction industry is discussed below.

Negotiation

Negotiation is a non-binding universal procedure in which two or more participants try to reach a joint decision on matters of common concern when they are in real or potential conflict or disagreement (Deif & Abdlrashid, 2017). Negotiation tends to be an informal universal process and doesn't require a neutral third party (Alaloul, Hasaniyah, & Tayeh, 2018).

Mediation

Mediation is known to be more organized, informal than adjudication and arbitration, non-binding negotiation and is thought to be ADR's most effective process which is used when negotiation is unsuccessful (Zimmer, 2011). Further to the authors, the negotiation process is directed by a neutral and objective third-party expert, known as the mediator, who listens to all parties to the conflict and encourages negotiations between the parties (Fenn, 2011; Barough, Shoubi, & Preece, 2013). The mediator typically begins the process in the same room with both parties and will often split them into different rooms to have private talks or with each of them without records or transcripts (Deif & Abdlrashid, 2017). This can be done in a few days, it is not binding, and the mediator has no authority to decide, he simply supports the parties in finding an agreement by clarifying the challenges using a range of skills and strategies to resolve and provide some advice to overcome them (Illankoon et al., 2019; Harmon, 2003).

Conciliation

Conciliation is also one of the ADR methods in which the parties to a conflict using a neutral third party (a conciliator), negotiate with the disputants separately in an attempt to develop a common understanding of the root causes of the conflict and thus facilitate resolution in a peaceful and antagonistic manner (Animashaun & Odeku, 2014).

Adjudication

According to Jayasinghe & Ramachandra (2016), an alternative to arbitration is the use of an adjudication which may be regarded as certain features and benefits, that is, a decision that may be "temporary binding" and which allows for the speedy determination introduced in the construction sector. This Adjudication process is carried out by an impartial individual called an adjudicator chose in a contract by the parties (Ranasinghe & Korale, 2011). An adjudicator is not necessary to be a lawyer and must give a decision on the disputed matters referred to him by the complainant before the dispute is eventually resolved (Deif & Abdlrashid, 2017). Nihaaj (2016) mentioned, that at commencement of the contract, parties agree to the appointment of an adjudicator known as the Dispute Adjudication Board (DAB) or as sole adjudicator who is required to act as impartial expert.

Arbitration

In arbitration, opposing parties submit their dispute or disagreement for binding arbitration by one or more third parties as impartial in order to resolve conflicts and to make a final decision which is followed by law (Illankoon et al., 2019). The disputants do need to consent to be bound by the arbitrator's judgment, which is definitive and implemented by law after each side has heard facts and arguments (Suherman, 2019). Being an arbitrator needs a particular and more comprehensive training and much more experience in the matter of disputes (Zimmer, 2011). The arbitration agreement and the reasoning for the decision are voluntary, the arbitrator's decision is binding in the sense that it will be enforced by the courts against a reticent party (Animashaun & Odeku, 2014). Arbitration is more formal than adjudication in procedural terms (Deif & Abalrashid, 2017; Suherman, 2019).

Mediation-Arbitration

Mediation-Arbitration is also one of the ADR methods under the hybrid or mixed ADR approach where the role of the neutral is to play the role of a mediator and then play the role of an arbitrator (Barsky, 2013; Drummond, 2006). Mediation-Arbitration is an example of multi-step ADR, the parties decide to mediate their conflict on the basis that any issues not resolved through mediation will be resolved through arbitration, using the same person to serve as mediator and arbitrator (Blankley, 2011).

3.3 ADR IN SRI LANKAN CONSTRUCTION INDUSTRY

The construction industry in Sri Lanka consists of a complex and comprehensive field of activities (Abeynayake & Weddikara, 2013). The complexity embedded in construction activities has led to arise different types of disputes. Therefore, parties to disputes always seek resolution methods. Commonly accepted ADR methods in the Sri Lankan construction industry can be identified by observing the studies conducted in Sri Lanka. Accordingly, negotiation, mediation, conciliation, adjudication and arbitration can be highlighted as commonly use ADR methods within Sri Lanka (Abeynayake & Weddikara, 2013; Jayasena & Kavinda, 2011; Jayasinghe & Ramachandra, 2016; Ranasinghe & Korale, 2011).

Table 1, Analysis of ADR methods on its characteristics in Sri Lankan context (Abeynayake, 2014)

Critical factors of ADR methods based on characteristics	Ranking of the ADR methods based on RII value				
	1	2	3	4	5
Time duration	Negotiation	Adjudication	Arbitration	Mediation	Conciliation
The cost involved in the process	Negotiation	Mediation	Adjudication	Arbitration	Conciliation
The party autonomy	Arbitration	Adjudication	Negotiation	Mediation	Conciliation
Preservation of relationships	Negotiation	Mediation	Arbitration	Adjudication	Conciliation
Flexibility	Negotiation	Mediation	Adjudication	Arbitration	Conciliation
Confidentiality	Arbitration	Adjudication	Negotiation	Mediation	Conciliation
Enforceability	Arbitration	Adjudication	Mediation	Negotiation	Conciliation
Fair decision	Adjudication	Arbitration	Negotiation	Mediation	Conciliation
Creative remedy	Mediation	Arbitration	Negotiation	Adjudication	Conciliation
Bindingness	Arbitration	Adjudication	Mediation	Negotiation	Conciliation
Expert involvement	Arbitration	Adjudication	Negotiation	Mediation	Conciliation

The study of Jayasena and Kavinda (2011) proves out of the available ADR method, negotiation is the preferred choice of dispute resolution in the Sri Lankan construction industry. Abeynayake (2014) has identified critical factors affecting on ADR process based on characteristics embedded in ADR methods using Delphi technique. Further a

critical analysis is being carried out on each factor among the five ADR methods in Sri Lankan construction industry and ranked those ADR methods using RII values. The findings of that study are summarized in Table 1. Since the aim of this study can be achieved by a comprehensive analysis of risk factors in the construction industry with their relationship among the afore highlighted ADR characteristics in construction projects in Sri Lanka, the results in Table 1 is considered in research design of this study.

3.4 RISK AND RISK FACTORS IN CONSTRUCTION PROJECTS

Risk is being defined as the probability of a damaging event happening in the project which can affect project objectives (Yu, 2002). According to Dziadosz and Rejment (2015), the risk is a measurable part of uncertainty that allows to calculate the size of the damage and the probability of occurring the risk event. The Table 2 looks into risk factors in construction projects in Employer’s and Contractor’s perspective to analyze them together with ADR method(s). It can be noted that, after the Source 10 (S10), none of the new risk factors have been collected. Thus, above 15 risk factors have become constant marking the data redundancy point in terms of risk factors in construction projects from the viewpoint of the Employer and the Contractor. The aforementioned risk factors are taken to design the expert interview guideline to filter risk factors that have impact to the choice of ADR method(s) to the construction industry of Sri Lanka. With the available literature findings, the data collection and data analysis stage was commenced. The findings are discussed henceforth.

Table 2, Risk factors in construction projects

No	Sources Risk factors in construction projects	Chang, Hwang, Deng, and Zhao (2018)	Goh, Abdul-Rahman, and Abdul-Samad (2013)	Zavadskas et al. (2010)	Banaitiene & Banaitis, 2012	Dey (2002).	S. Mishra and Mishra (2016)	Eyboosh, Dikmen, and Birgonul, (2011)	Wang, Liu, and Chou (2006)	Wu, Nisar, Kapletia, and Prabhakar (2017)	Mulolo, Alinaitwe, and Mwakali (2015)	N.A. Kartam and Kartam (2001)	Mhatre, Thakkar, and Maiti (2017)	Gad et al. (2011)
		S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13
1	Cost risk; construction cost overruns, financial failures, delayed payments	x		x	x			x		x	x			x
2	Defective work	x		x				x				x	x	x
3	Technological risk; Technology changes	x		x	x	x	x	x			x			x
4	Changes in Laws and local standards, political risks	x		x	x			x		x	x			x
5	Time risk; scheduled delays		x	x				x			x			x
6	Lack of availability of resources		x	x			x	x		x		x	x	
7	Lack of communication and team collaboration		x	x	x		x	x		x	x	x		x
8	Variations; Scope and design changes		x	x	x	x	x		x	x	x			x
9	Environmental risks; weather and climatic issues, unknown geological and site conditions		x	x	x	x	x	x				x		x
10	Economic changes; Inflation, tax			x	x			x		x	x	x		x
11	Documents and information risk			x	x			x						
12	Legal risks; Excessive procedures for statutory clearances and approvals					x	x			x	x			x
13	Lack of experience and skills							x				x		
14	Accidents at site								x	x		x	x	
15	Social risks; language barriers, various cultures										x			x

4. Methodology

The research begun with a comprehensive literature. According to the aim of the study, it was required to have an in-depth investigation to filter the risk factors based on the criteria which have an impact on the choice of ADR methods in the Sri Lankan context. Therefore, the qualitative research approach was chosen as it provides a valid basis for theoretical ideas (Harrison, Lin, Carrol, & Carley, 2007) and helps to assess the concepts and opinions (Braun & Clarke, 2006). In order to prepare the matrix for the choice of ADR based on project risk factors, it was required to rank the ADR method(s). As the opinion of a higher population provides high reliability and validity for data (Heale & Twycross, 2015), it is evident that the quantitative approach was more suitable. Thus, the mixed research approach is selected as the most appropriate research design for this study.

The research strategy of this study is adopted under two stages, Expert interviews were conducted at the first stage and a comprehensive questionnaire survey was conducted under second stage. Both strategies followed the purposive sampling method to come up with a more precise and reliable data. The expert interviews were conducted with five experts who are having more than 10 years of experience in the use of ADR methods as well as risk management in construction projects in Sri Lanka. The expert interview respondent's details are shown in Table 3. The expert interview guideline was developed in two parts to gather expert knowledge. Accordingly, Part 01 focuses to filter the risk factors for the choice of an ADR method in the Sri Lankan context, where part 02 focuses characteristics of ADR methods that are to be focused when addressing each risk factor.

Table 3: Expert interview respondent's details

Respondent	Respondent 1	Respondent 2	Respondent 3	Respondent 4	Respondent 5
Designation	Senior Quantity Surveyor	Contracts Manager	Contract/ Claims Consultant	Quantity Surveyor/ arbitrator	Contract Administrator
Years of experience	27 years	16 years	23 years	17 years	15+ years
Experienced in use of ADR and Risk	Yes	Yes	Yes	Yes	Yes
Number of experience in use of ADR	13 years	10 years	20 years	12 years	11 years

The expert interview findings were analyzed through manual content analysis, and the findings under Part 02 and Part 03 were used to design the structured questionnaire with 5 points Likert scale. The questionnaires were distributed among 40 professionals who satisfy two criteria; (i) respondents having at least 10 years' experience in their profession to assure that the respondent is aware on construction risk factors and its behaviors and (ii) having at least 5 years' experience with dispute resolution, to ensure that the respondent is aware of characteristics, advantages, disadvantages, and process of each ADR methods. Out of 40 questionnaires, 34 responses were received. The responses were analyzed using the Relative Importance Index (RII) using Microsoft Excel spreadsheet software. Following the results yield, a matrix was developed to identify the most suitable ADR method(s) based on risk factors to the Sri Lankan context.

5. Research Findings

Following the research methodology adopted for this study, the data collection was done in two stages, expert interview in first stage and questionnaire survey in second stage. The findings are discussed below.

5.1 EXPERT INTERVIEW FINDINGS

The expert interview guideline was designed in three parts as described in methodology and therefore, the findings are analyzed under three headings below.

Applicable risk factors for the choice of an ADR method(s) (Part 01)

The Table 4 demonstrates the respondent's selection of risk factors of construction projects identified through literature on the criteria of applicability for choosing an ADR method. Out of the 15 risk factors, the 10 risk factors where majority of the interviewees (3 or above respondents) agreed on as applicable for the choice of an ADR method(s) were taken forward to the next stage to achieve the aim of this study.

Table 4, Expert interview findings on risk factors for the choice of ADR method(s)

No	Risk factors in construction projects identified through literature	Applicability of risk factors for the choice of an ADR method				
		Respondent 01	Respondent 02	Respondent 03	Respondent 04	Respondent 05
1	Financial risks like construction cost overruns, financial failures, delayed payments	yes	yes	yes	yes	yes
2	Defective work	x	x	x	x	Yes
3	Technological risk; Technology changes	yes	yes	yes	yes	Yes
4	Changes in Laws and local standards, political risks	yes	yes	yes	yes	Yes
5	Time risk; scheduled delays	yes	yes	yes	yes	yes
6,7	Lack of availability of resources and Lack of communication and team collaboration	x	x	yes	x	yes
8	Lack of communication and team collaboration	yes	yes	yes	yes	yes
9	Variations; Scope changes	yes	yes	yes	yes	yes
10	Environmental risks; weather and climatic issues, unknown geological and site conditions	yes	x	yes	x	yes
11	Economic changes; Inflation, tax	x	yes	x	x	x
12	Documents and information risk	yes	x	yes	yes	yes
13	Approval delays; Excessive procedures for statutory clearances and approvals	yes	yes	yes	yes	yes
14	Accidents at site	x	x	x	x	yes
15	Social risks; language barriers, various cultures	yes	yes	yes	yes	yes

Characteristics of ADR methods that are to be focused in the perspective of nature of risk factors (Part 02)

The expert interview findings explored the characteristics that are to be looked when choosing ADR method(s) under risk factors of construction projects. The findings are summarized below.

01. Financial risks - If financial risk is the most significant risk factor in a construction project, an ADR method which has lowest cost will be suitable

02. Technological risk - If a project is more technical and technological risk is the most significant risk factor in a construction project, an ADR method which can use expert knowledge will be suitable.

03. Risk on changes in policies, rules and regulations - If project is running in a duration where policies, rules and regulations are continuously changing and risk of changes in policies, rules and regulations is the most significant risk factor in a construction project, then an ADR method which does not affected by policies and regulation changes is most suitable. In fact, less formal process is more suitable where parties can mutually resolve disputes.

04. Time risk (Risk on Project duration) - If time is the most significant risk factor in a construction project, an ADR method which can resolve a dispute faster is suitable.

05. Risk on lack of communication and team collaboration - If risk on lack of communication and team collaboration is the most significant risk factor in a construction project, an ADR method where third party involvement presence and parties allow to share ideas is more suitable.

06. Risk on variations in respect of scope changes of the project - If a project is more open towards variations in respect of scope changes of the project and if that is the most significant risk factor of a construction project, an ADR method which is less formal and supportive will be suitable since then parties can run the project with mutual understanding.

07. Environmental related risk - If a project is more open towards environmental related risks and environmental risk is the most significant risk factor of a construction project, an ADR method which supports to use expertise knowledge for settlement of environment related disputes is suitable since external party involvement is high in such projects (like Central Environmental Authority, Urban Development Authority)

08. Risk on documentation errors - If a project is more open towards risk on documentation errors and that risk is the most significant risk factor of a construction project, an ADR method which is more formal that provides binding decisions is suitable since in practice, parties are reluctant to accept such errors.

09. Risk on excessive procedures for statutory clearances and approvals (Approval delays) - If a project is more open to risk on excessive procedures for statutory clearance and approvals and if that risk is the most significant risk factor in a construction project, then a fast ADR method which can provide quick decisions will be more suitable.

10. Risk on social risk - If project is open to risk on social issues and social risk is the most significant risk factor in a construction project, then an ADR method which can use a third party who is best to address a given social issue is suggested as effective.

The above findings were utilized when designing the structured questionnaire for the study.

5.2 QUESTIONNAIRE SURVEY FINDINGS

The questionnaire survey findings were analyzed using RII technique. The result provided weightages for each ADR method(s) under considered risk factors, which the findings were included in a matrix in Table 5.

Table 5, The matrix for the choice of ADR method(s) based on risk factors

Risk factors \ ADR methods	Negotiation	Mediation	Conciliation	Adjudication	Arbitration
01. Financial risks	1 (RII = 0.976)	2 (RII = 0.618)	3 (RII = 0.600)	4 (RII = 0.500)	5 (RII = 0.335)
02. Technological Risk	1 (RII = 0.806)	4 (RII = 0.524)	3 (RII = 0.659)	2 (RII = 0.694)	5 (RII = 0.429)
03. Risk on changes in policies, rules, and regulations	1 (RII = 0.835)	3 (RII = 0.647)	2 (RII = 0.682)	4 (RII = 0.500)	5 (RII = 0.335)
04. Time risk (Risk on Project duration)	1 (RII = 0.953)	2 (RII = 0.688)	3 (RII = 0.635)	4 (RII = 0.488)	5 (RII = 0.324)
05. Risk on lack of communication and team collaboration	4 (RII = 0.506)	1 (RII = 0.676)	3 (RII = 0.671)	1 (RII = 0.676)	5 (RII = 0.418)
06. Risk on variations in respect of scope changes of the project	1 (RII = 0.894)	2 (RII = 0.700)	3 (RII = 0.665)	4 (RII = 0.494)	5 (RII = 0.324)
07. Environmental related risk	5 (RII = 0.494)	3 (RII = 0.641)	2 (RII = 0.706)	1 (RII = 0.700)	4 (RII = 0.547)
08. Risk on documentation errors	5 (RII = 0.400)	4 (RII = 0.465)	3 (RII = 0.547)	2 (RII = 0.712)	1 (RII = 0.806)
09. Risk on excessive procedures for statutory clearances and approvals (Approval delays)	1 (RII = 0.882)	2 (RII = 0.676)	3 (RII = 0.618)	4 (RII = 0.500)	5 (RII = 0.347)
10. Risk on social risk	1 (RII = 0.753)	3 (RII = 0.700)	2 (RII = 0.747)	4 (RII = 0.535)	5 (RII = 0.429)

Thus, the aim of this research, developing a matrix by ranking ADR methods to identify the most suitable ADR method(s) based on risk factors to the Sri Lankan context was accomplished.

6. Discussion

The matrix in Table 5 will be discussed here with the available literature and real data to state the validity of the research findings. In order to conclude the summary of the Table 5, the percentage of sum of RII values of each ADR method to the total figure of RII values within the matrix in Table 5 is calculated. Based on derived percentages, the Figure 1 is developed. Thus, the chart depicts how ADR method(s) will be suitable for resolving disputes when risks considered as criteria for the ADR selection.

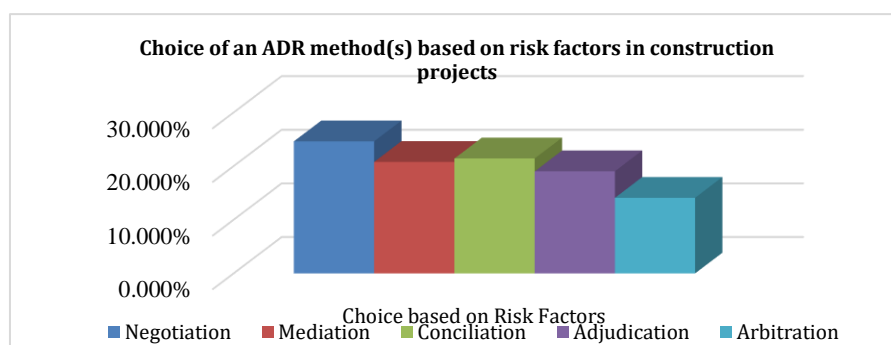


Figure 1, Choice of ADR method(s) based on risk factors as a whole

According to the research findings, negotiation is the most suitable ADR method out of the five ADR methods analyzed within the research. Secondly, mediation is considered as important over conciliation as conciliation is ranked in third place where adjudication is to be chosen fourth place and arbitration is to be chosen last to resolve disputes in construction projects. The empirical findings of this research match to the view of Jayasena and Kavinda (2011), which illustrated negotiation as the most preferred choice for dispute resolution. However, the expert interview findings revealed that the widely used ADR methods in construction practice are dispute adjudication board or arbitration. The research findings reveal that, both two methods are not suitable to practice in construction projects in terms of risk factors embedded in projects. Further, though the literature states that, conciliation is the least suitable method to resolve disputes in terms of ADR characteristics such as time, cost, confidentiality, flexibility, and enforceability (Abeynayake, 2014), conversely, in this context, conciliation is more suitable than adjudication and arbitration in terms of addressing risk factors associated in construction projects. Hence, according to the research findings, it can conclude that project team should always try to resolve disputes through negotiation, conciliation or mediation and their last choice should be dispute adjudication board or arbitration to resolve disputes in terms of risk factors of construction project(s).

7. Conclusion

This study significantly overviews the risk factors of construction projects from the perspective of the Employer and the Contractor and how such risk factors can be affected the choice of an ADR method(s). The literature survey highlights negotiation, mediation, conciliation, dispute adjudication board, and arbitration as widely used ADR methods in construction projects in Sri Lanka. The expert interview proves that dispute adjudication board, and arbitration are the most practicing ADR method(s) in construction projects in Sri Lanka, because its decision is either final or final and binding by the law of Sri Lanka. However, the expert interview findings reveal that it is required to analyze and propose ADR methods for construction projects rather than always following the standard methods laid in forms of contracts. Accordingly, the current research identified that risk factors of construction projects can be looked in the perspective of choosing the ADR method(s). Thereby, the findings disclose that negotiation is the best ADR method to follow in dispute resolution, and conciliation, medication, dispute adjudication board, and arbitration are to follow respectively in terms of risks in construction projects. The results were recommended that noticeable attention is to be given by parties in dispute resolution to follow negotiation as much as possible as it can be beneficial to the successful delivery of the project while addressing the risks associated in construction projects.

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