

How to prevent disputes in construction contracts due to cultural differences^{1, 2}

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ABSTRACT

This article aims to prevent cultural disputes. Indeed, projects and contracts in the international construction area meet a lot of obstacles, where disputes are the most damaging. They can cost lot of time, money and even sometimes conduct to the failure of those one.

To solve this problem, we will consider adequate alternatives with the best attributes to evaluate the value of these alternatives. We forecast to use Multi-Attribute Decision Making methods and Pareto analysis, to find the fittest solution to this problem.

Key words: Construction contracts/culture/Dispute/resolution/Way of thinking/success.

INTRODUCTION:

The construction sector involves a large range of international actors in different sectors. Those stakeholders have various “political, legal, economic, and cultural backgrounds”³. Many constructions companies propose a wide pack of product. China, USA and India own most of the market shares in the world. “Leading U.S.-based construction contractors in 2017, based on new contracts (in million U.S. dollars)”⁴ are The Turner Corp, Fluor Corp and Skanska. Usually most of the companies “involved in on-site construction are small and local”⁵. An organism exists at a

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³ Edwin H.W Chan and Raymond Y.C Tse (2003) - *Cultural consideration in international construction contracts*. Retrieved from <https://pdfs.semanticscholar.org/8686/54fbf0a05f76ab9dd518308182bb7f5d047e.pdf>

⁴ Statista. (n.d). *U.S. Construction Industry - Statistics & Fact*. Retrieved from <https://www.statista.com/topics/974/construction/>

⁵ International Labour Organization. (n.d). *Construction sector*. Retrieved from <http://www.ilo.org/global/industries-and-sectors/construction/lang--en/index.htm>

bigger level named “the international construction industry”⁶, but most of this sector activity is done by local business. However, there is a trend in this sector to outsource the supply of goods and services used in the construction process. Firms ask for specialized services via subcontractors.

Indeed, in construction case, most of the disputes come from the shock of diverse cultural approaches of the contracts and the way of understanding the terms. Cultural discordances and culture have to be managed well and carefully because “these concepts become more critical in construction due to the nature of contracting, internationalization of procurement, joint venturing, and partnering in this industry”⁷.

In this situation, many parts are involved, to owner from subcontractors. They have to deal with many elements like time, cost and quality expected. The biggest issue is disputes due to various interests where culture have a big impact.

The growth of strategic alliances in this area also rise the meaning of cultural differences due to people coming from different cultures interacting.

Many researchers proposed some different definition of culture. Hofstede’s has defined culture in an organizational way as “the collective programming of the mind which distinguishes one group from another”⁸. Barthorpe tried to give an easier definition as “what we are and what we do as a society”⁹. For Holden, it’s just “varieties of common knowledge.”¹⁰

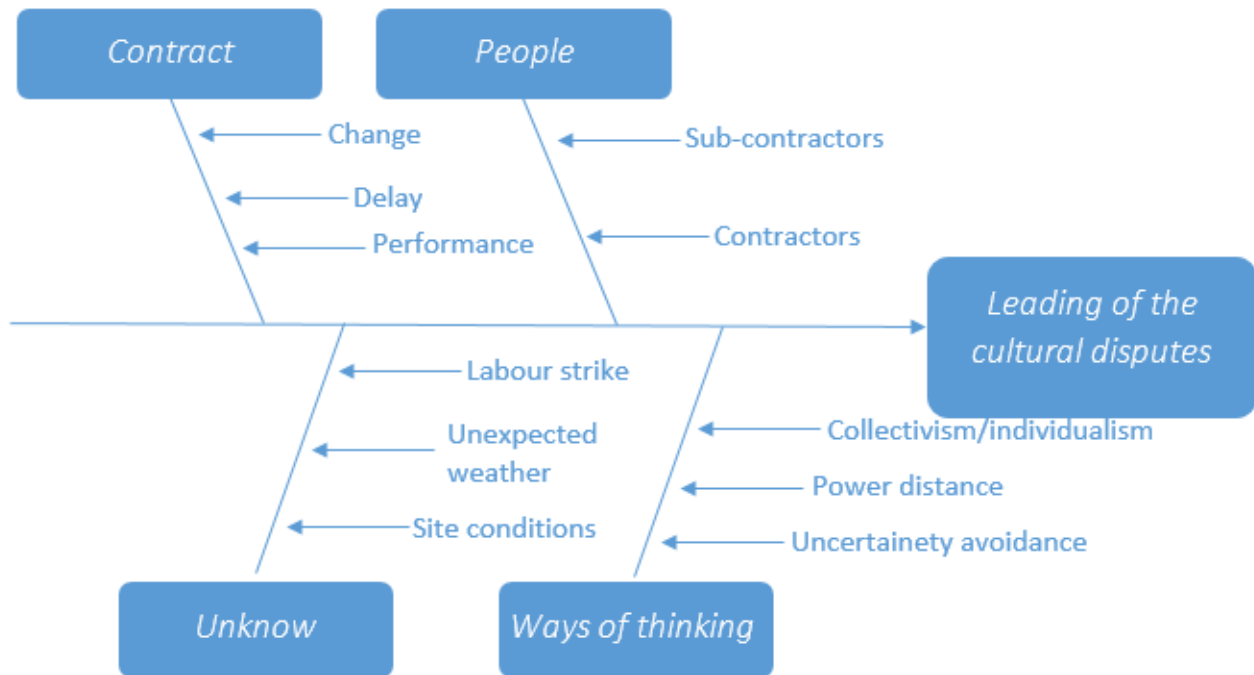
⁶ International Labour Organization (n.d). *Construction sector*. Retrieved from <http://www.ilo.org/global/industries-and-sectors/construction/lang--en/index.htm>

⁷ Reach Gate. (n.d). *Impact of cultural differences on project success in construction*. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction

⁸ Reach Gate. (n.d). *Impact of cultural differences on project success in construction*. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction

⁹ Reach Gate. (n.d). *Impact of cultural differences on project success in construction*. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction

¹⁰Reach Gate. (n.d). *Impact of cultural differences on project success in construction*. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction



It's impossible to avoid all conflicts or disputes because they are too numerous. And even sometimes, disputes are positives, they open ways to solve misunderstanding and burst the abscess between two important part. But when the problem is only due to culture, it can't be positive at all. For international contract, if this kind of conflict exist, it's hard to go forward and reach the goal of this contract. Culture is based on some important points like uncertainty avoidance, the perception of masculinity or femininity and even ways of acting with the collectivity or individually. In fact, those points which define concretely the culture term, have to be deeply considered by owners and subcontractor to facilitate the well-being of the relation between them and so, find agreement which will satisfied those two parts. After reaching this goal, dealing with those cultural differences will allow a better flow of information exchanged.

In many Business schools, professors teach how to deal with cultural differences. In theory it looks easy but in fact it's hard to apply those knowledge. That's why our company will propose concrete solutions to succeed in international construction contracts.

METHODOLOGY

Step 1:

International construction is one of the best area to deal with diverse actors and failed easily by setting aside the cultural aspect. Nowadays, companies which want to implant themselves in another country, study their new environment to maximize their chance of success. It's even more necessary in construction area.

Step 2:

Undermentioned are the best alternatives implementable for construction companies which want to improve their approach with a foreign contractor or sub-contractor. They are forced to care about that guidance to avoid inevitable failure.

1. **Prevent and create a culture awareness:** Project or contract which are successful have a common point: “All of the managers pointed out that understanding, respecting, appreciating and accepting different cultures are highly important issues for performing construction projects successfully.”¹¹ Ignorance about the cultural difference and not wanting to deal with it, is the major reason of the failure in those contracts.
2. **Benchmark and knowledge sharing:** A positive interaction between both parts usually allow a better understanding of the issues and more efficiency. Productivity increase when in a part, one is an expert in a different area than the other. It work only if they share their own knowledge. In this case, cultural difference is an absolute advantage.
3. **Hire an advisor who worked/lived in the different cultural places:** It’s for a part which make the effort to understand the other part, who explain to it what are the best ways to negotiate, how to understand the contractor/sub-contractor request, what are the informal expectations hidden behind the demand. “In the manners cultural “guide” can help you size up the situation, coach you as needed, and even interject if he feels you have made an egregious error or misinterpretation”.¹²
4. **Make research on the contractor/sub-contractor background:** This is the best way to avoid stereotypes. “Background research on the other countries’ concerns and interests can go a long way in helping negotiations. Delegates entering into international negotiations should learn about the parties from other countries by trying to understand the other negotiating parties’ organizations, cultures, country background, politics, etc.”¹³ It permit to find the adequate strategy.

Now to assess the different alternatives exposed above we created a list of attributes that will

¹¹Reach Gate. (n.d). *Impact of cultural differences on project success in construction*. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction

¹²Pon Staff (2018) *Solutions for avoiding intercultural barriers at the negotiation table*. Retrieved from: <https://www.pon.harvard.edu/daily/business-negotiations/solutions-for-avoiding-intercultural-barriers/>

¹³Duke University (n.d) *Introduction to international negotiations..* Retrieved from: <https://www.pon.harvard.edu/daily/business-negotiations/solutions-for-avoiding-intercultural-barriers/>

enable to rank the best options and the worst one. Those attributes make it possible to quantify and measure the processes used and thus, to be able to determine which solutions are the most adapted to the conflict.

1. **Cost:** This is without doubt the most significant attribute. People think in term of money before anything else in disputes case.”...arising disputes very often escalate into multi-billion dollar ‘mega’ disputes which prove extremely costly for all involved.”¹⁴
2. **Efficiency:** In international contract, it’s an obligation to manage a project effectively or find some effective solutions when a disagreement interfere on the project. If it’s not done, the project will automatically fail.¹⁵
3. **Relationship impacted:** Good relationship between both parts is the primary way to succeed the project. When relations are impacted because of the contracts, contractors and sub-contractors meet conflict that will disable the contracts process. That’s why alternative disputes resolutions are mostly used: “Where there is difficulty in communication (oral or written) between the parties.”¹⁶
4. **Duration:** The longer a dispute lasts, the harder the parts will get out of this situation. There are a lot of reasons why disputes can last like administrative, technical or cultural problem. The majority of managers see time resolving as one the most important matter in disputes. “First, clearly all respondents perceive negotiation as the most effective dispute resolution technique in terms of time.”¹⁷
5. **Visibility of the conflicts:** The question here, is to determine if the parties will settle their different in public or in private. Showing the conflict in public will degrade their image. Indeed, “Parties rarely welcome the publicity that comes with court

¹⁴Arcadis (2015) *Global construction disputes , the higher the stakes, the bigger the risk, constructions solution*. Retrieved from: <https://www.arcadis.com/media/2/8/9/%7B289321DC-B266-4A13-82FA-CCBD54B6F535%7DARCADIS%20Construction%20Disputes%20Report%202015%20004.pdf>

¹⁵Nicolas Gould(09/2004) *Disputes resolution the construction industry : An overview*. Retrieved from: <https://www.fenwickelliott.com/sites/default/files/ADR%201%20-%20Dispute%20Resolution%20In%20The%20Construction%20Industry.pdf>

¹⁶IJAERT (05/2017) *The role of alternative dispute resolution in the settlement of construction dispute in Ghana*. Retrieved from: <http://www.ijaert.org/wp-content/uploads/2017/06/150222.pdf>
<https://www.fenwickelliott.com/sites/default/files/ADR%201%20-%20Dispute%20Resolution%20In%20The%20Construction%20Industry.pdf>

¹⁷Nicolas Gould (09/2004) *Disputes resolution the construction industry : An overview*. Retrieved from: <https://www.fenwickelliott.com/sites/default/files/ADR%201%20-%20Dispute%20Resolution%20In%20The%20Construction%20Industry.pdf>

proceedings.”¹⁸ By knowing that, parties can be aware of the consequences of attacking the other in public.

6. **Difficulty to set up the solution:** Parties need to choose viable solutions to their problems. If the solution is too hard to find (rare services) and/or need too much time and money to find (for instance: difficulty to find the adequate experienced advisor), the solution can be abandoned. So in certain case, it's mandatory or just better to go to the front and trial if the solution proposed is hard to find or to put in place. In this case the part will lose more money, time etc by setting the solution than doing nothing or go to the trial.¹⁹
7. **Risk of failure:** Risk is a major cause of project's failure. Thus, being able to manage risk in a project is necessary, in order to avoid losing time and spending too much money. So when finding some solution, identify which solution have the less chance to fail to save more time and money. "Any construction project involves risk and there is no possibility to completely eliminate all the risks associated with a specific project."²⁰
8. **Technical requirement:** Those solution need some technical requirement to succeed. The parties have to provides their own technical knowledge or skills to set the up the solution. "This is delivered through a blend of technical expertise, commercialism, sector insight and the use of live project data, combined with a multi-disciplined and professional focus."²¹

Step 3: Development of outcomes

With listed the 8 attributes above, which are the main attributes for project success, we have to rank them by order of importance.

¹⁸ A.Lexis PSL document produced in partnership with Mayer Brown International LLP (Oct- 2012) - *The pros and cons of arbitration*. Retrieved from: https://m.mayerbrown.com/Files/News/04165fd5-5165-41ea-bb6f-19d9235c171d/Presentation/NewsAttachment/7e531e5e-4040-4251-b1a8-1d4b6168c99b/Practice%20Note_Duncan_Pros-Cons-Arbitration_oct12.pdf

¹⁹ Nicolas Guild (n.d) *Alternative dispute resolution in the UK construction industry*. Retrieved from: http://www.arcom.ac.uk/-docs/proceedings/ar1998-428-437_Gould.pdf

²⁰ Zaghoul Ramy T(10/2002)*Construction contract and risk allocation*. Retrieved from: <https://www.pmi.org/learning/library/construction-contracts-risk-allocation-1025>

²¹ Arcadis (2015) *Global construction disputes , the higher the stakes, the bigger the risk, constructions solution*. Retrieved from: <https://www.arcadis.com/media/2/8/9/%7B289321DC-B266-4A13-82FA-CCBD54B6F535%7DARCADIS%20Construction%20Disputes%20Report%202015%20004.pdf>

For this step, we will use the non-compensatory model below, which will enable to rank all the attributes by comparing each attribute with all the other attributes. This methodology consists in “taking a look at all the attributes and conducting a Pair-Wise comparison to determine which attributes are the most important by asking “which is more important?” and give a score of 1 to the winning option and a score of 0 to the losing option”²².

	Cost	Duration	Efficiency	Risk of failure	Relation impacted	Visibility of the conflict	Difficulty to set up the solution	Technical requirement	Ordinal ranking
Cost	1	1	1	1	1	1	1	1	7
Duration	0	1	1	1	1	1	1	1	6
Efficiency	0	0	1	1	1	1	1	1	5
Risk of failure	0	0	0	1	1	1	1	1	4
Relation impacted	0	0	0	0	1	1	1	1	3
Visibility of the conflict	0	0	0	0	0	1	1	1	2
Difficulty to set up the solution	0	0	0	0	0	0	1	1	1
Technical requirement	0	0	0	0	0	0	0	1	0

Figure 1: non-compensatory model applied at the study²³

Thanks to this method, we can now rank the attributes from the most important to the least important:

1. Cost
2. Duration
3. Efficiency
4. Risk of failure
5. Relation impacted
6. Visibility of the conflict
7. Difficulty to set up the solution
8. Technical requirement

Step 4: Selection of a criterion

Now we will use the multi-attribute decision making model to weigh the advantages and disadvantages of all the alternatives and check their compatibility with the different attributes, to eliminate those which do not fulfill the requirements. Several colors are used inside the model (green meaning the solution is good for the attribute, yellow when it is medium and red when the solution clearly is bad).

²² Sullivan, Wickes & Kroelling (2014) [Engineering Economics](http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective) 15th Edition Using the approach. Retrieved from: <http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective>

²³ BY AUTHOR

	Prevent, create culture awareness	Benchmark, Knowledge sharing	Hire an advisor	Make research on the part background
Cost	Low	Low	Bad	Low
Efficiency	Medium	High	High	Medium
Relation impacted	Low	Inexistent	Medium	Low
Duration	Short	Medium	Medium	Short
Visibility of the conflict	Inexistent	Inexistent	Low	Inexistent
Difficulty to set up the solution	Easy	Easy	Medium	Easy
Risk of failure	Medium	Low	Low	Medium
Technical requirement	Medium	Medium	Low	Low

Figure 2: the multi-attribute marking model²⁴

So now we can compare with the solutions. We will first give a weight for each solution following this grid:




Color			
Attribute Weight	0	0,25-0,5	0,75-1

Figure 3: Weight grid²⁵

²⁴ By author

²⁵ By Author

	Prevent, create culture awareness	Benchmark, Knowledge sharing	Hire an advisor	Make research on the part background
Cost	1	1	0	1
Efficiency	0,5	0,75	1	0,25
Relation impacted	1	1	0,25	1
Duration	1	0,5	0,5	1
Visibility of the conflict	1	1	1	1
Difficulty to set up the solution	1	1	0,25	1
Risk of failure	0,5	1	1	0,25
Technical requirement	0,5	0,5	1	1
SUM	6,5	6,75	5,5	6,5

Figure 4: Table of weight²⁶

This technique enables us to determine the minimum acceptable for an alternative to be kept. The diagram above enables to start taking some solutions out the picture. After studying the tabs, we decided that only the alternatives with a total less than 6 will be rejected. We can then eliminate one alternative, which is hire an advisor. We consider the three others.

Step 5: Analysis and Comparison of the alternatives

In Step 5, we will summarize the whole decision-making process, which we initiated in steps 3 and 4, thanks to an additive weighting technique²⁷. This ranking technique will enable us to rank the different alternatives while taking the weight of the attributes into account. We will use this the three solutions remaining which are prevent, create culture awareness; benchmark, knowledge sharing and finally make research on the part background.

²⁶ By author

²⁷ Sullivan, Wickes & Kroelling (2014) - *Engineering Economics* 15th. Adaptation from planning planet. Retrieved from: <http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective>

	Step 1	Step2	Prevent		Benchmark		Research	
	Relative ranking	Normalized Weight (A)	(B)	(A)*(B)	(C)	(A)*(C)	(D)	(A)*(D)
Cost	7	0.25	1	0.25	1	0.25	1	0.25
Duration	6	0.21	1	0.21	0.5	0.11	1	0.21
Efficiency	5	0.18	0.5	0.09	0.75	0.13	0.25	0.045
Risk of failure	4	0.14	0.5	0.07	1	0.14	0.25	0.05
Relation impacted	3	0.11	1	0.11	1	0.11	1	0.11
Visibility of the conflict	2	0.07	1	0.07	1	0.07	1	0.07
Difficulty to set up the solution	1	0.04	1	0.04	1	0.04	1	0.04
Technical requirement	0	0	0.5	0	0.5	0	1	0
SUM	28	1	SUM	0.84	SUM	0.85	SUM	0.82

Figure 5: Additive Weighting Technique²⁸

The result is the confirmation of what we obtained during step 4. The best alternative for a company to prevent cultural disputes in construction contract is to benchmark and set up a knowledge sharing.

Step 6: Selection of the preferred alternative

As a result of these calculations we are led to choose the benchmark and set up a knowledge sharing solution as the most efficient based on the 8 attributes we had previously selected. In general all three results prove that companies have to make efforts before signing the contract and not wait for the dispute/conflict to act. Indeed, this solution allows a personal management of the time and money to use. The part can invest more or less money and time according to the situation. Sharing knowledge create a trust atmosphere which adequate provide more efficiency to the contract success and permit avoiding misunderstanding, “Trust is especially important in sharing tacit knowledge which is recognized as the most valuable knowledge in an organization.”. This solution is a procedure which takes a little time to set up if the other part don’t trust you but when it works, it has autonomy and confidentiality.

Step 7: Performance monitoring and post-evaluation of results

The previous steps have highlighted the fact that the best alternative is the benchmark and set up a knowledge sharing. In this final step, we will find out how the impact of this solution can be measured by a company which decides to use it.

²⁸ BY AUTHOR

Now that we have succeeded in selecting the alternative that stands out from the others, we will try to study the real impact of this method for the company. To be done, we will do a Pareto analysis such as: “A Pareto analysis helps prioritize decisions so leaders know which ones will have the greatest influence on their overall goals and which ones will have the least amount of impact.”²⁹.

We will firstly analyze the consequences on the company without using the benchmark and set up a knowledge sharing.

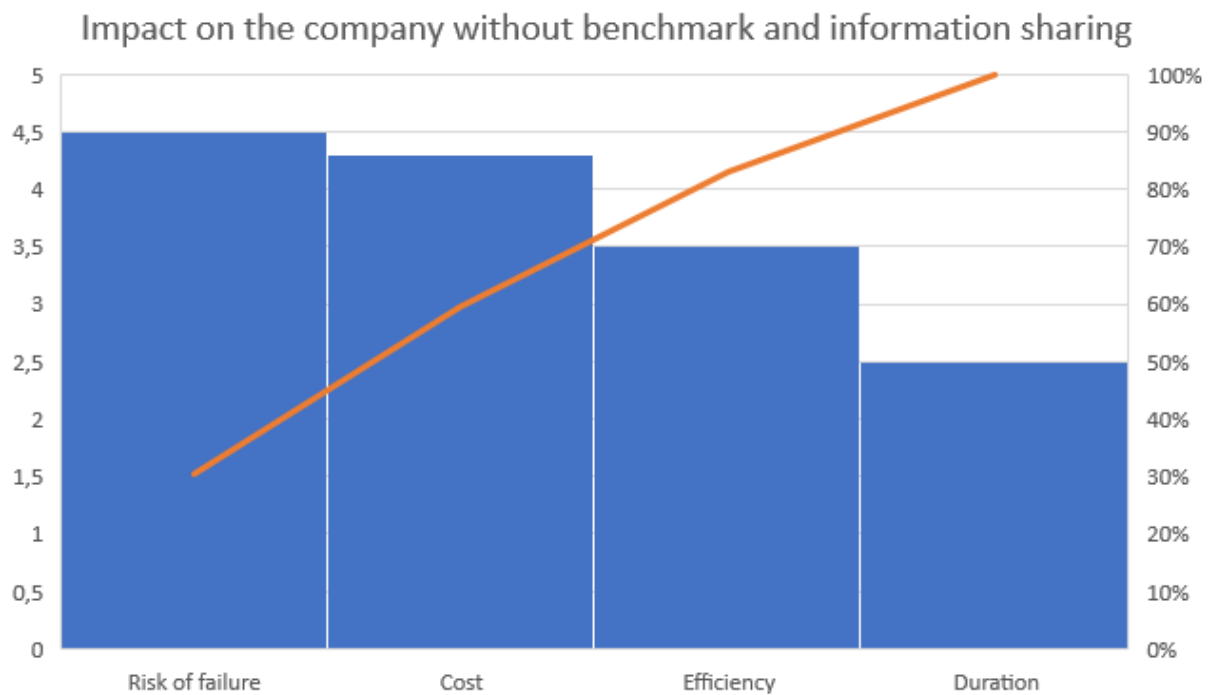


Figure 6: Impact on the company - without benchmark and information sharing³⁰

The study of this first graph is not surprising. Disputes impacts hardly the company, either it's about the risk of failure, the economic impact of the disputes, their impact on the efficiency or their duration.

Now we are going now to analyze the same case but, with benchmark and the setup of information sharing.

²⁹ Chad Brooks (2014, March) - *What Is a Pareto Analysis?* Retrieved from: <https://www.businessnewsdaily.com/6154-Pareto-analysis.html>

³⁰ BY AUTHOR

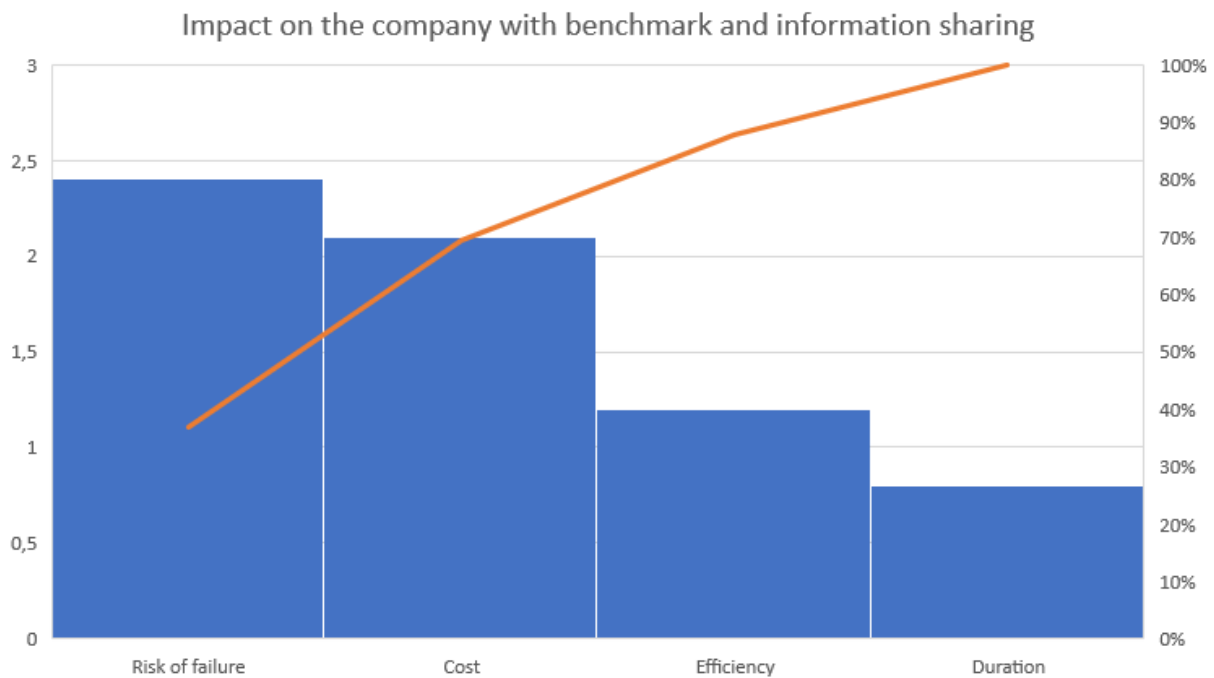


Figure 6: Impact on the company – with benchmark and information sharing³¹

With the Pareto analysis we can now say that the negative risks that can affect the company or the contractors are significantly reduced. The implementation of benchmark and information sharing has a notable positive effect for the parties involved in the contracts. It makes it possible to prevent cultural disputes.

CONCLUSION

I remind what the primary goal of this paper: Find the best solution to prevent cultural disputes before they start. To begin we searched some viable sources which helped us to keep the scope in mind and stay objective.

We set attributes that can affected our solutions proposed. These attributes that we have quantified allowed these solutions to rank. After using different technique and calculation, we summarized all the results to find the best adequate solution named “Benchmark and information sharing”. The Pareto analysis confirmed our first findings by analyzing it on the very ground of the company.

So we strongly recommend this solution to prevent cultural disputes in construction contract. However, this result has to be taken with tweezers, because every situation is different and

³¹ BY AUTHOR

might require another solution which will be more appropriate. "Success criteria can also differ from one project to another. Hyvari indicated that in the project management literature it is still somewhat unclear what makes a successful project in general." ³²

BIBLIOGRAPHY

1. Nancy Dangrochiya, Hiren Rathod and Dr. N. D. Sharma, A REVIEW ON CAUSES OF DISPUTES CONSTRUCTION INDUSTRY. Retrieved from http://ijaresm.net/Pepar/VOLUME_1/ISSUE_4/12.pdf
2. Emre Cakmak and Pinar Irlayici Cakmak. (2014, January). An analysis of causes of disputes in the construction industry using analytical network process. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042813050738>
3. Matthew Devries. (2010, May). The Top Three Causes of Disputes On A Construction Project. Retrieved from: <https://www.bestpracticesconstructionlaw.com/2010/05/articles/project-management/the-top-three-causes-of-disputes-on-a-construction-project/>
4. Arcadis Global Construction Disputes Report 2017. Global Construction Disputes Report 2017: Avoiding the Same Pitfalls. Retrieved from: <https://www.arcadis.com/en/united-states/our-perspectives/global-construction-disputes-report-avoiding-the-same-pitfalls/>
5. Statista. (n.d). U.S. Construction Industry - Statistics & Fact. Retrieved from <https://www.statista.com/topics/974/construction/>
6. Marilyn Klinger. (2009, March). Confronting Construction Conflicts. Retrieved from <https://www.ecmweb.com/ops-amp-maintenance/confronting-construction-conflicts>
7. Edwin H.W Chan and Raymond Y.C Tse (2003) - Cultural consideration in international construction contracts. Retrieved from <https://pdfs.semanticscholar.org/8686/54bf0a05f76ab9dd518308182bb7f5d047e.pdf>
8. International Labor Organization.(n.d).Construction sector. Retrieved from <http://www.ilo.org/global/industries-and-sectors/construction/lang--en/index.htm>
9. Reach Gate. (n.d). Impact of cultural differences on project success in construction. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction

³² Reach Gate. (n.d). *Impact of cultural differences on project success in construction*. Retrieved from https://www.researchgate.net/publication/265973264_Impacts_of_cultural_differences_on_project_success_in_construction

10. Carbajal Jennifer M.(n.d). Influence of organizational culture of the relationship between psychological contract and organizational citizenship behaviour. Retrieved from <http://www.dtic.mil/dtic/tr/fulltext/u2/a446228.pdf>
11. Sage Journal.(n.d) Psychological contracts across culture. Retrieved from <https://journals.sagepub.com/doi/abs/10.1177/0170840610380811?journalCode=ossa>
12. Dean H. Handley and Corey M. Angst.(2015)The impact of culture on the relationship between governance and opportunism in outsourcing relationship. Retrieved from https://www3.nd.edu/~cangst/CoreyAngst_FacultyWebsite_files/HandleyAngst2015SMJCultureOutsourcing.pdf
13. Ivey Business Journal.(2004)Negotiating: Top 10 ways that culture can affect your negotiation. Retrieved from <https://iveybusinessjournal.com/publication/negotiating-the-top-ten-ways-that-culture-can-affect-your-negotiation/>
14. Pon Staff (2018) *Solutions for avoiding intercultural barriers at the negotiation table*. Retrieved from: <https://www.pon.harvard.edu/daily/business-negotiations/solutions-for-avoiding-intercultural-barriers/>
15. Duke University (n.d) *Introduction to international negotiations*. Retrieved from: <https://www.pon.harvard.edu/daily/business-negotiations/solutions-for-avoiding-intercultural-barriers/>
16. Arcadis (2015) *Global construction disputes, the higher the stakes, the bigger the risk, constructions solution*. Retrieved from: <https://www.arcadis.com/media/2/8/9/%7B289321DC-B266-4A13-82FA-CCBD54B6F535%7DARCADIS%20Construction%20Disputes%20Report%202015%20004.pdf>
17. Nicolas Gould (09/2004) *Disputes resolution the construction industry : An overview*. Retrieved from:<https://www.fenwickelliott.com/sites/default/files/ADR%201%20-%20Dispute%20Resolution%20In%20The%20Construction%20Industry.pdf>
18. IJAERT (05/2017)*The role of alternative dispute resolution in the settlement of construction dispute in Ghana*. Retrieved from: <http://www.ijaert.org/wp-content/uploads/2017/06/150222.pdf>
19. A. Lexis PSL document produced in partnership with Mayer Brown International LLP (Oct- 2012) - *The pros and cons of arbitration*. Retrieved from: https://m.mayerbrown.com/Files/News/04165fd5-5165-41ea-bb6f19d9235c171d/Presentation/NewsAttachment/7e531e5e-4040-4251-b1a81d4b6168c99b/Practice%20Note_Duncan_Pros-Cons-Arbitration_oct12.pdf
20. http://www.arcom.ac.uk/-docs/proceedings/ar1998-428-437_Gould.pdf
21. Zaghoul Ramy T. (10/2002) *Construction contract and risk allocation*. Retrieved from: <https://www.pmi.org/learning/library/construction-contracts-risk-allocation-1025>

22. Sullivan, Wickes & Kroelling (2014) *Engineering Economics* 15th Edition, Using the approach. Retrieved from: <http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective>
23. California Court, The judicial Branch of California, ADR Types & benefits. Retrieved from: <http://www.courts.ca.gov/3074.htm>
24. CMAP, Alternative dispute resolutions methods, Retrieved from : <http://www.cmap.fr/our-offer/alternative-dispute-resolution-methods/?lang=en>
25. EC Harris, Global constructions disputes: Moving in the right direction, Contract Solutions, 2012. Retrieved from : <http://www.disputeboardsmena.com/wp-content/uploads/2013/02/ECH-Global-Construction-Disputes-Report-2012.pdf>
26. Expert evidence, (March, 2017) Binding and non-binding arbitration- What is the difference, Retrieved from : <http://expert-evidence.com/binding-and-non-binding-arbitration-what-is-the-difference/>
27. Find Law, (2017, May), What is Alternative Dispute Resolution, Retrieved from : <https://hirealawyer.findlaw.com/choosing-the-right-lawyer/alternative-dispute-resolution.html>
28. GUILD OF PROJECT CONTROLS COMPENDIUM and REFERENCE (CaR) | Project Controls - planning, scheduling, cost management and forensic analysis (Planning Planet). (n.d.). Retrieved from <http://www.planningplanet.com/guild/gpccar/risk-opportunity-monitoring-and-control>
29. International Journal of project management, The impact of principal-agent relationship and contract type on communication between project owner and manager. Retrieved from : <https://www.sciencedirect.com/science/article/abs/pii/S0263786305000347>
30. Joanne Staugas (January-2002) - Strategies for dispute prevention and management in commercial arrangements - Vol 4 no 9. Retrieved from: <https://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1169&context=adr>
31. James G Zack, (December-2015), Resolution of dispute – The next generation. Adaptation Planning planet– Formal dispute resolution. Retrieved from: <http://www.planningplanet.com/guild/gpccar/formal-disputes-resolution>
32. NSW Government, Types of alternative dispute resolution, Retrieved from : http://www.courts.justice.nsw.gov.au/Pages/cats/courtguide/alternate_dispute_resolution/types_adr/types_adr.aspx

About the Author



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Arthur Durand is a student in SKEMA Business School and currently doing a master in a Program Project management and business development. He passed the Agile PM this year and is currently searching more experience in project management area. He did an internship at BADENOCH & CLARK Company during the first six months of 2019 year. Currently researching a second internship in project management to complete my gap year, He finished his last semester of study in April 2019.

He spent one semester in Suzhou (China) in Fall 2015 and one in Belo Horizonte (Brazil) in Spring 2018, where he learned how to deal with cultural differences. This experience allowed him to write an essay on Prevent disputes in construction contract due to cultural differences. He completed an internship in Philippines as a teacher in Angeles city during the 2017 summer. It was a humanitarian experience helping to educate Pilipino youth. He gave mathematics and English courses to orphan children who needed education to succeed in life. Arthur has worked in companies during summer since he was eighteen to finance his expensive studies. he worked at INTERSPORT as a cashier, at BOULANGER as a seller and finally at FRUIDOR as quality manager.

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