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OPPORTUNITIES AND CHALLENGES IN CONDUCTING VIRTUAL ALTERNATIVE DISPUTE RESOLUTION (ADR) METHODS IN THE SRI LANKAN CONSTRUCTION INDUSTRY

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ABSTRACT

The Covid-19 pandemic has created a new norm in which technology is at the forefront of keeping the globe running and rebuilding better after the crisis. Several countries practiced virtual ADR during the pandemic than in the pre-pandemic situation, and the virtual shift has gained traction. The research aims to explore the potentiality of the ADR methods in the virtual platform for the settlement of the dispute and make recommendations for effective legal implementation of those methods in the Construction Industry in Sri Lanka. The research aim was achieved through a qualitative approach; collected data through two stages: a preliminary interview and a semistructured interview with experts and finally analysed with manual content analysis. Key research findings are the opportunities and challenges to implement and conduct ADR in the virtual platform in the Sri Lankan construction industry. In addition, the strategies were collected to identify the potentiality of virtual ADR. The research concludes that the blended approach is suitable for Sri Lanka and the entire virtual ADR is not suitable. The entire virtual ADR shall be potential for Sri Lanka if all the opportunities are utilized and all the strategies are followed. As the virtual ADR is a game-changer for the SL construction industry, regulatory bodies and arbitration institutions must take initiatives to implement and conduct virtual ADR successfully in the future.

Keywords: Alternative Dispute Resolution (ADR); Opportunities and Challenges; Pandemic; Virtual.

1. INTRODUCTION

Construction projects are typically complicated and uncertain with challenges (Changaroth, 2015). One of the most significant aspects that prevent any construction project from being completed successfully is a dispute (Soni, Pandey, and Agrawal, 2017). Alternative Dispute Resolution (ADR) methods are recognized as a legal instrument designed to help parties reach solutions in any form of dispute (Niriella, 2016). The overall aim of the construction sector in using ADR methods is to resolve disputes quickly while preserving the reputation of all parties involved (Abenayake, 2014).

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The SARS-CoV-2 virus that caused the COVID-19 disease was discovered in China in December 2019 and declared a global pandemic by the World Health Organization (WHO) in March (Beck, Shin, Choi, Park, and Kang, 2020). Outbreaks of the Coronavirus (COVID-19) have affected the economy negatively. It heavily depends on global trade and impacts households, businesses, financial institutions, industrial facilities, and infrastructural corporations simultaneously (Biswas, 2021). The construction industry is not escaped from the list (Zin, et al., 2021).

It appears that the pandemic has had a more substantial impact on ADR procedures (Rooney, 2020). The covid-19 pandemic requires ADR practitioners to convey results immediately and empower economic restoration despite an extended dramatic expansion in disputes (Sourdin and Zeleznikow, 2020). Given the fact that dispute in the construction industry is a consistent issue, it is fundamental to start a conversation among industry specialists by the ADR practitioners concerning ways to address the issue (Saseendran, et al., 2020).

Technology-mediated ADR, also known as Online Dispute Resolution (ODR), has grown into a global movement (Ojiako, Chipulu, Marshall, and Williams, 2017). Growing momentum for change occurred with the increased use of the virtual platform. Rabinovich-Einy and Katsh (2014) illustrated that virtual ADR began as an online version of ADR, initially focusing on applying technology. The Covid-19 pandemic has created a new norm in which technology is at the forefront of keeping the globe running and rebuilding better after the crisis (Osadua, et al., 2020). The virtual hearing has thrived with the pandemic (Osadua, et al., 2020).

In other jurisdictions, the virtual shift has gained traction. Similarly, the need for a longtime change for a new normal is already gaining traction in Sri Lanka. This study focused on virtual ADR. The potentiality of virtual ADR by comparing the opportunities and challenges experienced by developed countries would differ from the Sri Lankan context. This matter should be carefully addressed by studying the opportunities and challenges of ADR on the virtual platform in Sri Lanka. In addition, there are queries on whether the virtual ADR is a substitution for typical ADR in the long run, why beneficial to continue, and how to improve the effective implementation and conduct successfully in the Sri Lankan construction industry. Given the lack of studies that have shed light on the situation, this work closes the research gap.

2. METHODOLOGY

The primary goal of this section is to present the methodological structure of the study. The research question is "What is the potentiality of virtual ADR in Sri Lanka and how to improve the widespread use of virtual ADR in the Sri Lankan construction industry?". The research question of this research falls under the type "why what and how". A large volume of data needs to be collected in words, and the approach used to handle the data with "words" is the qualitative approach. A qualitative research approach was conducted to achieve the research aim. It is significant in terms of focusing on a specific group of people, representing the views and perspectives of the people, and in-depth studies on topics.

To achieve the objective through the question of "what are the strategies to overcome the challenges for implementation and conduct of virtual ADR in the Sri Lankan construction industry?", a survey strategy was used. A comprehensive literature survey was carried

out to identify the general concept of ADR, implementation of ADR for settlement of Dispute, and the general concept of virtual ADR. The literature survey was achieved by referring to journals, books, conference proceedings, dissertations/ thesis, and other related sources. A semi-structured expert interview was used as a data collection technique and the findings presented in the paper were analyzed using manual content analysis.

3. VIRTUAL ALTERNATIVE DISPUTE RESOLUTION

Parties should anticipate "how the disputes would be handled and resolved" (Bates and Torres-Fowler, 2020). For this purpose, Cheung (as cited in Raji, Mohammed and Oseni, 2015) opinioned that given the construction industry's nature, there has been a definite tendency toward exploring alternate methods of resolving disputes to come at cost-effective, adaptable, and time-efficient solutions. The overall aim of the construction sector in using ADR methods is to resolve disputes quickly while preserving the reputation of all parties involved (Abenayake, 2014).

The impact of the COVID-19 pandemic on projects under construction at the time of governmental actions, as well as projects that were deferred or canceled due to the pandemic's economic impact, has increased the number of new disputes (Bates and Torres-Fowler, 2020). According to Rooney (2020), it appears that the pandemic has had a more substantial impact on ADR procedures. Innovative technology like Blockchain technology and artificial intelligence (AI) has not been used in dispute resolution. To prevent delays, numerous arbitrators have conducted ongoing proceedings virtually, and advisors and parties have expressed satisfaction with the procedure (Bates and Torres-Fowler, 2020).

3.1 OVERVIEW OF ONLINE DISPUTE RESOLUTION (ODR)

ODR is defined as "the complete range of possibilities for resolving disputes through the use of communications and other forms of technology, particularly the Internet." (Lavi, 2016, p.897). Technology creates ODR particularly appealing for global projects where face-to-face meetings are difficult, cultural and institutional differences are significant, and incentives to create long-term stakeholder trust are low because relationships between disputants are transient (Ojiako, et al., 2017). More crucially, because of its purpose as a portal or medium for constructing interaction and decision architectures via which disputes are channeled towards settlement, ODR is always considered to involve more than the usage of communications technology.

3.2 VIRTUAL ADR MODEL

While the whole world transferred to continue their activities in a virtual platform, the dispute resolution Institution has permitted to proceed in the virtual platform. Even though the virtual platform is not new, its utilization has been revealed and expedited during the crisis.

Virtual hearings have undoubtedly dominated discussions concerning virtual dispute resolution. There will be no obstacle to, and failure of dispute resolution mechanisms caused by the inability of disputing parties to meet physically because of this (Osadua, et al., 2020). Technology has aided in the erosion of barriers, making it a speedier and more

cost-effective option with the added benefit of avoiding human trust difficulties that may hamper alternative ADR methods (Ojiako, et al., 2017).

The model of a virtual ADR is shown in Figure 1.



Figure 1: Virtual ADR model

4. IMPLEMENTATION AND CONDUCT OF VIRTUAL ADR IN SRILANKA

4.1 VIRTUAL ADR BEFORE THE PANDEMIC PERIOD

According to the survey carried out in the Sri Lankan construction industry through expert interviews, there were records of ADR conducted virtually during the pre-pandemic period. It showed, there were negotiations, mediations, adjudications, and arbitrations were conducted virtually before the pandemic period. However, it was sparingly used in case of either impossibility of the witness coming to Sri Lanka or the impossibility of parties and arbitrators traveling abroad where the seat of arbitration is fixed.

4.2 IMPACT ON PRACTICE AND PROCEDURE OF ADR DUE TO PANDEMIC

The pandemic has made changes to most of the procedures in the world, and ADR is not an exception. Technology has paved the way to practice ADR procedures virtually. Sri Lanka has thrived to practice it without any alternative options. A simple graphical representation obtained from the data collected is shown in Figure 2. It elaborates that initially the ADR proceedings have been stopped. To navigate from the postponement, used the technology to conduct the virtual hearings through zoom and Microsoft teams. It required the written consent of the parties. Then with the further steps as per the figure, virtual ADR was conducted. There are no protocols, guidelines, or regulations for virtual ADR in Sri Lanka. In addition, there are no laws or specific provisions addressing virtual ADR procedures in Sri Lanka.

According to the information obtained from the Institute of Commercial Law and Practice (ICLP), there was construction arbitration conducted in a hybrid manner. Nevertheless, specifically for construction disputes, there were two adjudications conducted virtually. According to Sri Lankan National Arbitration Centre (SLNAC), more than ten arbitrations were conducted virtually in Sri Lanka. In addition, a preliminary adjudication meeting which happened in person was then conducted virtually. In addition to SLNAC and ICLP, virtual ADR was practiced in individual chambers of arbitrators and adjudicators.

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Figure 2: Impact of ADR due to pandemic

4.3 VIRTUAL PLATFORMS USED IN SRI LANKA

The virtual platforms used to conduct ADR in the Sri Lankan construction industry are Zoom, Web-Ex, Microsoft Teams, Google meets, and Skype. In addition, WhatsApp and Facebook messenger was used as messaging platforms, and Iconix was used as a file handling platform. Furthermore, computer tablets, laptop computers, desktop computers, and smartphones are the devices used in virtual conduct.

5. OPPORTUNITIES AND CHALLENGES TOWARDS VIRTUAL ADR

The factors that encouraged the change and resisted the change from in-person to virtual ADR are referred to as opportunities and challenges respectively. The encouraging factors and resistance factors are shown in a figure under respective subtitles.

5.1 FACTORS THAT ENCOURAGED THE CHANGE

The use of digital technologies to generate new revenue and value-producing opportunities is known as digitalization. As the world moves towards digitalization, conducting ADR in a virtual platform is an opportunity.

Table 1 provides the factors that encouraged the implementation of virtual ADR obtained from the survey carried out in the SL construction industry.

Category	Factors that encouraged the change towards virtual ADR
Laws in Sri Lanka	Electronic transactions (amendment) Act No 25 of 2017
	Data protection Bill of 2021
	Computer Evidence Act 1995
	Litigation Act no: 17 of 2021- Part III specifically addresses virtual hearings by courts
Party Autonomy	Agreed by parties

Table 1: Factors that encouraged the change toward virtual ADR

Category	Factors that encouraged the change towards virtual ADR
	Agreed to conduct on an Ad- hoc basis from individual chambers of arbitrators and adjudicators
Technology Advancements	Digitalization of globe
Convenience	Parties and witnesses consider virtual ADR as convenient
	Ability to participate from different locations
Cost savings	Less costly
	Cost for travel is eliminated
	Cost for accommodation
Time Savings	Less time-consuming procedure

Table 2 provides the factors that encouraged the conduct of virtual ADR obtained from the survey carried out in the SL construction industry.

Category	Factors that assisted in conducting virtual ADR
Convenience	More flexible
	Tired of traveling is eliminated
	Quickly scan and share the documents
	Witnesses are very cooperative
	Conducted more smoothly than a physical hearing
	No translators required
Cost Savings	Fewer time restrictions and the submission
	Reduce administrative fees paid to the institutions
Time Savings	No delay in transportation

Table 2: Factors that assisted in conducting virtual ADR

5.2 FACTORS THAT RESISTED THE CHANGE

There were two adjudication and three arbitrations of construction disputes that happened via zoom. Table 3 provides the factors causing reluctance to the implementation of virtual ADR obtained from the survey carried out in the SL construction industry.

Category	Factors that reluctant the change toward virtual ADR		
Management of Human	Reluctant to changing human nature		
Psychology is Difficult	Difficult to refuse by anyone if another party, resolutioner, and the witness agreed to proceed virtually		
Poor Infrastructure of Sri Lanka	Technological limitations		
Technological Limitations	Costly to set up gadgets, strong internet, and software licenses		
	Virtual platform has their own characterized limitations		
	Lack of technical knowledge		
	Lack of familiarity with technology of senior professionals		

Table 3: Factors causing reluctance to the change toward virtual ADR

	The file system is not digitalized
	Struggled to find stenographers
Lack of Encouragement from the Regulatory Body	No professional institutions encouraging

Table 4 provides factors that resisted the conduct of virtual ADR obtained from the survey carried out in the SL construction industry.

Category	Factors that resisted conducting virtual ADR	
Lack of human touch	The art of meeting physically is lost in a virtual platform	
	The negative impact on the decisions	
	Difficult to express the contentions	
	Difficult to express the arguments	
	Difficult to establish the explanations for the fact	
Management of human psychology is difficult	The moods of participants would be different	
	Difficult to bring everyone to one focus	
	Parties were not comfortable having virtual hearings	
Poor Infrastructure of Sri Lanka	Connection Issues	
	Unexpected power failures in Sri Lanka	
Outcome of VADR	Lack of quality decisions	
	Reduce the effectiveness of ADR	
Technological Limitations	Deficiencies in the integrity of cross-examination of expert witness	
Data Security	Porous of data transactions	
	Screenshots by the third party	

Table 4: Factors that resisted conducting virtual ADR

In addition, the research findings depict that SLNAC has taken a step to develop highly sophisticated software for the sole purpose of ADR procedure in SL. Similarly, ICLP has taken steps toward developing a protocol. Apart from that, ICLP is still struggling to develop a protocol that satisfies the needs of everyone.

5.3 STRATEGIES TO OVERCOME THE RESISTANCE TO IMPLEMENTATION AND CONDUCT OF VIRTUAL ADR IN THE SRI LANKAN CONSTRUCTION INDUSTRY

The strategies for the factors causing reluctance to implement and conduct virtual ADR in Sri Lanka are given in Table 5.

Factors that are reluctant the change or resisted conducting virtual ADR	Strategies to overcome the reluctancy		
Lack of human touch			
The art of meeting physically is lost in a virtual platform	Identify what areas we can go virtual and manage and what is essential for the physical meeting		
Difficult to establish the explanations of the fact	Conduct pre-ADR meeting		
Management of human psycholo	ogy is difficult		
Difficult to refuse by any one if	Amendments to the conditions of the contract		
other party, resolutioner, and	Changing the policies in the contract		
witness agreed to procced virtually	Revise the documents that describe the location of the hearings		
Poor Infrastructure of Sri Lank	a		
Connection issues in Sri Lanka	Make sure that all can connect to the meeting		
	Have two laptops, one to connect virtually and the other for documents		
Lack of encouragement from the	e regulatory body		
No professional institutions encouraging	Should implement a provision		
Technological limitations			
Virtual platform has their own characterized limitations	Develop a highly sophisticated platform for Sri Lankan Construction Industry		
Lack of technical knowledge	Appoint at least one person in the tribunal having technical expertise		
Lack of familiarity with technology of senior professionals	Get well prepared for the meeting virtually		
The file system is not digitalized	Records shall be digitalized, which supports people scanning and filing		
	Fix another camera and give a picture of the entire room environment		
	Arbitrators especially must have the right to be fully aware that the integrity of the hearing is not compromised		
	Flexibility must be given to have a physical hearing when the witness must refer to several documents		
Data Security			
Porous of data transactions	Develop each own data security		
Screenshots by the third party	Impose duty on parties not to do unauthorized act		

Table 5.	Factors the	it resisted	conducting	virtual ADR
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There will be a high potential to implement and conduct the virtual ADR by utilizing the opportunities and strategies to overcome the challenges (refer Figure 3).

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Figure 3: Potential for virtual ADR in the Sri Lankan construction industry

6. PRACTICE OF VIRTUAL ADR IN FUTURE

6.1 **TYPE OF APPROACH**

The research found that the virtual ADR will be practiced in the Sri Lankan construction industry in the future. Even though there are advantages such as timesaving and costsaving, the construction dispute resolution specifically needs the physical meeting to a certain extent. The ADR procedure in the construction industry involves submissions, clarifications, more technical nature explanations, discussion, and understanding of the technology behind the dispute. Therefore, a considerable percentage of the matters can be discussed and finalized virtually; virtual ADR is not entirely feasible for construction disputes. However, it will be a norm in the future to solve construction-related disputes in an entirely virtual manner.

The friendliest approach by most parties is a blended approach, rather than going fullyin-person or entirely virtual manner. Even in the blended approach, most notice procedures, agreements, and document sharing would happen virtually. However, the site visit and final evaluation and decision-making would happen virtually.

6.2 CHARACTERISTICS OF DISPUTE INFLUENCE THE SELECTION

The characteristics of the dispute that influence the applicability of virtual ADR in the SL construction industry are the nature of the dispute, the complexity of the dispute, the financial value of the claim, and the parties involved.

6.3 ADDITIONAL SKILLS NEEDED TO CONDUCT VIRTUAL ADR IN FUTURE

The additional skills that must be developed by the parties of construction projects and dispute resolution practitioners are shown in Figure 4.

7. CONCLUSIONS

The most critical opportunity in Sri Lanka for virtual ADR, which is identified and verified by most experts is time-saving and cost savings. The time savings related to travel time and cost savings related to travel, accommodation, and administrative costs. On the other hand, most experts identified and verified the major challenge is the lack of human interaction and credibility of witness examination. Human interaction is an art in an ADR procedure. It got lost in virtual ADR.



Figure 4: Additional skills needed to conduct virtual ADR

SLNAC and ICLP have not published their initiatives yet toward virtual ADR. Moreover, CIDA has not taken any steps yet. No legal steps have been taken toward virtual ADR. In contrast, all virtual ADR was conducted purely with the parties' consent, and they believe that is sufficient for the time being in Sri Lanka. Nevertheless, it will not be applicable in the long-run virtual ADR.

The most significant argument of construction industry professionals is that the site visits, evaluation of documents, witness cross-examination, and final decision making shall be done physically in a process of ADR. Construction industry professionals provide significant interest in in-person ADR compared to virtual ADR. Apart from that, the world is moving towards digitalization, and all the procedures are digitalized. Entirely-virtual ADR will be a norm in the future, which will be very valuable to the construction industry. Therefore, the necessity of identifying the potentiality in Sri Lanka to implement and conduct virtual ADR for construction disputes is validated. There is a high potentiality to implement and conduct virtual ADR in the Sri Lankan construction industry in the future if the opportunities are experienced and the strategies to overcome the challenges are utilized as a benefit.

This study is an eye-opener and game-changer for the stakeholders to induce the widespread use of virtual ADR. If the parties, dispute resolution practitioners, arbitration institutions, professional institutions, regulatory bodies, and statutory bodies, then entirely- virtual ADR can be effectively implemented and conducted in the Sri Lankan construction industry.

8. **REFERENCES**

Abenayake, M.D.T.E., 2014. Critical Analysis of Alternative Dispute Resolution Methods used in the Construction industry in Sri Lanka. Unpublished master's thesis. University of Moratuwa, Sri Lanka.

- Bates, A. and Torres-Fowler, R.Z., 2020. ADR for construction disputes during COVID-19: How to manage dispute resolution before and after the dust settles [online]. Available from: https://www.jdsupra.com/legalnews/adr-for-construction-disputes-during-69737/ [1 February 2022].
- Beck, B., Shin, B., Choi, Y., Park, S. and Kang, K., 2020. Predicting commercially available antiviral drugs that may act on the Novel Coronavirus (2019-nCoV), Wuhan, China through a drug-target interaction deep learning model. *Computational and Structural Biotechnology Journal*, 18, pp. 784-790
- Biswas, A., 2021. The impact of COVID-19 in the construction sector and its remedial measures [Online]. *Journal of Physics: Conference Series* 1797 012054. Available from: https://iopscience.iop.org/article/10.1088/1742-6596/1797/1/012054/pdf
- Changaroth, A., 2015. Online dispute resolution Suitability in the construction industry. UNCITRAL India Workshop on Dispute Resolution in the Construction Industry, New Delhi.
- Lavi, D., 2015. Till death do us part?!: Online mediation as an answer to divorce cases involving violence. *North Carolina Journal of Law and Technology*, 16(2).
- Niriella, M., 2016. Amicable settlement between the disputed parties in a criminal matter: an appraisal of mediation as a method of alternative dispute resolution with special reference to Sri Lanka. Sri Lanka Journal of Social Sciences, 39 (1), pp. 15-25.
- Ojiako, U., Chipulu, M., Marshall, A. and Williams, T., 2018. An examination of the 'rule of law' and 'justice' implications in online dispute resolution in construction projects. *International Journal of Project Management*, 36, pp. 301-316.
- Osadua, G., Courtney, C., Morelli, A. and Mudali, A., 2020. Guidelines on remote hearing for dispute settlement for trade agreements in times of crises A contribution to the policy hackathon on model provisions for trade in times of crisis and pandemic in regional and other trade agreements. University College of London.
- Rabinovich-Einy, O. and Katsh, E., 2014. Digital justice: Reshaping boundaries in an online dispute resolution environment. *International Journal of Online Dispute Resolution*, 1(1), pp. 5-36.
- Raji, B., Mohamed, A.A. and Oseni, A.U., 2015. Reforming the legal framework for construction dispute resolution in Nigeria: A preliminary literature survey. In: *Proceeding - Kuala Lumpur International Business, Economics and Law Conference* 6, 4. [Online] Available from: http://klibel.com/wpcontent/uploads/2015/04/KLIBEL6_Law__35_AGN0YN0zxh.pdf
- Rooney, K. M. [ed]., 2020. The global impact of the Covid-19 pandemic on commercial dispute resolution in the first seven months. *Dispute Resolution International*. [Online] Available from: https://www.ibanet.org/article/BD404CE3-3886-48A8-98F6-38EAACCD5F53
- Saseendran, A., Bigelow, B.F., Rybkowski, Z.K. and Jourdan, D.E., 2020. Disputes in construction: Evaluation of contractual effects of ConsensusDOCS. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, 12(2), p.04520008.
- Soni, S., Pandey, M. and Agrawal, S., 2017. Conflicts and disputes in construction projects: An overview. *International Journal of Engineering Research and Application*, 7(6), pp. 40-42.
- Sourdin, T. and Zeleznikow, J., 2020. Courts, mediation and COVID-19. *Australian Business Law Review*, Forthcoming. [Online] Available from: http://dx.doi.org/10.2139/ssrn.3595910
- Zin, S.M., Rahmat, N.E., Razak, A.M.A., Fathi, N.H. and Budiartha, I.N.P., 2021. A proposed pandemic clause for force majeure events under construction contracts in Malaysia. *Environment-Behaviour Proceedings Journal*, 6(16), pp. 33-37.