POWER OF EMPLOYER TO VARY WORKS UNDER FIDIC STANDARD CONTRACTS AND UAE LAW

سلطة صاحب العمل في تغيير الأعمال تحت عقود فيديك القياسية وقانون دولة الإمارات العربية المتحدة

by

RAMI MOHAMAD FAYAD

Dissertation submitted in fulfilment

of the requirements for the degree of

MSc CONSTRUCTION LAW AND DISPUTE RESOLUTION

at

The British University in Dubai

December 2021

DECLARATION

I warrant that the content of this research is the direct result of my own work and that any use made in it of published or unpublished copyright material falls within the limits permitted by international copyright conventions.

I understand that a copy of my research will be deposited in the University Library for permanent retention.

I hereby agree that the material mentioned above for which I am author and copyright holder may be copied and distributed by The British University in Dubai for the purposes of research, private study or education and that The British University in Dubai may recover from purchasers the costs incurred in such copying and distribution, where appropriate.

I understand that The British University in Dubai may make a digital copy available in the institutional repository.

I understand that I may apply to the University to retain the right to withhold or to restrict access to my thesis for a period which shall not normally exceed four calendar years from the congregation at which the degree is conferred, the length of the period to be specified in the application, together with the precise reasons for making that application.

Signature of the student

COPYRIGHT AND INFORMATION TO USERS

Abstract

The overarching purpose of this research is to discourse and contribute to the limited body of research addressing the extraordinary power of the employer to vary according to the UAE laws and FIDIC forms of contracts. The research is inspired by the need to help parties to a construction contract understand the power of the employer and the employer's representative to vary, and to understand the protection given to the contractor in case there is a variation instruction.

Gaining this understanding will go a long way to help reduce the number of disputes, which often slow down constructions thus affecting the industry, which immensely contributes to the economy of the UAE. Apart from interpreting different clauses in the UAE Civil Transaction Code (CTC) and FIDIC forms such as the Red Book, the paper also reviews relevant cases within and without the UAE jurisdiction.

The paper concludes that while an employer's power to vary is indeed extraordinary, it is justified to a large extend. The intention is to ensure that the employer, who might be a novice when it comes to construction and the relevant laws, is able to complete the project regardless of unforeseen circumstances. The paper also asserts that, the contractor is protected from unfair enrichment or exploitation by the employer.

ملخص البحث

الغرض من هذا البحث هو التطرق والتكلم عن قوة صاحب العمل في تغيير الأعمال وفقا لقوانين دولة الإمارات العربية المتحدة وعقود فيديك

البحث مستوحى من الحاجة إلى مساعدة الأطراف في عقد البناء على فهم قوة صاحب العمل في التغيير، وسلطة ممثل صاحب العمل، والحماية الممنوحة للمقاول في حالة وجود تعليمات تغيير.

إن اكتساب هذا الفهم سيقطع شوطًا طويلاً للمساعدة في تقليل عدد النزاعات، والتي غالبًا ما تبطئ الإنشاءات وبالتالي تؤثر على الصناعة، مما يساهم بشكل كبير في اقتصاد دولة الإمارات العربية المتحدة.

بصرف النظر عن تفسير البنود المختلفة في قانون المعاملات المدنية لدولة الإمارات العربية المتحدة وعقود فيديك مثل الكتاب الأحمر، والكتاب الأصفر، والكتاب الفضي، والكتاب الذهبي من بين أمور أخرى، تستعرض الورقة أيضًا الحالات ذات الصلة داخل وخارج الولاية القضائية لدولة الإمارات العربية المتحدة.

تخلص الورقة إلى أنه في حين أن سلطة صاحب العمل في التغيير هي حقًا غير عادية، إلا أنها مبررة إلى حد كبير. القصد من ذلك هو التأكد من أن صاحب العمل، الذي قد يكون مبتدئًا عندما يتعلق الأمر بالبناء والقوانين ذات الصلة، قادر على إكمال المشروع بغض النظر عن الظروف غير المتوقعة.

تؤكد الورقة أيضًا أنه على الرغم من الصلاحيات الممنوحة لأصحاب العمل وممثله عندما يتعلق الأمر بإصدار تعليمات التغيير، فإن المقاول محمي بنفس القدر من الإثراء أو الاستغلال غير العادل من قبل صاحب العمل.

Acknowledgements

I would like to express my sincere gratitude to my supervisor, Dr. Abba Kolo, for his continuous support especially regarding paper organization, formatting, and guidance on how to go about the project. It is through his support, mostly inform of insights, that I was able to complete the project successfully. I am truly grateful. Lastly, I thank my family members for giving me time and space to work on the project. I dedicate this project to you for your splendid support and understanding.

Table of Contents

1. Chapter One: Introduction

1.1 Background and Research Question

The construction industry in the UAE is a dynamic and important sector of the country and is known for mind-blowing innovations and terrific designs. One of the means of achieving this goal has been through large scale and complex construction projects.

The beautiful and complex construction projects like skyscrapers and artificial islands have attracted tourist as well as contributing to the economy by providing premises for businesses. In general, the contribution of the construction industry has steadily risen over the years with the sector directly contributing to 10 % of the country's GDP in 2012 and by 2019 it contributed to approximately 23.3% of the total employments in the country.[1] Further, the country's economy has been diversifying and improving on a lot of fronts. For instance, in 2019, the UAE did not only focus on constructing malls and skyscrapers, but it also focused on the infrastructure aspect of the country as a whole and this is well displayed by the large budgets that were provided in order to fund 187 projects in the transportation sector which is around 32.4 billion dollars, as well as 24.3 billion dollars for funding 203 projects in the utilities sector, not to forget, Al Baraka nuclear power plant project that cost the UAE millions of dollars in order to accomplish it and the many construction projects undertaken by the private sector. Nonetheless, the construction industry in the UAE has many more mega projects that are yet to come on stream.[2] For these reasons, it is imperative that contractors and employers have

[1] Anil Cherian, "The Construction Industry in the Perspective of an Economic Boost of the United Arab Emirates (UAE)" (2020) 7 International Research Journal of Engineering and Technology 272.
[2] Andrew Mackenzie and others, "Construction and Projects in United Arab Emirates: Overview" (*Global Arbitration News*May 2, 2019). <https://globalarbitrationnews.com/construction-and-projects-in-united-arab-emirates-overview/>.

access to materials that will guide them throughout future projects. Such materials will oversee seamless cooperation and reduce delays especially caused by court orders.

However, while experts and clients may dedicate enormous amount of time and resources on the design and implementation of outlines, it is no oddity that certain areas may require modifications. It hardly matters whether a design had been conceived with exemplary personnel; modifications might be needed due to unavoidable factors that necessitate a change in the works. The bottom-line is that when designing projects, it is not possible to be flawless such as to anticipate certain alterations. The inherent implication herein is that while the country's construction anticipates more construction projects, the sector must also anticipate many cases involving the variation of works.

Thus, there is always a high chance for variation to occur, but it might vary depending on the complexity and size of the project. As projects go on, there is a high probability that the scope of work may be altered by the employer. Both parties to the contract may often agree and commit to a variation clause within the contract which guarantees either party to exercise some degree of freedom while dispensing the obligations enumerated in the agreements. However, even when the contract provided for variation, questions may still arise as to what extent the right to vary exist and the obligations that flow from an exercise of the right to vary. Thus, this research seeks to explore the question of what the limitations (if any) on the right are to vary the works and the effects that might take place due to exercising such right.

This research will also elucidate on the important aspects that will aid the parties to a construction contract in understanding their obligations and duties when ordering a variation; in addition, Case Law and UAE court cases will be referred to in order to provide tangible

examples that will aid in laying out a clear explanation of the issues that will be discussed. Understanding the aforementioned will hopefully help to decrease the number of disputes that might arise because of misinterpretation of variation clauses drafted in contracts and variation orders that might be requested by the parties during construction projects.

1.2 Research Objectives

The main objectives of this research will be briefed as follows:

1. To shed light on the extent of power the employer has to vary the works under FIDIC standard form contracts and UAE law.
2. To examine the reasons that will initiate a variation to works along with providing a clear definition of what is a variation under both FIDIC standard form contracts and UAE law.
3. To discuss the rights and limitations that the parties to a construction contract have, under both FIDIC standard form contracts or under UAE law.
4. To discuss the restrictions that might apply to the engineer (consultant) when issuing variation.

1.3 Significance of Research

This research aims to provide a lucid and clear framework to the construction industry in UAE with regards to the contractual relationships relating to variations of works. Owing to the widespread challenges that faced by the construction industry in UAE and the unprecedented surge in construction projects in the country, there is a clear urge for an embedded framework for consideration of variations. Ordinarily, construction projects have many challenges that arise in the course of the projects. The implication herein is that employers and contractors

have to reconsider their contractual obligations before deciding on how to proceed further. In addition, with the revision of contracts for variations, a specific bundle of rights take course.

This research intends to provide a clear elucidation regarding the extent at which the employer has the power to vary works under both UAE law and FIDIC. Furthermore, to provide a clear guideline of what is considered to be a variation, and the significance of understanding the definition of a variation in accordance to FIDIC standard form contracts and UAE Law, as well as right of the parties to vary the work. Also, this research will provide for the limitations that might prevent the parties from ordering a variation to the construction works. Therefore, this research adds to the existing literature on the relationship between employers, contractors, and engineers and other relevant stakeholders. To provide reliable, exhaustive and constructive literature regarding the topic, there needs to be extensive studies on the same. As such, this study merely augments the existing literature on the treatment of variations in UAE. Secondly, this research provides a construction manifest for consideration of variations in works when there are inevitable and material changes when work is in progress. Changes in construction projects are a constant phenomenon because of many issues and this only implies that the industry must contend with more disputes and challenges posed by variations.

Most construction stakeholders, both inexperienced and established, have an array of questions to ask as regards the topic of variation of construction works. For instance, while under the 2017 FIDIC Red Book, vouches for the employer to exercise more power to tweak the scope of projects by way of adding, omitting and varying. However, to what extent should such powers be restrained so that they do not completely alter the underlying details of the contract? Can an employer intentionally avoid some work and thereafter delegate it to another

contractor? Do contractors have the right to object to and avoid the execution of variations as endorsed by the employer? It such questions that this research intends to discuss and expound.

1.4 Research Methodology

The doctrinal approach was the research methodology that was adopted in this research by considering and investigating preceding cases and decisions that were provided by UAE courts as well as other related court decisions. Moreover, journal articles, books and reports regarding variations in construction projects that were written by professional individuals and firms that are considered pioneers in the industry have been consulted in conducting this research paper. The approach also includes an interrogation of both the 2017 edition of the FIDIC Red Book and the 1999 FIDIC Red Book and other FIDIC Standard form contracts. The former is an updated version of the latter and enumerates the adjustments that have been made in the construction industry thus far. The FIDIC Red Book is an integral part of this research because it serves as a primary benchmark for construction issues in the UAE. Further, the research will discuss the import of the Dispute Adjudication Board (DAB) which is the lifeline of justice within construction matters. The literature review on this project has been hinged on the innumerable issues (disputes, cases and resolutions) regarding variations.

1.5 Research Structure

The research paper will consist of six chapters starting with this chapter (introduction) which will provide a brief description of what will be discussed in the chapters that are yet to come. This chapter provides a background about the construction industry in UAE, an introduction into the concept of variations of works, research objectives, research methodology, the research structure, and the significance of the research.

The second chapter will discuss how a variation to construction works is viewed under UAE law and FIDIC Standard Contracts by providing a clear definition of what a variation is and what will constitute a variation. While the FIDIC standard form contracts are often used in UAE, there are some clauses and provisions which are not clear and thus are subject to misinterpretation. The laws may also have salient differences on what may and may not constitute a variation that requires compensation of any nature. Chapter two will therefore discuss the details therein including the salient similarities and differences between UAE Civic Codes and FIDIC forms on variation of a construction contract. The third chapter will address the reasons that will initiate a variation and will provide a thorough explanation for each of these reasons. Prior to initiating a variation in the construction sector, there must be sufficient justification for the same because variations are hardly a simple matter when considering the cost and time factors involved. The chapter will consequently focus on external factors, unprecedented factors, technical factors, employer's errors and lack of communication.

The fourth chapter will discuss the people who will have the right to vary the works and those who can initiate a variation order and explaining when they shall have the rights to vary. This chapter is important because it identifies the extent of obligations and responsibilities of all parties to a construction project; that is, the employer, the engineer, and the contractor. The fifth chapter will discuss the limitations and restrictions which shall be considered by the parties to a contract before requesting for a variation to take place. Ordinarily, limitations must be placed on the right to affect a variation so that these rights and privileges are not abused. Limitations can arise because of the Taking over Certificate (TOC) and attendant implications of the law. It could also arise from the variation orders that might change the initial scope of the works.

Further, this chapter will provide a walkthrough of the dispute resolution mechanisms that are open to parties should there be a conflict related to determination of variations of work. The sixth and final chapter will provide a summary of the essential points provided by the previous chapters along with the conclusions that are meant to be reached in this research.

2. Chapter 2: Variation under UAE law and FIDIC Standard Form Contracts

To begin with, it is imperative that the term 'variation' is aptly defined in the context of construction law. In essence, under construction law, a variation occurs when changes are applied to a contracted work, which is the work that is agreed upon by the contractor and the employer when the contract is already concluded. It follows that what will constitute a variation is any instruction that will result in extra work that was not agreed upon by both parties and is considered to be beyond the scope of the existing contract. A variation basically represents the work that was executed by the contractor or work that was omitted from the scope of work by express order from the employer.[3] A variation might have consequences on either party to a contract and might likely lead to a dispute as well. For these reasons, it is imperative for both parties to a contract to have a full understanding of what a variation is, who can initiate it, and what local and international contract laws say about variation. They should also know their powers and limitations when it comes to initiating a variation as well as the consequences that such rights and limitations might have on their obligations to each other.

In most cases, a variation is always initiated by the employer. However, in special cases and contexts, a contractor or a third party is known as a contract administrator or engineer can initiate a variation. Laws and standard contracts such as FIDIC, JCT, NEC3, and many other similar standard contracts provide guidelines in regard to such a matter in order to minimize the likelihood of a dispute occurring among the parties to a contract. While these laws aim at providing guidelines and procedures regarding variation, they also have differences and might complicate the contracting process. To be on the safe side, contractors and employers alike

[3] Ellis Baker and others, *FIDIC Contracts: Law and Practice* (5th edn., Informa Law from Routledge 2009) 117–118.

should be aware of the local and international laws that are likely to affect their contracts, failure to which might lead to adverse financial implications.

Contractors and engineers in the UAE should be able to understand variation according to UAE laws as well as FIDIC forms that guide constructions in the region. UAE construction contract laws, a muqawala, are embedded in the Civil Transaction Codes (CTC). The definition of variation, rights to vary, and variation procedures are stated in clauses and provisions in articles 886, 887, and 888 among others. On the other hand, under FIDIC forms, the specific elements of variation are found in the different books which include the Red, Silver, and Golden books. While most of the books consent on a number of issues regarding variation, the exceptions are explicitly stated under specific clauses. Just like the UAE laws, the FIDIC forms define variations, give consequences of variation, and insight into how to handle possible disputes arising from a variation.

For this research, the main focus of this chapter will be the definition of variation in construction under both the UAE law and FIDIC standard contracts. The first section will focus on variation under UAE, the second part will focus on variation under FIDIC standard form of contracts, and the last part will compare and contrast the definition and different elements of variation under the two sets of laws.

2.1 Variation under UAE Law

The UAE federal laws acknowledge that it is impossible not to have variation in contracts and, therefore, have clauses and articles that act as the guiding principles to be followed by contractors and employers in order to avoid future conflict arising from a variation of any sort.

One of the requirements of the UAE laws regarding contracts is that a succinct description of the main issues must be made during the contracting process. Some of the issues that must be taken into consideration during the process of contract drafting are the scope of work to be completed, expected time of completion, the type of project to be executed, construction method, program type, and price. These issues among others are important in determining whether or not an instruction amounts to a variation order or extra work covered by the contractor.

Despite this requirement, variations are still the subject of most contentions in UAE courts due to the ambiguity of clauses and how they are interpreted in the courts of law. For instance, it is possible that some work not mentioned in the contract, at least explicitly, could still be construed not to amount to variation and thus the contractor will still be expected to complete such work without additional compensation.[4] In the UAE the civil code governs all construction contracts under specific articles that govern muqawala contracts. The Civil Transaction Code (CTC) under UAE Law covers and governs the contracts of muqawala. Muqawala relates to services and materials and is defined as a type of contract in which one party to a contract makes a thing or completes a task that is to be provided by the other party. In the UAE laws, there are a total of 25 articles that explicitly define and govern a muqawala, regardless of any agreements between contracting parties.[5] The understanding of these articles is crucial as they help in determining whether or not there is a variation order. It follows that the Civil Transaction Code (CTC) is a set of articles that clearly address matters concerning

[4] Remon Farag, "Valuation of Variation Clauses in Lump Sum Contracts" (Undergraduate Dissertation2016) 26 <https://bspace.buid.ac.ae/bitstream/handle/1234/940/2014122076.pdf?sequence=3&isAllowed=y> accessed November 18, 2021.

[5] Charles Lilley, "Contracts of Muqawala and Decennial Liability: A Middle Eastern Perspective" (Construction Blog March 15, 2010) <http://constructionblog.practicallaw.com/contracts-of-muqawala-and-decennial-liability-a-middle-eastern-perspective/> accessed November 18, 2021.

construction contracts by providing guidance to the contracting parties as well as regulating the industry such that the parties to a construction contract will know their rights and obligation under both their contracts and the law.

Despite providing comprehensive details on how construction contracts should be formulated and executed, there is a limited cover on what amounts to variation order and how such dispute can be resolved. Only a couple of articles are dedicated to this course and no further information is given.

As discussed earlier, contract variations may have a financial implication on employers and the contractor alike. UAE employers, through the muqawala laws, have received protection from price adjustments that might have severe financial implications on unsuspecting employers. While there is no explicit mention of the need to protect employers from such variations, some clauses clearly provide such protections. For instance, under the UAE federal law, it is asserted that if a muqawala is made on an agreement of a lump sum payment, a breach of contract will be deemed if the contractor demands an increase in lump sum payment as may arise during the execution of the agreed task. Further, if the contractor makes variation or addition and informs the employer of such, the existing contract must be completed in tandem with the extra work or variation.[6] Articles 885, 886, 887, and 888 further elaborate on actions to be taken and employer protection under a muqalawa.

Article 886(1) of the Federal Law is arguably the most comprehensive article under the Civil Transaction Code (CTC) that aims at protecting employers bound to a construction contract.

[6] Michael Grose and Ramiz Shlah, "Construction Law in Qatar and the United Arab Emirates: Key Differences" (2015) <Construction Law in Qatar and the United Arab Emirates: Key Differences> accessed November 18, 2021.

The article states that when the contractor, during the execution of the plan as agreed in the contract, realizes that the agreed plan cannot be completed without increasing price, should immediately inform the employer because failure to do so on time will lead to a loss amounting the same cost used to cover the extra work or variation.

The main intention is to ensure that the employer receives a prompt notification on any changes that might take the price beyond and above the figures agreed during the making of the contract.[7] Article 886 (1) applies to re-measurement contracts. In essence, a re-measurement contract is one in which it is assumed that the quantities and costs captured in the contracts are mere estimates that are bound to change during the actual execution of the project. The employer shall provide the initial plan and quantities, yet the contractor will have to re-measure and provide the actual quantities whose costs will then be settled by the employer.

Although re-measurement is a common procuring method for construction works in the country, it is not without weakness and exposes how Article 886 (1) is deeply flawed. The first shortcoming of this article is that while it protects the employer, it is not considerate as it is likely to have very dire consequences on the contractor. For instance, it upholds the employer's decision to withdraw monies whenever it is established that the contractor with terms such as not informing the employer of substantial changes in quantities in time. This is so even if the contractor invested time and money and diligently delivered quality work as specified in the contract. Secondly, the ambiguity of the clause equally hurts contractors. For example, the article fails to elaborate on what exactly is meant by substantial changes and timely reporting

[7] UAE Civil Code, Article 886.

thus making the two concepts subjective to the interpretation of the judges and arbitrators.[8] The article rightfully protects employers given that most of them have limited construction knowledge but is not sufficient to guide all construction contracts since its interpretation is not likely to lead to a fair ruling for both contractual parties. Some of the shortcomings seen in article 886 (1) are partially addressed in previous and subsequent articles.

Contractors who find themselves on the wrong side of the ruling due to the application of article 886 (1) can appeal by citing a couple of articles in the UAE Civil Transaction Code. However, these articles will only be relevant under certain conditions. To begin with, article 249 of the civil codes aims at protecting contractors and overruling the concept of 'no extra cost' in case the variation is a result of an unforeseen circumstance. In this case, the contractor will have to prove that the variation was occasioned by an unforeseen circumstance and thus the need for the employer to compensate for the extra cost.[9] The other three articles of the civil codes that can partially mitigate contractors from the harsh consequences of article 886 are 287[10], 273[11], and 472[12]. These articles propose that the contractor is paid for variations if the cause of variation is an event of force majeure. These are events that the parties under a construction contract did not anticipate and, therefore, the contractor has no control over.

These include an exhaustive as well as a non-exhaustive list of events that can, beyond a reasonable doubt, prompt the contractor to vary the construction contract. Examples are natural

[8] Chris Larkin, "Quantity Clause Needs Update" (2007) <https://www.fidic.org/sites/default/files/Quantity%20clause%20needs%20update.pdf> accessed October 5, 2021.
[9] UAE Civil Code, Article 249.
[10] UAE Civil code, Article 287.
[11] UAE Civil code, Article 273.
[12] UAE Civil code, Article 885.

events or events in connection with third parties or the employer. In such cases, the contractor has a right to vary and get paid for the additional costs. If the variation is caused by the employer, it is assumed that the employer has entered a new agreement with the contractor. It is, thus, in order for the contractor to file for unfairness or unjust enrichment. The employer will then be ordered to compensate by paying for the amount equivalent to the cost of material, expertise, and time used to cover the extra work. Despite the existence of these provisions, the UAE courts are known to be conservative in their application of these articles and thus the plight of contractors partly rests on the interpretation of Article 886 (1) which is less considerate.

Article 887 (1) further augments the guidelines on how parties to a construction contract should act by postulating provisions that aim to further safeguard the individual and collective rights of both parties in the contract. Firstly, the article explicitly outlines what parties involved should expect in the case of a lump-sum payment. The provision states that unlike in a re-measurement contract, the contractor in a lump sum payment contract may not claim compensation over lump sum payment that may arise when executing the plan as previously acceded to by the two parties.[13] This provision, just like article 886 (1) is a bit harsh to the contractor and might lead to losses. However, article 887 (2) makes up for this weakness by stating that if an employer consents to a variation or additional work, then the employer should pay the contractor with consideration of the changes implemented. If applied appropriately, article 887 aptly attempts to address the loopholes left by the previous articles, therefore, protecting both parties. For instance, in case no. 44/2008[14] and 139/2009[15], the Dubai Court of

[13] UAE Civil Code, Article 887.
[14] Dubai Court of Cassation, 44/2008.
[15] Dubai Court of Cassation, 138/2009.

Cassation successfully applied both articles and reasonably argued that in case there is no agreement on price, it in order that the employer compensates completed works since contractors are entitled and should be reimbursed monies equivalent to the amount spent on the extra work.

Lastly, it is expected that the majority of construction contracts have provisions on what should be expected in cases of variation. In the lack of such provisions, article 885, 889, and 889 together with article 887 herein will guide the arbitrators in awarding the contractor fair remuneration for the extra work completed.[16] In the end, both parties are protected and thus fairness and justice are accorded to the plaintiff in case of a dispute.

In brief, the UAE laws, through the Civil Transaction Code, limit the contractor's power to vary. Particularly, the laws of a muqawala, as explicitly covered in articles 886 and 887, rightfully protect the employers who are novice of construction laws. The articles clearly and succinctly elaborate on the risks that contractors face for varying orders or going beyond the scope of work as agreed upon in the initial plan. Although the contractor is arguably the most vulnerable party under the UAE Civil Transaction Code, specific provisions also aim at safeguarding their rights. Such provisions petition for their reimbursement in cases where it is deemed fair to do so.

[16] Celine Abi Habib Kanakri and Andrew Massey, "Legal Issues Relating to Construction Contracts in the United Arab Emirates" (Baker McKenzie Habib Al Mulla ed, *Thomson Reuters* October 1, 2017) <https://uk.practicallaw.thomsonreuters.com/0-619 1946?transitionType=Default&contextData=(sc.Default)&firstPage=true>.

2.2 Variation under FIDIC Standard Contracts

FIDIC standard contracts, provided a thorough explanation regarding all aspects concerning a variation in a construction contract which are explicitly stated in clauses 13.1 through to 13.3. The individual sub-clauses address different elements of variation including but not limited to the employer's right to vary, the procedures to be followed when varying, and the circumstance in which the contractor can provide a proposal. The core of the variation espoused in these forms reverberates throughout all the books. The mainstay argument that guides the provisions in all the books and clauses is that the employer is entitled to the right to vary either by giving instructions or making a request to the contractor asking for the submission of a proposal. With the exception of the Silver Book, all the books entitle the employer the right to instruct a variation without having to seek a consensus from the contractor. A second exception is provided in the Gold Book, clause 13.1, which asserts that the contractor's consent is required and is a consequence of variation in the event an employer instructs a variation during the Operation Service.[17] Even so, the power of the employer to control the works under construction is not limited.

There are two definitions of a variation under the FIDIC standard contracts. The first definition, under Clause 13 of the Red and MDB books, a variation is defined as any change to the works in which such an alteration is approved or instructed. The second definition, as stated in the Yellow, Silver, and Gold FIDIC books, a variation is any change to the works or the employer's requirements, as long as that change is approved or instructed as a variation. For better comprehension of both definitions, the FIDIC standard form of contracts go further to define the word 'works' which is the point of reference in the two distinct but interlinked definitions.

[17] FIDIC Red Book, 1999, Clause 13.1.

In the FIDIC contracts, the word 'works' is meant to refer to temporary works or permanent works whereby both are physical items and not a mere instruction for additional reporting. Even with a clear definition of the word 'works' the FIDIC contracts form of contracts do not explicitly distinguish which instructions constitute a change in works. This lack of clarity is the reason why it is apt to anticipate a court battle despite the existence of provisions on variations and how parties should act.[18]

Under FIDIC contacts the criterion for ascertaining whether an instruction amounts to a change in instruction is not straightforward. The provisions state that one will have to scrutinize and analyze the contract terms by focusing on the individual obligations that the contractor has to the employer before deciding whether the instructions given constitute a change.[19] It is only through the use of analytical skills that arbitrators can tell whether a contractor will need to be paid following an instruction. In the same vein, while the FIDIC contracts state that some instructions constitute a variation while others do not, they fail to provide exhaustive lists of what should be included in both categories. It follows that despite efforts to explain what a variation is, parties in a construction contract are likely to be at loggerhead with each other and might need arbitration due to a common interpretation of which instructions constitute a change of work and consequently a variation.

Throughout the FIDIC contracts, except the Silver Book, the power to initiate and effect a change in the contract is a reservation of an agent known as a contract administrator. It means that an employer will lack the mandate to directly instruct and will instead have to rely on the

[18] Baker (n 3) 117-118.
[19] Baker (n 3) 118.

services of a contract administrator. In case the employer goes ahead and gives instructions, they will be null and void and thus the contractor should ignore them. However, it is also worth noting that although the engineer has the power to initiate a variation by giving instructions, it is expected that the engineer only acts as the employer's direct agent and not in his capacity as an agent.

It is also a requirement in the Red, MDB, Yellow, and Gold books that the powers and limitations of the engineer to approve or initiate a variation must be captured in the contract and must comply with Sub-Clause 3.1[20]. Further, the forms also state that the employer is at liberty to place constraints that will require the contract administrator to seek the employer's approval prior to initiating or approving approvals as long as the constraints are specified. MDB goes further to state that an engineer must always seek the approval of an employer before instructing a variation except in two cases. In the first case, it should be clear that the variation is due to an emergency. In the second case, the engineer can do so if the variation is less than a certain percentage acceded to by the parties to the contract.[21] Sub-Clause 3.1 of the Red, MDB, Yellow, and Gold books seeks to protect the contractor in cases where the engineer gives instruction with or without consulting the employer. It asserts that if a contract administrator gives instructions without seeking the employer's approval, when he should, the contractor should comply and it will be assumed that it is the employer who provided the approval.[22]

FIDIC standard form of contracts also provide limitations for variation in an attempt to protect contractors and for the sake of fairness. Both the scope and time for instructing a variation are

[20] FIDIC Red Book, 1999, Sub-Clause 3.1
[21] Baker (n 3) 121.
[22] FIDIC Red Book, 1999, Sub-Clause 3.1.

limited under FIDIC contracts. In terms of scope, a contractor preserves the right to reject any variation that he deems to go beyond the scope of his contract. In such a case, the contractor must be compensated for the extra work covered due to the variation. Similarly, all FIDIC books have the latest time past which a variation should not be ordered. In the Red, Yellow, Silver, and MDB books, a contract administrator can initiate a variation any time just before a certificate of Taking-Over Certificate (TOC) is issued. After the issuance of a TOC, the contractor shall not be obliged to accept any additional work from the contract administrator. Similarly, in the Gold Book, the contractor ceases to accept variation immediately once the commissioning certificate is issued. However, the Gold Book allows the employer, through his agent, to ask the contractor to provide a proposal. On the other hand, the contractor will only be obliged to respond if he has already reached an agreement with the employer regarding the variation. These limitations deliberately reduce the power of the employer and his contractor in order to protect the contractor from unfair enrichment and extra costs.

While employers and contract managers are the ones known to have the power to vary, the contractor can also have the privilege to initiate a variation under FIDIC standard form of contracts. The right for a contractor to initiate a variation is captured in Sub-Clause 13.2.[23] The clause states that a contractor, on special grounds that are stated in the Sub-Clause, has the right to initiate a variation. The variation initiated by the contractor should be covered under Sub-Clause 13.2. Any proposal initiated by the contractor will be considered a variation if accepted by the contract manager even if it does not satisfy the requirements under Sub-Clause 13.2. The contractor will, however, not be entitled to additional funding as stipulated under Sub-

[23] FIDIC Red Book, 1999, Sub-Clause 13.2.

Clause 13.2 if the proposal for variation does not meet the requirements under Sub-Clause 13.2.[24] The fee act as an incentive for contractors to act in accordance with Sub-Clause 13.2.

All variations have time and cost consequences that parties to a contract must familiarize themselves with. The FIDIC standard contracts have specific provisions and clauses that address the time and cost consequences that provide guidance to protecting parties on what to expect in terms of time and cost. To begin with, Sub-Clause 13.3 which cites Clause 12 Red Book, and Sub-Clause 3.5 of the other FIDIC books provide direction on Contract Price. Subsequently, entitlement for an extension on completion time is addressed in Sub-Clause 8.4 lit. Complication sets in when addressing additional cost due to a variation as each book give a different outline. For instance, according to the Yellow Book, a contractor will only be entitled to additional pay and profit if the instructions by the engineer vary from the employer's requirements. No extra payment will be given if the instructions by the engineer fall within the employer's work. This provision provides the incentive for the employer to avoid going into details but instead set broad goals and targets so that the engineer can hardly go outside the scope of work when instructing. The FIDIC Red Book on the other hand refrains from addressing the issue of profits and instead directs that each variation be valued based on Clause 12.

Complications are created by the lack of consistency between Sub-Clause 8.4, Sub-Clause 13.3 Red Book, and Yellow Book. Sub-Clause 8.4, which refers to Sub-Clause 20.1 postulates that additional time and cost will be awarded subject to a prior notice that must be served before a

[24] Axel-Volkmar Jaeger and Götz-Sebastian Hök, *FIDIC - A Guide for Practitioners* (Springer Berlin Heidelberg 2010) 269.

given time.[25] The Red Book gives no further details except that every variation shall be assessed independently. In contrast, the Yellow Book instructs the employer or the engineer to do a variation of the cost and effect of the variation. It also states that cost effects and is not time-bound thus there should be no requirements. Instead of providing clear direction, the contradiction between the clause could further complicate issues and escalate a dispute.

The FIDIC contracts also provide direction and procedure to be followed when effecting variation. Despite slight complications brought about by some contradicting clauses in the provisions, the procedure is straightforward. The procedure is fo und in Sub-Clause 13.3 of the FIDIC books which consent on the way forward despite the differences in wording. The procedure begins with the contractor receiving an instruction that is considered a variation. The contractor then gives notice to the engineer detailing any objections or comments based on Sub-Clause 13.1[26]. The engineer will then decide either to confirm or reject the notice from the contractor. The contractor also has a choice to accept the instructions and executing them without notice.

Alternatively, the procedure might begin with the engineer or employer's agent requiring a contractor to offer a proposal before the issuance of a variation. Subsequently, the contractor will then respond with a written proposal in which he can state his reasons for not complying with the variation. However, the engineer can still go ahead and initiate the variation by instructing despite asking for a variation. After receiving a proposal from the contractor, the

[25] FIDIC Red Book, 1999, Sub-Clause 8.4.
[26] FIDIC Red Book, 1999, Clause 13.1.

engineer can approve or disapprove the proposal. Regardless of the engineer's decision, the contractor is not relieved of his duty as stated in the contract.[27]

Lastly, the FIDIC contracts also give insight into whether it is possible for a contractor to avoid variations. All the books clearly give the employer and the engineer extraordinary rights to variation. They can give instructions that lead to a variation and the contractor will have to execute as required. Since a contractor is bounded by the variation and might have adverse economic effects on them, contractors wish for minimum variation. However, all variations are irrevocable and thus it follows that the only way a contractor can avoid or reduce the likelihood of a variation is during the contract making stage. It is the contractor's duty to ensure that the provisions of a contract are clear and specific. This involves ensuring that clauses on quantities, price, requirements, and methods are not ambiguous. This is because most variations arise from a misunderstanding of requirements leading to omissions hence prompting the engineer to give further instructions.

2.3 Salient Difference and Similarities

Despite the difference in wording between UAE laws and the FIDIC standard form contracts, there are no significant differences on what amounts to a variation order between the two instruments. There are, however, salient similarities between the two because they are both dedicated towards achieving a common goal. The first similarity between the two sets of instruments is the implied intention to protect the employer. Although of the instruments explicitly state the need to protect the employer, both have neither clauses nor provisions that prioritize the interest of the employer over that of the contractor. For instance, under article

[27] Jaeger (n 24) 267.

886 (1) of the UAE Civil Transaction Code, the employer is protected from an increase in price under a lump sum contract, must be informed on time in case of a variation, and failure to do so leads to unpayable expenses for extra work, and can legally derive financial benefits without paying for already completed work, in case he learns that the contractor initiated a variation without informing him. In the same way, the employer and his agent are given unilateral right under FIDIC standard form of contracts. Even in instances when a contractor is required to hand in a proposal, the instructions from the employer and his agent are final and bounds the contractor. The second similarity between the two sets of instruments is that under both instruments, not every instruction does amount to a variation. It follows that in both, an instruction (e.g. some site instructions) can be given without necessarily leading to an initiation of a variation and, therefore, the requirements of the contract remain the same. A perfect example of this scenario is the case of *Neodox Limited* v *Swinton and Pendlebury Borough Council (1958)*[28]. In the case, the judge asserted that if a contract does not give the specific details on the methodology, it is difficult to ascertain that the instructions given by the engineer whose aim is to ensure that the work done satisfies his client, amounts to a variation. The case was ruled in favour of the employer.

Thirdly, in both sets of instruments, the best way a contractor can avoid variation is by ensuring that the specification and requirements of the contract are precise to avoid any ambiguity that might lead to omission thus calling for the need for a variation. Lastly, in both, while the employer has the right to vary, his power has a limit in terms of time and scope. An employer will not initiate a variation that goes above and beyond the scope of work without seeking fresh terms from the contractor. A classic example is the case of *Blue Circle*

[28] *Neodox Limited* v *Swinton and Pendlebury Borough Council (1958) 5 BLR 34* (United Kingdom High Court).

Industries v *Holland Dredging (1987) 37 BLR 40*.[29] In the case, the judge ruled in the contractor's favour that the creation of an artificial bird island was peculiar and totally separate from the original instruction and thus could be treated as a variation order.

[29] *Blue Circle Industries* v *Holland Dredging (1987) 37 BLR 40* (UK Court of Appeal).

3 Chapter 3: Reasons for Variation

While it is in the best interest of both parties to ensure that each party delivers on the obligations specified in the contract, variations are very difficult to avoid. Variations occur for many reasons and vary based on the complexity and size of the construction project. As mentioned earlier, large construction projects are susceptible to changes more than smaller construction projects since they are more complex, are likely to require splendid project management skills, and might call for efficient risk allocation and change management skills. As discussed earlier, variations might have devastating financial implications in terms of time wastage and costs that will be incurred by either of or both parties. For this reason, it is not only essential for parties to a contract to be able to distinguish changes that are considered to amount to a variation, but they should also know the specific factors and reasons that are likely to cause a variation. Thorough knowledge regarding variation management and a deep understanding of the variation clauses are essential for the parties to comprehend in order for them to have all the means that will assist them in achieving a successful project.

FIDIC contracts have specific clauses and provisions not only define variations but also give hint on who can initiate variation to the works. The same also applies to UAE laws. For this discussion, the reasons for variation will be discussed as external factors, technical innovation, employer's decisions and errors, and poor communication.

3.1 External Factors (Unprecedented and Unforeseen)

While the contracting parties, to a larger extend, have control over the contract and can avoid variation by making the contract as detailed as possible, a variation can still occur due to factors beyond the control of the parties. External factors are, therefore, those grounds that are beyond

the parties' control, which can cause delay or variation of any sort to a construction contract. These factors can also be categorized as either unprecedented or unforeseen factors. The former refers to events that could be happening for the first hence the obligor does not know how to deliver on his duty due to prior knowledge. Further, the event(s) could not be included in the contract since neither of the parties had any knowledge of the event and its likelihood to occur. On the other hand, the latter refers to events or circumstances of public nature which the two parties could not predict with precision during the contract-making process. Both the UAE laws and the FIDIC standard forms of contract have clauses that aim at protecting contractors from loss due to external factors as long as the contractor can prove that the loss or delay is indeed due to the external factor(s). Thus, events of force majeure fall under this category.

All countries and jurisdictions have clauses and provisions in their laws to guide contracting parties in case of events of force majeure. It is however worth noting that there is no universal definition of force majeure since each jurisdiction can have its definition and a list of an exhaustive or non-exhaustive list of what should amount to an event of force majeure. Despite the lack of a common definition, force majeure can be described as events or circumstances which are beyond the parties' control in a contract that impede the obligor's ability to fulfil the duties entrusted on them as per the specifications of the contract.[30] Both unprecedented and unforeseen factors are encapsulated in this broad definition. These events can further be categorized as acts of God, wars, radioactivity, and political factors among others. Under the FIDIC forms, a force majeure event is defined in clause 19 of the books. There are irreducible minimums that must be qualified for an event to befall under this category.

[30] The World Bank, "Sample Force Majeure Clauses" (*The World Bank* November 30, 2020) <https://ppp.worldbank.org/public-private-partnership/ppp-overview/practical-tools/checklists-and-risk-matrices/force-majeure-checklist/sample-clauses> accessed August 4, 2021.

The first category is that the event must qualify as an exception and should not be within the control of either of the parties involved in the contract. Secondly, it should be obvious neither of the parties could provide a solution or mitigation strategy prior to beginning or during the making of the contract. Thirdly, the affected party could do nothing to overcome the problem or its effects once it occurred. Lastly, none of the parties can reasonably attribute the occurrence of the event or circumstance to the other party.[31] If the event satisfies all the points that define a force majeure, then it will justly be described as an event that is considered to be a force majeure and can therefore be a reason for the variation.

Clauses 19.2, 19.3, and 19.4 go further to describe how parties should behave in case there is a force majeure event or external factors that affect the fulfilment of a contract. Parties, especially the contractor, should be aware of these in order to prevent possible losses due to the impact of such events on the contract. Clause 19.2 provides guidelines on how and when the force majeure event should be informed to the other party by the obligor. The clause states that the obligor has up to 14 days about the start of the event within which he should inform the other party of the event. He should also inform the party of the specific duties or obligations that he will be unable to complete. This should include detailed information such as the extent of the impact that the force majeure event has on the overall contract. After giving notice, the party expects to be relieved of their duties once it is ascertained that the event of force majeure has indeed prevented the party from delivering as per the requirements of the contract.[32] The subsequent chapters expound on how the affected party should act in the event of a force majeure circumstance, delay, and possible compensation.

[31] Ibid.
[32] William Godwin, *International Construction Contracts: A Handbook: With Commentary on the FIDIC Design-Build Forms* (Wiley-Blackwell, John Wiley And Sons Ltd; Chicester 2013) 72.

Clause 19.3 dictates that it is the duty of the party affected to ensure that it minimizes delays by all costs in case of a force majeure and that the party shall only give a notice to the other party once its common knowledge that it is not possible to continue fulfilling the obligations of the contract under the prevailing circumstances. Further, clause 19.4 lists the conditions that will necessitate a delay or compensation. For the affected party to be entitled to an extension, it must be impossible to complete work as required under the prevailing circumstance and must have given notice to the other party on time. Depending on the circumstances such as the type and nature of the event, the party might be compensated for the costs incurred or any losses accrued because of the force majeure event.[33] The FIDIC contracts also go further to outline circumstances under which the parties can be relieved of their duties and contract terminated due to an event or a circumstance that is considered to be a force majeure.

Clause 19.6 asserts that the contracting parties should be relieved of their duties if the effects of the force majeure events have prolonged and thus it is not possible for the parties to continue with their duties. There are, however, conditions and a timeline to this. The first condition is that the party, who was affected, must have given the other party a notice that has lasted for 84 days or for a number of periods adding up to 140 days of notification of the force majeure. Subsequently, either of the parties can give the other a termination notice which will be effected seven days after it has been issued. Upon the termination, the contractor should hand over all materials and property he has been compensated for, cease further operation, remove his equipment and machinery except if they must be left on the site for safety or security purposes, and lastly should vacate the site and the employer should take charge. Clause 19.7 echoes the procedures and guidelines stipulated in clause 19.6 and aims to ensure that the contracting

[33] Godwin (n 32) 72.

parties are legally released from performance.[34] These guidelines also apply to all events that qualify as force majeure, which are external factors and can be classified under different categories such as natural forces and political forces among others.

Just like FIDIC contracts, the UAE laws have several articles under the Civil Code that are dedicated to providing direction and guidelines regarding the external forces that can result in variation and how parties should manoeuvre through such situations. Under UAE laws, external forces that might cause variation are classified either as force majeure or unforeseen circumstances. Article 249 of the Civil Code provides that a variation will be necessitated by an exceptional event that is considered to be of a public nature that could not have been reasonably foreseen by the parties during the making of the contract. It is not a must that the event or circumstance makes the work impossible for it to qualify as an external factor, but it will be deemed so as long as it makes the work onerous to the extent that the obligor risks grave losses. Under such circumstances, the UAE laws expect the judge or arbitration tribunal to come up with a solution that will make the work less onerous and protect both parties from losses. Unlike force majeure, unforeseen emergency does not render the work impossible to complete and does not lead to termination but only makes the work onerous. In such cases, courts should only help parties revise the terms of the contract so that fulfilling the obligations become less strenuous given the prevailing circumstances.

A further list of events that qualify as extraneous causes of a contract variation is listed in article 287 of the Civil Code. The list includes sudden incidents, acts of third parties, the obligor suffering harm, events of force majeure, and natural events. In all these events, the obligor must prove that indeed the incidents led to loss and that he was not responsible for causing the event

[34] Godwin (n 32) 73.

or incident. Lastly, article 894 protects the contractor in case the abovementioned extraneous events result in a stoppage. It states that in such cases, the contractor is entitled to a payment of the same amount as the benefit that the employer will derive from the work completed.[35] While there is no exhaustive list of extraneous factors that can be a reason for variation, they can be categorized for ease of understanding.

The first category of external factors that can necessitate a variation of construction is natural disasters or acts of God. These are events that take place due to natural forces or forces of nature. These may include floods, earthquakes, extreme weather conditions, drought, hurricanes, and ground conditions among others. However, a mere occurrence of the events is not enough to necessitate a variation. The contractor bears the burden of proof, and he must prove, based on balance of probability, that the events made it impossible for the construction work to be completed. Part of the proof includes timely notification of the events and their impact on the construction project. Other force majeure events can be categorized as political. This category of external factors includes events such as industrial action, demonstrations that are not caused by the employer or the contractor, labour disputes, lockouts, and work stoppages relating to work policy, embargo, terrorism, insurrections, and public disorder among others. Still under this category is legislation that has been passed by a competent authority whose implementation came into effect after the two parties have signed an agreement. The last category of external factors that can cause a variation include explosions, breakage of equipment, and contamination that is not caused by either of the parties, their agents, subcontractors, or employees. It is, however, worth noting that the breakage of a plant or equipment will not be regarded as a force majeure event if the breakage was caused by the

[35] Nicholas Kramer, Paul Stothard and Aarti Thadani, "United Arab Emirates: Construction Force Majeure and Alternative Relief" (*https://www.nortonrosefulbright.com/it-it/knowledge/publications/2020/q2*2020) <https://www.nortonrosefulbright.com/it-it/knowledge/publications/8d9e67dd/united-arab-emirates-relief-provisions-in-construction-contract-suites> accessed October 6, 2021.

contractor and thus the law does not order a variation in such a case.[36] The list, herein, is not exhaustive and thus jurisdictions can decide what to add or subtract depending on the circumstances and specifications of the contract.

3.2 Technical Innovations

In the contemporary world, technology and innovation are crucial for every aspect of life. Even companies that have adopted the latest technologies and innovations available in the niches are better placed if they are always willing to embrace emerging and disruptive technologies and innovations that will make their works more efficient. This is because technology is dynamic and changes a lot. The current novel innovation could be considered obsolete the next minute. In the same way, construction projects are also likely to be affected by technological changes. It is likely that newer and better technology can be developed while a project is ongoing. Although parties might have agreed to complete the project with the help of a given set of technologies and innovations, there might be a need for the parties to accommodate newer and more efficient technical innovations. For these reasons, technical innovations are considered one of the major causes of variations in projects. The variation instigated by a change in technology is likely to be due to the need for better and more advanced methods and procedures to be adopted in the place of initially recommended methods and procedures that are now obsolete.

If a project's plan is not flexible enough to accommodate an emerging technical innovation, then there is a high likelihood that the emergence of an appropriate and more efficient technology might lead to a variation of project methods and procedures.[37] The primary reason

[36] World Bank (n 30).
[37] Noraziah Mohammad, Adi Irfan Che Ani and Riza Atiq OK Rakmat, "Causes and Effects of Variation Orders in the Construction of Terrace Housing Projects: A Case Study in the State of Selangor, Malaysia" (2017) 6 Int. J Sup. Chain. Mgt 226.

why technology instigates a variation is the need to improve different aspects of a construction project. There are so many grounds on which a contractor might want to change the agreed construction methods and procedures. The first reason is cost. A newer and cheaper technology, which might not have existed during the contract-making process, may be available. In such a case, the contractor might be forced to abandon previously agreed construction methods and processes in order to cut down on expenditure. The same applies to time and speed. A contractor might be forced to adopt a newer technology that will accelerate the project. There are also other factors that affect the likelihood of a construction project being affected by newer technical innovations. This includes the complexity of designs, the size of the project, and consultations.

The first aspect of a project that is likely to be affected by some technical innovations is the complexity of the project. Parties involved in a complex project should expect to have to vary designs, methods, procedures, and implementation from time to time by utilizing the latest and most efficient technical innovations. Further, a complex project is likely to take more time to complete.[38] This means that a range of technical innovations that might affect procedures and other different aspects of construction are likely to be developed during the construction period. Parties to a contract should be flexible enough to accept newer innovations that will help tackle the complexity of the designs using the latest and most efficient technical innovations. Change initiated by technical innovations on complex projects is likely to accelerate the completion of a project, reduce costs, and increase safety measures. Another aspect of a project that is equally important and is likely to make a project susceptible to disruptive technologies is the size of the project.

[38] Ibid 227.

Incorporating newer technical innovations on a large construction project is normal. This is because the size of a project is directly proportional to the likelihood of variability due to several factors such as the number of stakeholders and their interests, time of completion, preferences for methods and processes, and complexity.[39] Since large projects are likely to be delayed due to numerous variations that will slow down the project, there is no way the contracting parties will refuse to adopt a technical innovation that will accelerate the construction processes. Technical innovation which may lead to a variation in terms of methods, processes, and designs might be initiated by third parties and other stakeholders. For instance, for the sake of improvement of design, the client through consultation might change the design of a project, in such a case, the contractor might be compelled to go for a technical innovation that will be more efficient in terms of speed and efficiency.

3.3 Employer's Decisions and or Errors

Under both the UAE laws and the FIDIC contracts, the employers are given the discretion to give instructions that are likely to lead to a variation. These laws and contracts seek to protect the employer by putting him at the helm of decision-making during the construction process. The laws give employers the power to instruct changes on the construction projects and the contractors are expected to adhere to such directions. If the instructions by the employer could result in additional work or might go beyond the scope of work as described in any of the books, then a variation will be deemed to have occurred. However, not all variations initiated by the employer results from instructions as some might happen due to errors by the employer. FIDIC Clause 13.1 to 13.3 gives the employer the right to initiate variation of any type. Clause 13.1 provides that an employer holds a right to initiate a variation of any type and that the

[39] Noraziah Mohammad, Adi Irfan Che Ani and Riza Atiq OK Rakmat, "Causes and Effects of Variation Orders in the Construction of Terrace Housing Projects: A Case Study in the State of Selangor, Malaysia" (2017) 6 Int. J Sup. Chain. Mgt 227.

contractor is expected not to object. The employer is likely to use this power for three main reasons. The employer does not use this right for the sake of exercising power but does for many reasons which are often good-intentioned.

For the sake of this discussion, we will categorize the reasons for variation as initiated by the employer as an instruction to change the following: work method, comply with legislation requirements, an extension of time and acceleration, correct defects, quantities, alternative materials. In the processes, the employer may also make errors that will amount to variation as well. This can be summed as the quest for perfection and giving of finer or further details on the construction project as perceived by the employer.

To begin with, the employer might give instructions on changes that will require the contractor to use more or fewer materials that were previously stated in the bills of quantities (BOQ). If the difference in the quantity of materials used is not within the estimates previously agreed, then it means that the instructions will have amounted to a variation and thus the contractor will be compensated for the extra materials used. In the same line, while a contractor cannot substitute the type of materials stated in the bills of quantities with materials he believes will be beneficial to the employer, the contrary is actually possible.[40] The employer can decide to change the type of material used as long as he can compensate for any losses incurred by the contractor.

Employers usually give instructions in case of omissions or to rectify defective work. Once it is clear that the contractor did not completely work as stipulated in the contract or there are omissions, the employer will order the contractor to fix the discrepancies so that the work is

[40] Julian Bailey, *Construction Law*, vols. I, II & III (1st edn., Routledge 2011) 554.

delivered as previously agreed upon by the parties. Essentially it is important to point out that in such a case, the contractor will not be entitled to any compensation since the employer was forced to order a variation due to substandard work from the contractor. Also related to this is an order by the employer to change the methods and processes. The employer, on realizing that there are better methods and processes to complete the construction works has a right to initiate a variation through any of the procedures initially discussed. However, in this second case, the contractor is entitled to compensation even if there are enough reasons to believe that the methods and procedures used by the contractor are not suitable. This is especially the case when the current method was earlier on acceded to by both parties as to the mainstay or only way for completing the construction project.[41] In such cases, it can be argued that the employer is getting into a new contract with the contractor and thus amounting to a variation that requires discussion or fresh terms on some aspects of the contract.

Lastly, there are multiple reasons that might inspire the contractor to order for a variation of work in a construction project. Just to name a few, this may include clearer designs and specifications, change of quality, scope, and errors arising from issues such as poor knowledge of methods, procedures, equipment, and materials among others by an employer is novice in construction works.[42] In all these cases, it is important to know whether the contractor is entitled for pay. The FIDIC contracts suggest that the best way to establish this is by checking whether the instructions given deviates from those terms in the contract. It is clear that employers are usually the initiators of variations.

[41] Ibid 556.
[42] Mohammed (n 37) 227.

3.4 Lack of Communication

Just like in any work done in a multi-player environment, proper and effective communication is key in the implementation of a construction project. The stakes are even higher in a construction project since lack of communication or poor coordination might lead to costly variations. For this reason, the relevant laws have put forward communication channels and procedures that the parties of a construction contract are expected to utilize so that they avoid variations that are caused by poor or lack of communication. This communication procedure, as captured in the FIDIC contracts, give directions on the protocols that must be followed when giving instructions and whether or not there should be a reply from the other party. Despite such efforts, the problems of miscommunication between employers and contractors is rampant. There are different forms of lack of communication or poor communication can be viewed and analyzed on different lenses which includes but not limited to discrepancy between documents, errors and omissions, coordination and insufficient detail.

At construction site, miscommunication begins with discrepancies between two documents. If there are discrepancies between two construction documents, then there is high likelihood that the contractor will misinterpret the details of the contract thus leading to a variation. For these reasons, contract documents should be precise and clear. Furthermore, it is recommended that the documents are harmonized such that they do not exhibit any discrepancies. The contractor and the employer should also have seamless communication to make sure that the contractor comprehend the instructions. In the same line, a variation might exist due to insufficient details in the contract. In such cases, the contractor might fail to understand what the employer intended to achieve. Another form of miscommunication is errors and omission. Omissions and errors may lead to delays and variations which might result to the need for compensation.[43]

[43] Ibid.

4 Chapter 4: Right to Vary

The right to vary is an extraordinary right that might have far-reaching consequences on the affected party. However, it is something that is difficult to avoid especially when huge and complex construction projects are involved. Since variations can be costly and delaying, it is critical for contract parties to understand who has the legal authority to vary works or initiate a variation order to change the works. The parties should also know their legal powers and the limitation of such powers when ordering variations. For this reason, FIDIC standard contracts have provisions and clauses that describe the different powers entrusted to the parties when it comes to issuing a variation order. In the same line, the UAE law has also made it clear in its articles about who has the right to vary works under a construction contract. Moreover, FIDIC standard contracts, especially the Red Book, is heavily used in the UAE as a main reference when drafting a construction contract. For the purpose of this discussion, we will discuss the power to vary as entrusted to the employer, engineer (contract administrator/agent), and the contractor.

4.1 The employer

Initially, it was the Engineer's responsibility to value and instruct variations along with the participation of the Contractor. However, due to many complex reasons, the Employer started to get deeply involved by the 1999 FIDIC standard contracts unlike the previous FIDIC standard contract editions. Presently, the employer, just like the engineer, is regularly involved in the process of applying and ordering of variations. The mainstay rationale behind this shift is that the employer, whether the owner of the project, representative a company, or public authority, faces increasing requirements to ensure that money expenditure on construction

projects as well as budgets are expected to not exceed the expected budget that was anticipated since the beginning of the project without a reasonable justification. This right of the employer to vary must be derived from the contract between the contracting parties and the employer must exercise the powers within the contract to protect the contractor.

When the contract is being drafted, there is the need to give employers as much power as possible by putting limited or no restrictions for obvious reasons. Apart from accountability as discussed above, the other main reason is the need to allow flexibility on the employer's side. For instance, in case of emergencies, unforeseen circumstances, natural disasters, and financial needs among other unexpected problems, it is appropriate that the employer has the power to make variations that will help the project achieve its main objectives. The employer's right to vary enables him to go beyond changing permanent works to changing other aspects of work such as methods, procedures, and working site and environment.

A non-exhaustive list of variations that might be instructed by the employer are listed in clause 5.1 of the JCT Standard Building Contract 2011 and includes different modifications, additions, and alterations that might result to change in quality, quantity, and design of the initial plan. This includes substitution of materials, change in quality of the materials to be used, and omission and addition of certain works. The employer's rights also extend to other aspects such as limitation of working hours, and space and site accessibility or putting certain sites under use.[44] This is not the only list of the aspects of work that the employer can order a variation.

[44] William Godwin, *International Construction Contracts: A Handbook: With Commentary on the FIDIC Design-Build Forms* (Wiley-Blackwell, John Wiley And Sons Ltd; Chicester 2013) 130.

Another non-exhaustive list of variations that an employer may order is contained in clause 13.1 of the FIDIC Red Book 1999. The first category includes the change in quantity of work. It is, however, worth noting that not all changes in quantity of work will amount to a variation. The second change is about the quality of materials, equipment, or any other aspect of work. The third change is on levels and positions of work while the fourth change describe the employer's power when it comes to omission of work. The fifth and sixth category of works that can be varied as per the clause are adding work and adjusting the schedule respectively. From these two lists, it is clear that the employer's right transcends the mere act of making alterations to whatever has been delivered by the contractor. This is because the power includes but is not limited to changing the approach, method and procedure, as well as controlling the working environment.[45] The contract can however put some limitations on the power of the employer especially by allocating some risks to the contractor.

Through risk allocation, the contract might limit the power of the employer to control the working environment and control the methods and procedures by apportioning such risks and responsibilities to the contractor. One way of doing so is having a contract scope that is less detailed in that it only describes the permanent work that the contractor is expected to deliver but deliberately ignores the need to specify the methodology and procedures that is expected from the contractor to deliver. Such contracts may not have a list of any aspect of the work to be done that might have to be changed. In such a case, the contractor is at liberty to use whatever methods he deems appropriate to realize the final product. It will be unreasonable on the employer's side if he chooses to try to change the method and other aspects of work when he knows pretty well the risks of such changes are the contractors. It will be, therefore, necessary

[45] Michael Sergeant and Max Wieliczko, *Construction Contract Variations* (Informa Law From Routledge 2014) 131.

that the employer exercise his right to vary by acting within the implied limitations specified in the contract and allowing the contractor to play his part.[46] Some variation clauses might be drafted in such a way that they allow the contractor to reject the application of any variations that can be deemed as unreasonable or impractical.

Usually, the contractor accepts the employer's variation orders, however, there are some instances where the contractor rejects such variations. In certain contracts, a variation clause may empower the contractor to refuse certain changes given the prevailing circumstances. However, the reasons for refusing to undertake the variation as ordered by the employer must be backed up with sound reasons. Some of the claims that will be deemed reasonable include insecurity and difficulty in accessing certain resources and equipment. Further, in such cases, the contractor will be given up to a given time of the variation being given to have communicated back to the employer and state his reasons for refusal to complete the variation. This power to object might also be limited depending on the type and nature of instructions which are ordered by the employer. For example, the contractor's right to object a variation instructed by the employer, as outlined in the JCT Standard Building Contract 2011, will only be limited to variation on site conditions. Such rights are null and void when it comes to instructions relating to the work being done. The intention is to ensure that the employer is in control of the works so that the employer achieves the objective of the construction project.[47] The employer's right to vary will not be limited to variation clauses only, but there can be other provisions that outline the right of the employer to vary.

[46] Ibid 131.
[47] Michael Sergeant and Max Wieliczko, *Construction Contract Variations* (Informa Law From Routledge 2014) 132.

For further clarification on the employer's right to vary, parties to contract can outline additional rights of the employer to vary in other provisions of the contract other than the variation clauses. In such cases, the provisions will outline the employer's right to give instructions that alter the method, procedures, and ways in which work is done without interfering with the permanent works to be undertaken by the contractor. These types of provisions intend to give the employer power to alter the works or how work is done in a way that the contractor might not request for extra payment or extension of time as it is usually the case in most variations.

The clauses might also assert that the employer have a right to initiate certain changes, which do not necessarily amount to variation, that the contractor agrees to and the additional costs and delays will be negotiated by the two parties. This includes giving instructions that alter the working sequence and procedure of the contractor by invoking contractual powers that are distinct from those listed under the variation mechanism. Other contracts might have provisions that give the employer the right to vary due to specific events such as unpredicted and unforeseen circumstances. Under this provision, the contractor might be entitled to compensation even when no instructions or directives were given. If a contract contains such additional provisions, there is need to note the clause or provisions under which the instructions were given to avoid future disputes on compensation of extra work done by the contractor.[48] Lack of clarity on the boundaries of the employer's power, especially when a contractor is involved usually results in confusion that might lead to disputes. Although the employer can still order variation through the engineer under the FIDIC 1999, specifically in the Particular Conditions, there are supplementary provisions that expressly restricts the Engineer from

[48] Ibid.

ordering and approving a variation without the prior approval and authority of the Employer.[49] Consequently, most contractors are hesitant to proceed with a variation ordered by an engineer unless they have the backing of the employer.

The increasing involvement of the employer in ordering variation sometimes leads to complications such as delays and possibly contract claims by the contractor. Based on the aforesaid, in order for the employer to be entitled to variation, an express provision should be included in the contract. If there is no provision, then contractor will not be required to perform any variation order or instructions supplied to him by the employer and his engineer that might require him to apply any additions or variations to the work as well as any omissions to the works.[50] This situation is an example of how the power of an employer might be limited by certain clauses in the contract. There are many such examples in real life.

A good example of the aforesaid that might display a position, at least in respect to fixed price contracts concerning claimed omissions of construction work, is the case *SWI Ltd v. P&I Data Services Ltd*[51]. In this case, SWI Ltd subcontracted with P&I Ltd for the execution of construction works and of which the subcontract mentions that the payment for such works that were highlighted on the tender documents will be paid for a specific price. Upon completing the work, SWI Ltd provides six invoices with a sum of £51,114.66 to P&I Ltd for compensation.[52] However, the latter neither responds nor pays and thus SWI takes the proceeding before the court in regard to this issue. P&I responded that payments were not made

[49] Michael D Robinson, *An Employer's and Engineer's Guide to the FIDIC Conditions of Contract Robinson/an Employer's and Engineer's Guide to the FIDIC Conditions of Contract* (Oxford John Wiley & Sons 2013) 44.
[50] Bailey (n 40) 132.
[51] *SWI Ltd* v *P&I Data Services Ltd [2007] EWCA Civ 663, [2007] BLR 430* (UK Court of Appeal).
[52] *SWI Ltd* v *P&I Data Services Ltd [2007] EWCA Civ 663; [2007] BLR 430* (UK Court of Appeal).

because SWI did not perform all the works which they had charged for. At the Court of First Instance the judge ruled that SWI has performed all the works and were entitled to payment of the full amount and that the subcontracts, which were fixed price contracts, that were between the two companies in which SWI have completed considerable part of the works. However, a joint expert was summoned in order to value the work that was completed by SWI and it was decided that SWI had underperformed and that the completed work amount to £40,000.[53] P&I appealed and the case proceeded before the Court of Appeal. While appealing P&I claimed that the subcontracts were paid based on interim payments in accordance to the valuations of the works that were completed, the Court of Appeal backed the argument that was provided by P&I which mentioned that the subcontracts were found and considered to be contracts based on unit prices. On the other hand, that it was SWI's responsibility to be mindful that the works under the contract could be varied by P&I's employer; hence, it was necessary for the subcontract to provide a term to that regard that P&I will be entitled to adjust the prices that were mentioned subject to the variations that were applied. Granting that the payments were made based on monthly measurements; however, unit rates cannot be applied because the subcontract did not provide any rates. The work that has been completed as well as the percentage of the price quoted were the only two amounts that were able to be calculated, plus some invoices supported that.

Nevertheless, it was clear that the subcontracts were considered to be fixed price contracts, regardless of whether there was a term in the contract that entitles P&I to apply variations to the works in case if the employer insisted on such variations. A term that clearly provides that the works which will be executed shall possibly be varied and that the prices may be altered in connection to the variations was not conveyed in the subcontracts, thus a term that concerning

[53] Ibid.

a reduction in price cannot be implied.[54] From the ruling, it is evident employer have the right to vary. However, this should be clarified in the contract in order to protect the contractor from exploitation in terms of doing unpaid work as well as unnecessary delays.

The power of the employer to vary can be defined as unlimited while those of the contractor to refuse a variation is highly limited. Some employers might take advantage of contractors and thus there is need to protect the contractor in certain circumstances. There are two main circumstances and situations in which the contractor can legally refuse to act on a variation order given directly by an employer or his representative. The first circumstance is when the employer gives a variation instruction to change certain aspect of the works, yet the kind of change initiated is not within the variation powers described in the variation power clause or provision in the contract. This also include the employer not following the channels of issuing instructions as per the contract. In such situations, the contractor has two options. The first option is to refuse to complete the varied work. The second option is to agree to doing the work but must be compensated. If the contractor chooses the second option, he will be deemed to have refused to use his legal right to object the variation instruction.

The second instance in which the employers right to vary is limited when the practical work is completed. The employer's right, however excessive, is only limited to when the construction work is on-going. Upon completion of the practical right, the employer can only order the contractor to correct defects and other tasks but might not order variations such as change of

[54] Ibid.

design.[55] This limitation of the employer's power to vary rightfully protects the contractor from exploitation.

4.2 The Engineer

Apart from the parties to a contract, in some circumstances the contract may require that a third non-party member administers the contract on behalf of the employer. This third party can be also known as the engineer or the employer's representative. This a common practice in common law jurisdictions and can also be found in FIDIC standard forms of contracts. Under common law, the engineer is expected to act both as the representative of the employer as well as a contract administrator, an impartial figure who also helped in solving disputes. The case of *Sutcliffe v. Thackrath* describes the expected behaviour and characteristic of the engineer under common law. In the case, it was ruled that the employer will choose an engineer who is not only a skilled expert, but who will listen to the employer's and his contractor's cases and make fair and unbiased decisions.[56] This will be achieved by finding the right balance between the cases petitioned by both parties.

The current engineer, as described in the FIDIC contracts, is not expected to be impartial but must be fair. If an engineer acts in a way that might be considered unfair to the contractor, the contractor will have the right to sue the engineer for wrongful interference. This is because there is implied impartiality on the engineer's side under common law.[57] Further, the mediation of the engineer in times of disputes is also not final, the disagreeing parties might seek the help

[55] Bailey (n 40) 560.
[56] *Sutcliffe* v *Thackrah and others, [1974] AC 727 et seq* (UK Court of Appeal).
[57] Jaeger (n 24) 221.

of an arbitration tribunal. The powers of the engineer when it comes to ordering a variation is as discussed in the subsequent paragraphs.

In FIDIC standard forms of contract, apart from the Silver Book, the power to order a variation is a reserve of the engineer who is the contract administrator. The books state that the employer cannot directly order a variation and must only do so through the contract administrator. Particularly, the Yellow Book asserts that the employer must appoint an engineer, who must not be a party to the contract, to perform the role as a contract administrator. However, it is also worth noting that the contract administrator gives orders, not in his own capacity, but as an agent of the employer. Furthermore, according to sub-clause 3.1, the engineer does not have the authority to change the contract but should only act and order a variation in accordance with the express power of the contract that is taking place between the employer and the contractor. This sub-clause also argues that the powers and limitations of the engineer to order a variation should be made explicit in the contract. Therefore, the engineer is expected to act on behalf of the employer who has the discretion to decide upon the powers and the authority of the engineer while making the contract.

While the books may restrict the employer from making a variation and instead empower the engineer, the powers of the engineer can be limited by the employer. This is especially the case in cases where the relationship between the engineer and the employer can be described as direct-agency role. In such cases, the employer is entitled to restrict the powers of the engineer by demanding that the engineer does not order a variation or approve one without consulting the employer. This might not be in all variations by the selected few that the employer deems necessary and thus puts limitations on the engineer's authority. The FIDIC books require the

employer to have such restrictions on the engineer's power documented in Particular Conditions. However, the MDB Book provides some two exceptions. Firstly, it asserts that the engineer should be allowed to order a variation even without seeking the consent of the employer if the variation qualifies to be an emergency. As such, it helps in preventing time wastage as seeking the employer's consent might take some time thus leading to delays.

Secondly, the engineer is allowed to order a variation that does not exceed a given amount specified contract data. Sometimes the contractor may never know which instructions from the contractor have been approved by the employer and which ones have not and thus there is need for protecting the contractor from a possible conflict between the engineer and the employer.

While the engineer might not be allowed to give a variation in certain cases without getting the prior approval of the employer, it is expected that the contractor shall follow the instructions given to him by the engineer since the contractor can only object under limited circumstances. In certain situations, the contractor might have varied the work following instructions from the engineer, yet the engineer did not get approval from the employer. A contractor who finds himself in such a situation deserves protection. Their remuneration should be guaranteed and delay that such variations cause should be considered. The FIDIC books, in sub-clause 3.1 of the Red, Yellow, MDB, and Gold books, aim to provide protection to contractors who find themselves in such situations. In the sub-clause, it is provided that if the engineer gives instruction that amount to a variation without consulting the employer and the contractor executes the instructions, it will be assumed that the employer gave the approval even if he did not and the situation required his approval, hence, the contractor shall receive payment for the work that he will have done. The contractor will also qualify for extension in case the variation leads to delays thus affecting the set deadline. It is however worth noting that most roles of the

engineer at a construction site are very much the same as those of the employer except that the engineer is not acting in his own capacity.

Since the engineer is a representative of the employer, the types of works that he can vary are pretty much the same as those of the employer discussed earlier. These include alteration of quantities, method, omissions among others. When it comes to omission of works for instance, the engineer, according to the Red Book and MDB, can omit any work save for those works that are supposed to be completed by others. When it comes to changing the sequence and adjusting deadlines, the engineer, as a representative of the employer, is allowed to give instructions that will alter the timing and sequence of works. The rationale behind this is that the engineer might be instructing the work because the employer wants to make amendments and is willing to meet any costs arising from a variation. Despite this power to vary, the engineer is not allowed to initiate a variation that will force the contractor to complete any works ahead of the schedule that was agreed upon as per the contract.

On change in methods of construction, the engineer is prohibited to initiate any change because methods are issues that are supposed to be decided by the contractor. The engineer will only be allowed to make changes that relate to temporary works since such changes squarely falls under the definition of variation.[58] The contractor will then be expected to execute the variation order unless they have a good reason not to.

[58] Baker (n 3) 123.

The contractor has duty to accept each valid variation ordered by the engineer. However, all FIDIC books give limited situations and circumstances upon which the contractor may refuse to accept a variation instruction given by an engineer. Sub-clause 13.1 of all the books cite inability to access the required materials that will be used to execute the variation as the common ground on which the contractor should dismiss a variation instruction. The MDB gives an additional ground by asserting that a contractor can dismiss a variation instruction from an engineer if it is apparent that the variation will instigate significant changes in the sequence and progress of works. The contractor who is reluctant to execute a variation on any ground is supposed to give the engineer a notice of objection and the notice will either be confirmed, rejected, or the variation will be varied.

Further, the governing laws also limits the power of an employer to instruct a variation on two main grounds. The first ground is in relation to the scope of work. Under common law jurisdictions for instance, the law allows the contractor to refuse to execute a variation order by the engineer if such variation is considered to be past the agreed scope of work which was stated in the contract. Alternatively, the contractor may agree to execute the work but must be compensated according to fresh terms that will be negotiated. The ruling, whose precedent governs such cases in common law jurisdiction, was given by the judge who presided over the ruling of *Thorn v. London Corporation*[59], in the ruling, the Lord chancellor argued that every additional work must either be works that have been discussed in the contract or those that have not been contemplated by any variation clause in the contract.[60] If the works fall within the kind of works discussed in the contract, then the contractor will execute the works and the

[59] *Thorn v London Corp (1876) 1 App Cas 120,* (House of Lords).

[60] *Thorn v London Corp (1876) 1 App Cas 120,* (UK Court of Appeal).

payment shall be in accordance to the prices and terms provided in the contract. However, if the work is beyond the scope of works discussed in the contract, then there are two ways the contractor should go about. The first option will be to refuse to execute the work because it is not what he is expected to do according to the contract.[61] The alternative course of action will be that the parties contemplate afresh on the terms and prices upon which the contractor will be compensated for executing the work.

Lastly, the FIDIC books also limit the power of the engineer to vary when it comes to the timing of a variation order. The books, save for the Gold Book, provide that the engineer cannot give a variation order after the issuance of the TOC. In essence, this implies that the books consent that the engineer can rightfully order a variation while the works are in progress.

4.3 The Contractor

The contractor hardly has any powers to vary the works, unlike the employer and the engineer. The contractor is expected to receive orders from the employer and or his administrator and act accordingly. The contractor is only entitled to seek an extension of time, adjustment of payment, or objectively reject the variation order by citing reasonable grounds for the same. Despite the law being clear on this, the contractor still has a small window through which he can order a variation, however, the employer and the engineer are not required to accept the contractor's proposal.

[61] Baker (n 3) 125-126.

Most, if not all contracts only have provisions that describe the employers' and engineers' powers to vary. Despite this commonality, it is not strange to find contracts that have provisions that encourage the contractors to suggest a variation to the work being done. One such case is when the contractor is empowered not to give a variation instruction but to suggest a beneficial variation to any aspect of the work being done. In such a case, the employer or the engineer will not be obliged to order the implementation of the variation but will be at liberty to accept or dismiss it altogether. Another rare incident when a contractor is technically unable to execute his work or can execute his work, but it will be exceedingly expensive and time consuming unless a variation is given. In such a case, employer may, depending on the terms of the contract and in line with his implied duty to collaborate with the contractor to fulfil the requirement of the contract, be required to instruct a variation that will remove the hindrance so that the contactor does no struggle to execute the works. Lastly, the contractor might be entrusted design and build obligations. In such circumstances, the contractor might be given the right to vary as long as the variation does not contradict his contractual duties.

There is, however, the need to emphasize that not all variations by the contractor will require them to ask for extension of time and extra remuneration. This is because most variations ordered by the contractor only seek to help them execute their contractual duties in more efficient and economic manner by removing technical hindrances or reducing expenses.[62] The contractor is also encouraged to initiate a variation that aim at benefiting the employer by either reducing cost, improving the quality of work or accelerating completion.

[62] Bailey (n 40) 560.

Under FIDIC Sub-Clause 13.2 which addresses value engineering, the sub-clause encourages the contractor to provide a proposal that he believes will benefit the employer in four ways. Firstly, the proposal could accelerate the completion of works and thus the project will be handed over to the employer on time of ahead of the schedule. Secondly, the proposal could result to a reduction in employer's cost when it comes to executing or maintaining the project. Thirdly, the contractor's proposal can suggest an improvement on the value of or efficiency of the works that will be handed over to the employer upon completion. Lastly, the proposal should be beneficial to the employer in any way. A fifth and additional category is found in the Gold Book which states that a contractor can initiate a proposal that he believes will improve the efficiency of the Operation Service.[63] Whilst the proposal intends to benefit the employer, the costs are to be met by the contractor.

In all the books, except the Red Book and MDB, the provisions do not provide any incentive or motivation that will encourage the contractor to initiate one. Firstly, the contractor is expected to come up with the initiative and prepare the proposal at his own cost. The other books except the two mentioned above are clear that the cost is to be met by the contractor. The Red Book and MDB on the other hand provide some incentive since they assert that the cost of preparing the proposal will be shared by both the contractor and the employer. Secondly, the proposal will not be beneficial to the contractor in any way since the timing and costs of any initiative should seek to benefit the employer and not the contractor in any way.[64] The lack of incentives and motivation explain the reasons why most contractors do not initiate such proposals.

[63] Baker (n 3) 129.
[64] Baker (n 3) 129.

In summary, the contractor's power and right to vary are only limited to the abovementioned instances and circumstances. In general, contractors are expected to either act to variation orders or refuse to accept the variation order and giving reasons for the same.

5 Chapter 5: Limitations and Restrictions When Engineer Can Issue a Variation

While the law tends to empower the engineer and the employer to give instructions that can lead to a variation for obvious reasons, these powers and rights are not without limits. The law imposes limitations in order to protect the contactor who often has limited power to either order variations or repudiate any variation instructions given by the engineer. There are four main situations and circumstances under which an engineer's right to vary can be limited. These include after taking over certificate, giving orders that might change the scope of works, giving variation outside the engineer's actual and/or ostensible authority, and instructing a variation order that omits works in order to give it to another Contractor.

5.1 Taking over Certificate (TOC) and Implication of the Law

A Taking Over Certificate (TOC) is a certification by the engineer to the employer in acknowledgement that the contractor has, to a large extent, completed the part or the entire work which is now safe for occupation. It is not necessarily required that the work is 100% complete before issuance of a Taking Over Certificate (TOC). For this reason, it is recommended that all the works that have not been finished be indicated in the Taking Over Certificate (TOC). This should include the expected deadlines when the contractor will complete the work. Once a TOC has been issued, the contractor enjoys benefits certain benefits which include the fact that the engineer cannot give variation order. The engineer's power will only be limited to ordering the completion of the works that are yet to be finished. The next period after the issuance of a TOC is the Defect Notification Period.

Whilst it is a common practice for contracts to empower the engineer to give variation instructions while the works is ongoing, this powers often become null and void once practical completion has been achieved. Upon completion of practical work, the engineer will not order a variation of any sort except to ask for correction of any defects and completion and works that is yet to be done. This usually happens during the defects liability period. One of the aspects of the works that cannot be completed during this period is the change of design.[65] In all FIDIC books, it is categorically stated that the contractor will not be obliged to execute a variation order from the engineer once the TOC has been issued. This certificate, which signifies the completion of practical works, demobilizes all powers that an engineer had which empowered him to give variation orders. Under the Gold Book, this limitation of the power of the contractor to vary might even come earlier. In the book, it is stated that the engineer's powers to give variation instructions once a commissioning certificate has been issued reduce to a large extend. The only window available to the engineer to order a variation once a commissioning certificate has been issued is to request a proposal from the contractor in line with the proposed variation. This can only happen during the Operation Service and it is not an order which the contractor is obliged to accept.[66] The contractor will be expected to accept the order once he has reached an agreement with the employer regarding the consequences of such a variation. It follows that once a TOC is issued, the employer takes over the responsibility of taking care of the project and is therefore responsible for any defects that cannot be directly attributed to the contractor.

[65] Bailey (n 40) 556.
[66] Baker (n 3) 126.

5.2 Variation orders that might change the scope of works

Most contracts have very few express restrictions that limit the employer from ordering a variation on either the type or method of works. The rationale is to give the employer power to vary to ensure that he gets the product that meets his specifications. As the representative of the employer, the engineer is accorded this power as well; the aim is not to frustrate the contractor but to ensure the employer gets the value for his investment. For this reason, the engineer will be happy to work with a cooperative contractor who will be willing to vary the work accordingly. Whilst the engineer is accorded almost unrestricted power to vary, the intention is never to make the contractor accept all variations regardless of whether or not they fall under the agreed scope of work. The contractor, right from the outset, is prepared to do only works that fall under the scope of work expressed in the contract. For these reasons, the engineer's authority to order a variation is limited. The engineer can only order a variation that is within the type of work and methods described in the contract. A variation order outside the scope of work as described in the contract will be invalid.

Determining whether a variation order by an engineer falls outside the type or method of work initially signed up by a contractor is a daunting task. For this reason, such petitions are common in courts of law. The judges are to decide on whether the type of work does not fall under the original work, or the contractor is just being difficult to deliver. If the judges find out that the engineer ordered something new or peculiar, then the contractor is allowed to refuse to carry out the variation on the ground that the engineer ordered something that was not agreed upon by the contractor and the employer. The problem that the judges face is determining which work is considered a normal variation and which one is beyond the scope of work contemplated

in the contract. The judgment of Lord Cairns in the case of *Thorn v. London Corporation*[67] is often used to answer the question. Lord Cairns elaborated on what should be considered a varied or extra work reflected in the contract and what is not. According to Lord Cairns, an additional work which is outside the contract's scope is one that is unique, peculiar, and totally different from what was discussed and calculated in the original contract.[68] Further, neither of the parties is likely to reckon such work being contemplated in the contract. In such cases, the contractor will have the right to refuse to accede to the demand or request by the engineer to execute such work. Lord Cairns' judgment was relied upon in the ruling by the court in *Blue Circle Industries plc v. Holland Dredging Company (UK) Ltd*[69]. Although the nature of the two cases is different, the point of contention was the same: what does and what does not constitute a variation. The case is an example of how courts can be creative to apply the rulings depending on the context of the case before them. In *Blue Circle Industries plc v. Holland Dredging Company (UK) Ltd*, the point of contention was on whether or not an arbitration clause in the original contract applied to what seems to be an additional work that is not instructed under a variation clause. In this case, the employer, Blue Circle had contracted Holland Dredging to execute dredging tasks at Lough Larne. Under the contract, it was agreed that the materials resulting from the dredging would be deposited at Lough Larne. However, due to unavoidable reasons, the materials could not be deposited at Lough Larne and thus the two parties had to come up with an alternative dumping site for the debris. The two parties later reached an agreement that Holland Dredging should use the debris emanating from the dredging work to create a kidney-shaped island that will be used for other purposes.

[67] *Thorn* v *London Corp (1876) 1 App Cas 120,* (UK Court of Appeal).
[68] Ibid.
[69] Blue Circle Industries v Holland Dredging (1987) 37 BLR 40 (UK Court of Appeal).

Despite decent efforts by Holland Dredging, the construction of the island was not a success and thus Blue Circle resorted to initiating a legal proceeding against the company. On the other hand, Holland Dredging decided to pander to an arbitration clause in the dredging contract in order to stay the court proceedings on the grounds that any dispute between the two parties must be resolved through arbitration. Although this case is different from the *Thorn v. London Corporation*[70] case, the case will be decided on the grounds of what constitutes a variation order and an additional work that is not within the scope of the original contract.

In the case, Holland Dredging argued that the island construction was a variation work under the ICE dredging contract. On the other hand, Blue Circle petitioned that the order for the creation of an island was additional work, under a different contract, and is not, therefore, subject to the arbitration clause in the original contract. In order to resolve the problem, the court was required to determine the power and limitations of the employer or his representative regarding the work. The question is whether the employer or the engineer would have, under the original contract, ordered the contractor to build an island with the debris because the debris from the dredging task could not be dumped as agreed earlier. The answer that the judges in this case sort to answer gives clear guidance on determining the limits of an employer and his representative.

In the case, the court ruled that the nature of the work of creating an island was far removed from the original work that involved dumping debris. According to the court, the initial task involved disposing of the material. The alternative that was considered, which is the building of an island, is unique and does not fall under the original contract. Besides, the creation of an island is not within the variation clause since Holland Dredging had the right to refuse to create

[70] *Thorn v London Corp (1876) 1 App Cas 120,* (UK Court of Appeal).

the island. Although Holland Dredging accepted the new contract of creating the island, it was not obliged since the work was a new task under a new contract that is different from the original one. It follows that the employer and his representative did not have the power to instruct Holland Dredging to construct the island. The courts ruled that Blue Circle was entitled to litigate because the construction of the island was mandated under separate terms from the ones contained in the dredging contract. While ruling on different issues, the two cases, *Thorn v. London Corporation* and *Blue Circle Industries plc v. Holland Dredging Company (UK) Ltd* provide insightful grounds and guidelines to distinguish the powers to vary and the limitations of engineers when ordering variations.

5.3 Dispute Resolution

Although the engineer is expected to be impartial when implementing his determination duties as stipulated in the contract and FIDIC books, the engineer is not entrusted with the duty of finding a resolution in cases of disputes arising between the contractor and the employer. The procedure for settling the dispute is well outlined in the White Book. According to the book, the engineer is neither a mediator nor an arbitrator. The primary role of the engineer is contract administration, which is to ensure that the contractor fulfils his obligations under the contract. However, it is fair to acknowledge that there is significant controversy on the role of the engineer and whether he can help in dispute resolution. The controversy is further fuelled by the different names and definitions of roles assigned to the engineer in different FIDIC books. In all books, the engineer, who is primarily hired and is paid by the employer, is also expected to act fairly in all times.[71] The fact that the engineer is expected to act fairly or impartially raises the question of whether or not he also helps in dispute resolution.

[71] Baker (n 3) 507.

Because he is hired and then paid by the employer, the aforesaid disqualifies the engineer as an impartial arbitrator and thus cannot assume centre stage when it comes to dispute resolution. It is fair to argue that the contractor will not believe that the engineer will give a fair verdict because the reason why he is hired in the first place is so that he can represent the interest of the employer. It is for this reason that the notion of an impartial engineer has highly been criticized in many countries and jurisdictions. Despite the controversy the engineer can act impartially, the engineer is still expected to act fairly.

To eliminate the confusion, it is reasonable to assert that the engineer does not have the duty of providing resolution to duties but is expected to always act fairly despite being a representative of the employer. The Red, MDB, Yellow, and Gold books as well as some court rulings support this argument. In the quest to ensure that the engineers act fairly, the 2017 edition of the books have replaced the controversial obligation for engineers to be impartial with an express provision that requires them to make a fair determination in certain matters. The provision is enshrined in Sub-clause 3.5 which asserts that in case of a disagreement and the two parties are unable to agree, the engineer can make a determination after considering all points of contention and in accordance with the contract. This is in tandem with the ruling in *Sutcliffe* v. *Thackrah*[72] where it was held that whilst the contract administrator (engineer) can act is expected to always follow the direction of the employer, in other matters, he should use his skills, expertise, and professionalism. This is because the contract is made in such a way

[72] *Sutcliffe* v *Thackrah and others, [1974] AC 727 et seq* (House of Lords).

that both the employer and the contractor believe that the engineer will always act in a fair and unbiased way throughout the contract administration exercise.[73]

However, this should not imply that the engineer is an arbitrator. The engineer can only act as a partial administrator whose decision can be overturned by the parties and the dispute resolution process initiated. To eliminate the confusion, FIDIC books have reduced the role of the engineer as a decision-maker by introducing a Dispute Adjudication Board (DAB). The DAB is an independent impartial tribunal that is tasked with the responsibilities of dispute resolutions including pre-arbitration, a task initially entrusted to an engineer.[74]

While the capacity of the engineer to make a fair determination on issues relating to works have always been in doubt, the creation and recognition of DAB by FIDIC books illustrate that the role of the engineer in dispute resolution is limited regardless of their fairness and impartiality if any.

5.4 Variation outside the engineer's actual and/or ostensible authority

Whilst the engineer is empowered to give direction and guidance, which include ordering variations, on behalf of the employer, contracts may put limits to the powers of the employer and the engineer. Particularly, constructions contracts, under the terms of construction contracts, may specify the type, quantity, and designs of works that an employer or the engineer may direct a variation. In such a case, the power and authority of the engineer to offer a

[73] Baker (n 3) 507- 509.
[74] Ibid.

variation is only limited to the works stipulated in the particular provisions of the contract.[75] The contractor will not be compelled to execute any variation directive by the engineer that is beyond the powers entrusted to him by the contract's provisions. Further, the employer may choose to limit the powers of the engineer to order a variation for diverse reasons.

Apart from the restrictions on the power to vary that might be contained in the construction contract, the employer can decide to restrict the engineer's powers to vary. Although the engineer is expected to be fair to both parties, the engineer is appointed by the employer. The main obligation of the engineer is to make sure that the contractor delivers the work that the employer pays for. For this reason, the employer can decide the extent of the power of the engineer may when giving variation instructions. The employer will achieve this by requiring the engineer to seek his approval before issuing variations regarding certain quantities or types of work.[76]

It is a requirement that all constraints put on the engineer by the employer be disclosed to the contractor. Failure to do so breaches the terms and conditions of the contract. Putting restrictions on an engineer does not mean that the engineer is incompetent. On the contrary, employers choose skilful engineers who have the reputation of delivering high-quality work. Despite their high qualifications, it may still be necessary for employers to put restrictions on engineers in certain cases. More often than not, the limits imposed on engineers by employers are justified and in good faith. For instance, any costs incurred by the contractor shall be paid by the employer during the execution of the contracted works. Due to financial constraints, the

[75] Bailey (n 40) 552.
[76] Baker (n 3) 121.

employer may not be in a position to pay for costs that exceed a certain amount. In such instances, the employer is right to require the engineer to seek approval for any variation instructions that may result in to increase in price.[77] In this context, it is imperative that the limitation of the powers of the engineer is understood, and the engineer should only give variation instructions that are within their authority. However, if the engineer gives a variation instruction that is outside his actual or ostensible authority and the contractor executes the order, the employer will compensate the contractor if need be. The assumption is that the engineer's directives were approved by the employer.[78] The purpose of this requirement is to protect the contractor since the contractor is always expected to act on the engineer's instructions.

5.5 Not to Omit Work in order to give it to another Contractor

While the engineer, acting on behalf of the employer, has powers to omit works, this exercise should be undertaken with caution given that it might have considerable implications on the contractor's side. In most cases, the omitted work is often given to a different contractor. For these reasons, the law imposes some restrictions on the engineer's powers to exercise his contractual powers to omit work and give to another contractor. The intention is to protect the contractor who has already prepared for and is ready to execute the work as originally prepared. There is a possibility that the original contractor will incur significant loss or reduction in pay if part of the work is to be reassigned to another contractor.

[77] Ibid 121.
[78] Ibid 121.

A construction contract might have a variation clause regarding omissions of elements of work. If an employer or his engineer rightfully omits works by exercising his powers as outlined in the variation clause, then he will deduct the amount of pay equivalent to the size of works omitted. This means that the contractor will not be paid for the omitted works and thus his pay will reduce depending on the portion of work omitted. On the other hand, the employer may decide to waive the necessity that certain works are to be carried out by the contractor, thus, the contractor will be entitled to request the full payment and he will not breach the contract by not providing the work waived. Consequently, it is of essence that all parties should be aware of what does and what does not amount to an omission that leads to cost-saving and a waiver. Apart from the financial implications, the primary difference between a waiver and an omission that leads to cost saving is that the latter must be contained in a variation clause. These contentions are common occurrences in courts. An example of such a case is the Court of Appeal's decision in *SWI Ltd v P&I Data Services Ltd*[79] in the case, the court ruled that if the contract does not contain a variation contract, then the paying party cannot initiate an omission of works with the hope of cost-saving. The contractor can successfully argue that he had prepared all the materials and equipment to carry the work as initially agreed. The paying party is therefore obliged to pay for the works done. However, the paying party is still entitled to waive his right to receive part of the work. If that is the case, the contractor will be entitled to full pay and will not be assumed to have breached the contract for not delivering the waived work. Thus, it is clear that the engineer is limited to omit works if there are no such provisions in the variation clause. Even if a variation clause exists in the contract, that allows the engineer to omit works, the law protects the original contractor by limiting the power of the engineer to allocate omitted works to a different contractor.

[79] *SWI Ltd v P&I Data Services Ltd [2007] EWCA Civ 663 [2007] BLR 430.*

While the law empowers the engineer to vary works, especially in cases where the contract includes a variation clause, the law also protects the contractor from the engineer's abuse of the power to vary by restricting the engineer from omitting works and giving to a different contractor.

6 Conclusion

In brief, regardless of efforts by parties to a construction contract, employers and contractors, to develop near-flawless construction contracts with the aim of overseeing seamless construction processes, works are likely to be varied for obvious reasons. In most cases, variation of works leads to disputes between the employer and the contractor. These disputes usually end up in courts or arbitration and are likely to have negative impacts on the parties and the industry at large. With the knowledge that variations of or alteration to originally agreed works is inevitable, construction contracts usually have variation clauses. The clauses enumerate the degree of freedom that each party has when it comes to varying works. The clauses also strive to describe each party's right to vary and how each party is affected by a variation instruction.

Apart from the two parties in a contract, there is a third party, the engineer or contract administration, who is appointed and paid by the employer to represent the employer on all or in some situations and circumstances. It is clear from the discourses that both the UAE laws and FIDIC standard forms of contracts have given employers extraordinary powers to vary. In UAE, the laws are enshrined in the Civil Transaction Code (CTC) while the same are discussed under different FIDIC books including the Gold Book, the Red Book, the Silver Book, and the White Book. Given that the employer is the owner of the project and is allowed to adjust the project over time, the law and standard contracts provide a description of what aspects of the project the employer can vary, when to vary, and how to vary.

The laws also acknowledge that the employer might be a complete novice when it comes to construction laws and thus recommends that an employer hire a contract administrator or engineer who will oversee the project by giving instruction on his behalf. The engineer, in his capacity as the representative of the employer also has the power to instruct a variation of works. In some instances, the contract might allow the employer to put some constraints on the engineer's power to order a variation by requiring the engineer to seek approval on certain issues or instances before giving instructions that amount to a variation. To protect the contractor in such a case, the contractor may accept a variation instruction from an engineer even without verifying whether the engineer sort approval from the employer, and it will be assumed that the instructions came from the employer. Although the FIDIC contracts and UAE laws give the employer lots of powers when it comes to variation, the laws also strive to protect the contractor from unfair enrichment and exploitation.

Whilst the contractor is obliged to follow the instructions given by the employer or his representative (the engineer), the contractor should reach an agreement on the need for time extension and compensation if any before proceeding with an instruction that amounts to change in works or variation. This is because all variations have time and financial consequences that can be detrimental to the contractor. It follows that for every instruction given by the employer or his representative, there is the need for parties to ascertain whether the changes fall within the initial description of works that are stipulated in the contract that shall be executed by the contractor.

Of the two parties, the employer is rightfully given an extraordinary power to vary. Construction contracts are deliberately designed in such a way that the power of the employer

to vary is not limited due to emergencies, unforeseen circumstances, natural disasters, and financial needs among other unexpected problems that might compel him to order a variation. Since the engineer is a direct representative of the employer, he might be given all or some of the powers to vary that is given to the employer. However, while still acting as the employer's representative, the engineer is expected to be fair in deciding in certain situations. However, this does not mean that the engineer is the one to preside over arbitration in case of disputes. The role of dispute resolution is a preserve of the Dispute Adjudication Board (DAB) which is an independent and impartial tribunal that is tasked with the responsibilities of dispute resolutions including pre-arbitration. Unlike the employer and his representative, the contractor's power to vary is minimum and none in some cases. In most cases, a variation order by a contractor is usually in the form of a suggestion. Such suggestions, which are always in good faith in that they benefit the employer, can be accepted or rejected by the employer. The contractor has the obligation to act on the variation instructions given to him by either the engineer or the employer. However, the contractor is entitled to time and monetary compensation, if any, in case of a variation instruction. Under special circumstances, and when there is enough reason to do so, the contractor can refuse to undertake a variation order.

Bibliography

Cases

Blue Circle Industries v Holland Dredging (1987) 37 BLR 40 (UK Court of Appeal)

Dubai Court of Cassation, 44/2008

Dubai Court of Cassation, 138/2009

Neodox v Swinton and Pendlebury 5 BLR 34 (United Kingdom High Court)

Sutcliffe v Thackrah and others, [1974] AC 727 et seq (House of Lords) *SWI Ltd v P&I Data Services Ltd [2007] EWCA Civ 663; [2007] BLR 430* (UK Court of Appeal)

SWI Ltd v P&I Data Services Ltd [2007] EWCA Civ 663; [2007] BLR 430 (UK Court of Appeal)

Thorn v London Corp (1876) 1 App Cas 120, (House of Lords)

Legislation

UAE statutes

UAE Civil code, Article 885

UAE Civil Code, Article 886

UAE Civil Code, Article 887

UAE Civil Code, Article 249

UAE Civil code, Article 287

UAE Civil code, Article 273

FIDIC Standard Form of Contracts Clauses

FIDIC Red Book, 1999, Sub-Clause 3.1

FIDIC Red Book, 1999, Sub-Clause 8.4

FIDIC Red Book, 1999, Clause 13.1

FIDIC Red Book, 1999, Sub-Clause 13.2

Books

Bailey J, *Construction Law*, vols. I, II & III (1st edn., Routledge 2011).

Baker E and others, *FIDIC Contracts: Law and Practice* (5th edn., Informa Law from Routledge 2009).

Godwin W, *International Construction Contracts: A Handbook: With Commentary on the FIDIC Design-Build Forms* (Wiley-Blackwell, John Wiley And Sons Ltd ; Chicester 2013).

Jaeger A-V and Hök G-S, *FIDIC - a Guide for Practitioners* (Springer Berlin Heidelberg 2010).

Robinson MD, *An Employer's and Engineer's Guide to the FIDIC Conditions of Contract Robinson/an Employer's and Engineer's Guide to the FIDIC Conditions of Contract* (Oxford John Wiley & Sons 2013).

Sergeant M and Wieliczko M, *Construction Contract Variations* (Informa Law From Routledge 2014).

Dissertation and Theses

Farag R, "Valuation of Variation Clauses in Lump Sum Contracts" (Undergraduate Dissertation 2016). <https://bspace.buid.ac.ae/bitstream/handle/1234/940/2014122076.pdf?sequence=3&isAllowed=y> accessed November 18, 2021.

Reports

Grose M and Shlah R, "Construction Law in Qatar and the United Arab Emirates: Key Differences" (2015) 1 REVIEW <http://the-tclr.org/wp-content/uploads/2015/11/TCLR_3-web-02.pdf> accessed October 5, 2021.

Journals

Cherian A, "The Construction Industry in the Perspective of an Economic Boost of the United Arab Emirates (UAE)" (2020) 7 International Research Journal of Engineering and Technology (IRJET) https://www.irjet.net/archives/V7/i8/IRJET-V7I846.pdf.

Mohammad N, Ani AIC and Rakmat RAOK, "Causes and Effects of Variation Orders in the Construction of Terrace Housing Projects: A Case Study in the State of Selangor, Malaysia" (2017) 6 Int. J Sup. Chain. Mgt 226.

Articles and blogs

Kanakri CAH and Massey A, "Legal Issues Relating to Construction Contracts in the United Arab Emirates" (Baker McKenzie Habib Al Mulla ed, *Thomson Reuters* October 1, 2017)

https://uk.practicallaw.thomsonreuters.com/0-619-1946?transitionType=Default&contextData=(sc.Default)&firstPage=true .

Kramer N, Stothard P and Thadani A, "United Arab Emirates: Construction Force Majeure and Alternative Relief" (*https://www.nortonrosefulbright.com/it-it/knowledge/publications/2020/q2*May 2020) <https://www.nortonrosefulbright.com/it-it/knowledge/publications/8d9e67dd/united-arab-emirates-relief-provisions-in-construction-contract-suites> accessed November 27, 2021.

Larkin C, "Quantity Clause Needs Update" (2007) <https://www.fidic.org/sites/default/files/Quantity%20clause%20needs%20update.pdf> accessed November 18, 2021.

Lilley C, "Contracts of Muqawala and Decennial Liability: A Middle Eastern Perspective" (*Construction Blog* March 15, 2010) <http://constructionblog.practicallaw.com/contracts-of-muqawala-and-decennial-liability-a-middle-eastern-perspective/> accessed July 25, 2021

Mackenzie A and others, "Construction and Projects in United Arab Emirates: Overview" (*Global Arbitration News* May 2, 2019) https://globalarbitrationnews.com/construction-and-projects-in-united-arab-emirates-overview/.

The World Bank, "Sample Force Majeure Clauses" (*The World Bank* November 30, 2020) <https://ppp.worldbank.org/public-private-partnership/ppp-overview/practical-tools/checklists-and-risk-matrices/force-majeure-checklist/sample-clauses> accessed August 4, 2021.

Word Count: 21,122