CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

In reference to the previous analyses, several significant factors considered crucial in causing disputes in residential construction projects are:

- 1. Design and information factor
- 2. Financial factor
- 3. Quality factor
- 4. Client-related factor

By citing the FIDIC Green Book Short Form Contract and the Ministerial Regulation No. 31 of 2015 on The Procurement Standards and Guidelines on Construction Works and Consultancy Services, there are several contributing root causes which are potential to trigger the correlated factors such as

- 1. Contract provisions
- 2. Contract compliance
- 3. Standards being used
- 4. Given time limit

This finding then leads to the clauses establishment which goal is to avoid and or to counter arising disputes if such are bound to happen by governing the stated causes.

As for the second analysis, suggestions being made for the design and information factor govern the issues of:

- 1. Drawings and specifications (dimension, volume, technical requirements, working methods)
- 2. Issued time limits
- 3. Addendums.

Suggested clauses on financial factor cover:

1. Payment and or reimbursement mechanisms

- 2. Time & budget compensation
- 3. Retentions and guarantees
- 4. Penalties
- 5. Time limit
- 6. Percentage

Proposed clauses on quality factor define:

- 1. Defects
- 2. Notifications
- 3. Time limit
- 4. Testing standards
- 5. Remediations
- 6. Testing procedure
- 7. Record of completion in the contract

The client-related clauses revolve around matters such as:

- 1. Liabilities
- 2. Time limit on comments, responses, instructions, and or revisions

Finally, to assists small-scale contractors to pursue the negotiation alternative to resolve disputes in residential projects, established models of negotiation process framework for each dispute artifacts are shown in a logical order by the following stages:

- 1. Preparation stage
- 2. Information exchange and validation stage
- 3. Bargaining stage
- 4. Concluding stage
- 5. Execution stage of implementing the settlement

5.2 Recommendations

The findings of this study have proven that there are several dominant factors which contribute a substantial portion in causing disputes among residential construction projects. Although given analyses have already underlined the factors, clauses, and its

negotiating procedures, the understanding on construction project disputes especially under the residential scope as a whole is still beyond unrivaled. Therefore, proposed recommendations on further studies will be as proposed:

- Thorough considerations on broader project types are fundamental to accommodate the real implementation on a project basis. Further improvements on mentioned suggestion can be developed to map the dispute resolutions for more detailed factors such as project value, contract types, and not limited to the location of project.
- 2. A more in-depth analysis on the idea of utilizing fuzzy logic also provides a more objective and accurate result by calculating the probability on the likelihood occurrence of certain disputes artifacts can be one of many improvements possible to be conducted.
- 3. Utilizing the coding technique during the clauses and negotiation process framework establishment may provide a more structured yet holistic perspective of the proposed alternatives.

REFERENCES

1999. Undang – Undang Republik Indonesia Nomor 18 Tahun 1999 tentang Jasa Konstruksi.

1999. Undang – Undang Republik Indonesia Nomor 30 Tahun 1999 tentang Arbitrase dan Alternatif Penyelesaian Sengketa.

2015. Peraturan Menteri Pekerjaan Umum dan Perumahan Rakyat Nomor 31 Tahun 2015 tentang Perubahan Ketiga atas Peraturan Menteri Pekerjaan Umum Nomor 07/PRT/M/2011 tentang Standar dan Pedoman Pengadaan Pekerjaan Konstruksi dan Jasa Konsultansi.

2017. Undang – Undang Republik Indonesia Nomor 2 Tahun 2017 tentang Jasa Konstruksi.

Alnuaimi et al., 2010, Causes, Effects, Benefits, and Remedies of Change Orders on Public Construction Projects in Oman, Journal of Construction Engineering and Management, ASCE, Vol. 136, No. 5, pp 615-622.

Chang, 2014, Principal-Agent Model of Risk Allocation in Construction Contracts and Its Critique, Journal of Construction Engineering and Management, ASCE, Vol. 140, No. 1.

Cheung et al., 2010, Exploring the Potential for Predicting Project Dispute Resolution Satisfaction Using Logistic Regression, Journal of Construction Engineering and Management, ASCE, Vol. 136, No. 5, pp 508-517.

Cheung et al., 2011, Withdrawal in Construction Project Dispute Negotiation, Journal of Construction Engineering and Management, ASCE, Vol. 137, No. 12, pp 1071-1079.

Cheung, Sai On and Karen H.Y.P, 2013, Anatomy of Construction Dispute, Journal of Construction Engineering and Management, ASCE, Vol. 139, No. 1, pp 15-23.

Cheung, Sai On and Tak Wing Yiu, 2006, Are Construction Disputes Inevitable, IEEE Transactions on Engineering Management, IEEE, Vol. 53, No. 3, pp 456-470.

Chow et al., 2012, Mediating and Moderating Effect of Tension on Withdrawal-Commitment Relationship in Construction Dispute Negotiation, Journal of Construction Engineering and Management, ASCE, Vol. 138, No. 10, pp 1230-1238.

CNN Indonesia, 2020, Rincian Infrastruktur yang Berhasil Dibangun dengan APBN 2020: https://www.cnnindonesia.com/ekonomi/20201222074813-532-584989/rincian-infrastruktur-yang-berhasil-dibangun-dengan-apbn-2020, cited on March 12 2021.

Haloush, Haitam, 2020, Rethinking Traditional Approaches of Parties' Autonomy in Construction Contracts: Decennial Liability as a Case Study, Emerald International Journal of Law and Management, Vol. 62, No. 6, pp 577-589.

Hardjomuljadi, 2017, Dispute Board as the Alternative Dispute Resolution for Construction in Indonesia Based on FIDIC Conditions of Contract and the Law No.2 Year 2017, Jurnal Teknologi (Sciences & Engineering), Vol.4, No. 20.

Hidayat. 2017. Anatomi Sengketa Konstruksi. Dr Dissertation, Institut Teknologi Bandung, Indonesia.

Jackson, Barbara J., 2010, Construction Management JumpStart 2nd Edition, Wiley Publishing, Inc., Indianapolis, Indiana.

Kementerian Keuangan Republik Indonesia, 2020, Indikator Konstruksi, Triwulan I-2020,

https://www.bps.go.id/publication/2020/10/19/3fd4b45fed0937cbd42efcbd/indikator-konstruksi-triwulan-i-2020.html, cited on March 12 2021.

Kementerian Keuangan Republik Indonesia, 2020, Indikator Konstruksi, Triwulan II-2020,

https://www.bps.go.id/publication/2020/12/21/b01c99ed67cf0862178979dd/indikator-konstruksi-triwulan-ii-2020.html, cited on March 12 2021.

Kementerian Keuangan Republik Indonesia, 2020, Indikator Konstruksi, Triwulan III-2020,

https://www.bps.go.id/publication/2021/02/11/be518bf28fbcd8fd91386346/indikator-konstruksi-triwulan-iii-2020.html, cited on March 12 2021.

Kementerian Keuangan Republik Indonesia, 2020, Pemerintah Siapkan Anggaran Infrastruktur Rp417,8 Triliun untuk Tahun 2021: https://www.kemenkeu.go.id/publikasi/berita/pemerintah-siapkan-anggaran-infrastruktur-rp417-8-triliun-untuk-tahun-2021/, cited on March 12 2021.

Kompas, 2020, Tahun Depan, Sektor Konstruksi Diperkirakan Tumbuh Hingga 6,7 Persen, https://properti.kompas.com/read/2020/12/30/130000821/tahun-depan-sektor-konstruksi-diperkirakan-tumbuh-hingga-67-persen, cited on March 12 2021.

Kumaraswamy, 1997, Conflicts, Claims, and Disputes in Construction, Engineering, Construction and Architectural Management, Vol. 4, No. 2, pp 95-111.

Levin, Paul, 1998, Construction Contract Claims, Changes & Dispute Resolution 2nd Edition, ASCE Press, Resston, Virginia.

Love et al., 2009, A Systemic View of Dispute Causation, International Journal of Managing Projects in Business, Emerald, Vol. 3, No. 4, pp 661-680.

Lu, Wenxue et al., 2015, Influence of Negotiation Risk Attitude and Power on Behaviors and Outcomes When Negotiating Construction Claims, Journal of Construction and Engineering Management, ASCE, Vol. 141, No. 2.

Menassa et al., 2010, Study of Real Options with Exogenous Competitive Entry to Analyze Dispute Resolution Ladder Investments in Architecture, Engineering, and Construction Projects, Journal of Construction Engineering and Management, ASCE, Vol. 136, No. 3, pp 377-390.

Minitab Blog Editor, 2013, How to Interpret Regression Analysis Results: P-values and Coefficients: https://blog.minitab.com/en/adventures-in-statistics-2/how-to-interpret-regression-analysis-results-p-values-and-coefficients, accessed on June 21 2021.

Ren et al., 2003, Multiagent System for Construction Claims Negotiation, Journal of Computing in Civil Engineering, ASCE, Vol. 141, No. 2.

Rosenfeld, 2014, Root-Cause Analysis of Construction Cost Overruns, Journal of Construction Engineering and Management, ASCE, Vol. 140, No. 1.

Singh and Robert L. K. Tiong, 2005, A Fuzzy Decision Framework for Contractor Selection, Journal of Construction Engineering and Management, ASCE, Vol. 131, No. 1, pp 62-70.

Song, Xinyi et al., 2012, Insurance as a Risk Management Tool for ADR Implementation in Construction Disputes, Journal of Construction and Engineering Management, ASCE, Vol. 138, No. 1, pp 14-21.

Watershed Associates, 2021, Negotiation Stages Introduction: https://www.watershedassociates.com/learning-center-item/negotiation-stages-introduction.html?, accessed on July 3 2021.

Williamson, O. E. 1985. The Economic Institutions of Capitalism, Free Press, New York.

Yiu, Tak Wing et al., 2012, Application of Bandura's Self-Efficacy Theory to Examining the Choice of Tactics in Construction Dispute Negotiation, Journal of Construction Engineering and Management, ASCE, Vol. 138, No. 3, pp 331-340.

Zadeh, L.A., 1965, Fuzzy Sets, Journal of Information and Control, Vol. 8, pp 338-353.

