

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

This research was obtained from the result of respondent's questionnaire. The questionnaire was distributed to seven construction projects in Yogyakarta. The questionnaire consists of three sections. The first section contained the demographic information about the respondent. The second section contained statements that represented the variables of conflict factors. While the third section contained statements that represented the variables that measure project performance. In accordance with the data obtained, the conclusions obtained are as follows:

1. Based on the respondent data, the majority of company type is contractor. Most of the respondents work as the site engineer with the last education of S1 (bachelor degree) and have 5 – 10 years of work experience. Most of the project type handled is infrastructure.
2. The first research objectives is to identify the dominant conflict factors of construction project in Yogyakarta. From the data analysis and discussion, it can be concluded that different interpretation in contract and specification is obtained as the dominant conflict factor different interpretation in contract and specification category, delay in making the decision and responding to problems is obtained as the dominant conflict factor in owner category, errors and omissions in design and specifications is obtained as the dominant conflict factor in the consultant category, work is not according to the time schedule is obtained as the dominant conflict factor in the contractor category, low productivity is obtained as the dominant conflict factor in the human resources category, and equipment and material delay is obtained as the dominant conflict factor in project condition category. It also can be concluded that the dominant conflict factor of construction projects in Yogyakarta is mostly caused by human resources factor.
3. The second research objectives is to identify the relationship between conflict and project performance. From the data analysis and discussion, it can be

concluded that the correlation value of conflict factors and project performance is very high with the correlation value of -0.976. It also can be concluded that project condition factor and project performance has very high correlation with the correlation value of -0.900. All the correlation results show the negative direction of the relationship, it means that if the value of conflict factors is high, then the performance of project is low and vice versa. Conflict should be avoided as much as possible. Therefore, the practitioners involved in construction industry should be mitigating the conflict in the initial stage so the performance of the project will be increased.

5.2. Recommendation

According to the result of the research and the conclusion above, several recommendations can be obtained:

1. A better understanding of conflict management are important for every practitioners involved in the construction project hence the practitioners involved in construction industry will be able to attain better performance by mitigating the conflict in the initial stage.
2. Future study can try to examine the relationship between conflict and project performance more specifically and try to examine the solution to solve the conflict.
3. Respondents should be more open in providing information for the research so that the data obtained by future researchers are more accurate which can helps to solve the problem in the construction industry.

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UNIVERSITAS ATMA JAYA YOGYAKARTA
Fakultas Teknik

Nomor : 1357/XI/U/2019
Hal : Ijin Penyebaran Kuesioner

Yogyakarta, 2 Mei 2019

Kepada
Yth.

Dengan hormat,

Dalam rangka menyelesaikan pendidikan Tingkat Sarjana pada Program Studi Teknik Sipil, Fakultas Teknik, Universitas Atma Jaya Yogyakarta setiap mahasiswa yang menempuh mata Kuliah Final Project, sangat membutuhkan data pendukung secara nyata dan lengkap.

Untuk itu kami mohon Bapak/Ibu berkenan memberikan ijin penyebaran kuesioner di Instansi yang Bapak/Ibu pimpin, dengan judul **“The Relationship Between Conflict And Project Performance”** kepada mahasiswa:

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Semester : Genap
Tahun Akademik : 2018/2019

Atas perhatian dan kerjasamanya, kami ucapkan terima kasih.

Wakil Dekan I

Dr. Eng. Luky Handoko, S.T., M.Eng.

THE RELATIONSHIP BETWEEN CONFLICT AND PROJECT PERFORMANCE

By:

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Program Studi Teknik Sipil Kelas Internasional

UNIVERSITAS ATMA JAYA YOGYAKARTA

Kuesioner Penelitian Tugas Akhir

Kuesioner ini bertujuan untuk mengetahui faktor-faktor dominan penyebab konflik dan hubungannya dengan kinerja proyek. Atas jawaban yang diberikan, saya ucapkan terima kasih.

DATA RESPONDEN

Berikan tanda (✓) atau (✗) pada kotak yang tersedia

Tipe perusahaan :

- Owner
- Konsultan
- Kontraktor

Jabatan :

- Project Manager
- Site Manager
- Site Engineer
- Quality Control

Pendidikan terakhir :

- ≤ D3
- S1
- ≥ S2

Pengalaman bekerja :

- < 5 tahun
- 5 – 10 tahun
- > 10 tahun

:

Tipe proyek

- Low rise building
- High rise building
- Industri
- Infrastruktur (jalan, jembatan, bendungan, dll)



FAKTOR-FAKTOR DOMINAN PENYEBAB KONFLIK

Berikut adalah faktor-faktor penyebab konflik yang terjadi dalam proyek konstruksi. Berikan penilaian Anda dengan memberikan tanda (✓) atau (✖) pada faktor penyebab konflik yang menurut Anda paling berpengaruh sebagai penyebab terjadinya konflik dan penilaian Anda terhadap realita yang terjadi sesuai dengan keadaan proyek yang sedang Anda tangani saat ini.

Keterangan:

Untuk tingkat pengaruh:

1 = Tidak Berpengaruh (TB)

2 = Kurang Berpengaruh (KB)

3 = Cukup Berpengaruh (CB)

4 = Berpengaruh (B)

5 = Sangat Berpengaruh (SB)

Untuk realita:

1 = Tidak Pernah Terjadi (TP)

2 = Jarang Terjadi (JR)

3 = Kadang Terjadi (KD)

4 = Sering Terjadi (SR)

5 = Selalu Terjadi (SL)

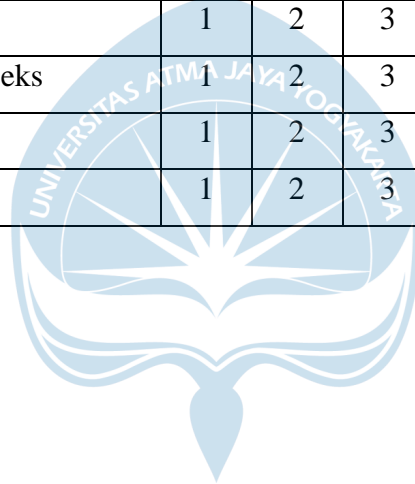
No	Deskripsi	Tingkat Pengaruh						Realita				
		TB	KB	CB	B	SB		TP	JR	KD	SR	SL
Faktor Kontrak dan Spesifikasi (X₁)												
1	Ruang lingkup kurang jelas	1	2	3	4	5		1	2	3	4	5
2	Change order	1	2	3	4	5		1	2	3	4	5

No	Deskripsi	Tingkat Pengaruh						Realita				
		TB	KB	CB	B	SB		TP	JR	KD	SR	SL
3	Dokumen kontrak dan spesifikasi kurang lengkap	1	2	3	4	5		1	2	3	4	5
4	Perbedaan penafsiran dalam dokumen kontrak dan spesifikasi	1	2	3	4	5		1	2	3	4	5
5	Adanya perbedaan metode kerja	1	2	3	4	5		1	2	3	4	5
Faktor Owner (X₂)												
1	Persyaratan dari pihak owner membingungkan	1	2	3	4	5		1	2	3	4	5
2	Buruknya manajemen, pengawasan, dan koordinasi dari pihak owner	1	2	3	4	5		1	2	3	4	5
3	Owner enggan untuk memeriksa keadaan proyek	1	2	3	4	5		1	2	3	4	5
4	Lambat dalam mengambil keputusan dan menanggapi permasalahan	1	2	3	4	5		1	2	3	4	5
5	Harapan dari owner yang tidak realistis	1	2	3	4	5		1	2	3	4	5
6	Harapan proyek selesai lebih awal	1	2	3	4	5		1	2	3	4	5
7	Mekanisme yang kurang jelas dalam memberikan permintaan informasi	1	2	3	4	5		1	2	3	4	5
8	Keterlambatan serah-terima	1	2	3	4	5		1	2	3	4	5

No	Deskripsi	Tingkat Pengaruh						Realita				
		TB	KB	CB	B	SB		TP	JR	KD	SR	SL
9	Kesalahan dalam estimasi anggaran	1	2	3	4	5		1	2	3	4	5
10	Keterlambatan pembayaran dari owner	1	2	3	4	5		1	2	3	4	5
Faktor Konsultan (X3)												
1	Konsultan kurang kompeten	1	2	3	4	5		1	2	3	4	5
2	Adanya kesalahan atau kelalaian dalam desain dan spesifikasi	1	2	3	4	5		1	2	3	4	5
3	Desain dan spesifikasi yang kurang lengkap	1	2	3	4	5		1	2	3	4	5
4	Desain cacat	1	2	3	4	5		1	2	3	4	5
5	Perhitungan progress pekerjaan yang kurang tepat	1	2	3	4	5		1	2	3	4	5
Faktor Kontraktor (X4)												
1	Kontraktor kurang kompeten	1	2	3	4	5		1	2	3	4	5
2	Buruknya manajemen, pengawasan, dan koordinasi dari pihak kontraktor	1	2	3	4	5		1	2	3	4	5
3	Kurang memahami kesepakatan yang ada dalam dokumen kontrak	1	2	3	4	5		1	2	3	4	5
4	Penjadwalan (scheduling) yang kurang baik	1	2	3	4	5		1	2	3	4	5

No	Deskripsi	Tingkat Pengaruh						Realita				
		TB	KB	CB	B	SB		TP	JR	KD	SR	SL
5	Pelaksanaan pekerjaan tidak sesuai dengan time schedule	1	2	3	4	5		1	2	3	4	5
6	Keterlambatan pekerjaan	1	2	3	4	5		1	2	3	4	5
7	Kesalahan dalam penggunaan material, tenaga kerja, dan metode kerja	1	2	3	4	5		1	2	3	4	5
8	Cacat pekerjaan	1	2	3	4	5		1	2	3	4	5
9	Kualitas pekerjaan tidak terpenuhi	1	2	3	4	5		1	2	3	4	5
10	Kesalahan dalam estimasi biaya pekerjaan	1	2	3	4	5		1	2	3	4	5
Faktor Sumber Daya Manusia (X₅)												
1	Penempatan karyawan tidak sesuai dengan bidangnya	1	2	3	4	5		1	2	3	4	5
2	Jumlah karyawan yang ada tidak sesuai dengan kebutuhan	1	2	3	4	5		1	2	3	4	5
3	Kurangnya tenaga kerja yang berpengalaman	1	2	3	4	5		1	2	3	4	5
4	Kurangnya komunikasi antar anggota tim	1	2	3	4	5		1	2	3	4	5
5	Produktifitas rendah	1	2	3	4	5		1	2	3	4	5

No	Deskripsi	Tingkat Pengaruh						Realita				
		TB	KB	CB	B	SB		TP	JR	KD	SR	SL
Faktor Kondisi Proyek (X₆)												
1	Tingkat ketidakpastian proyek yang tinggi	1	2	3	4	5		1	2	3	4	5
2	Keterlambatan peralatan dan material	1	2	3	4	5		1	2	3	4	5
3	Pekerjaan konstruksi yang cukup kompleks	1	2	3	4	5		1	2	3	4	5
4	Idle time peralatan yang tidak efektif	1	2	3	4	5		1	2	3	4	5
5	Perubahan kondisi proyek	1	2	3	4	5		1	2	3	4	5



HUBUNGAN KONFLIK DENGAN KINERJA PROYEK

Berikut adalah variabel-variabel untuk mengukur kinerja proyek. Berikan penilaian anda dengan memberikan tanda (✓) atau (✗) pada kotak yang tersedia sesuai dengan keadaan proyek pada saat pengisian kuesioner ini.

Keterangan:

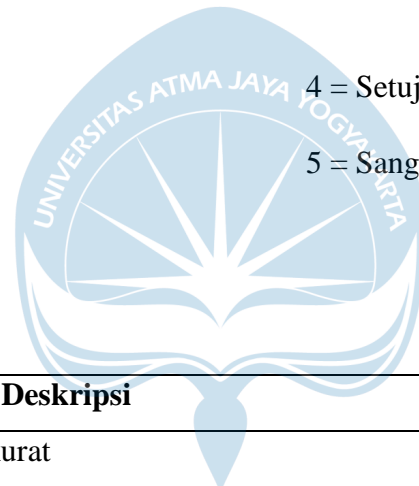
1 = Sangat Tidak Setuju

2 = Tidak Setuju

3 = Netral

4 = Setuju

5 = Sangat Setuju



No	Deskripsi	STS	TS	N	S	SS
1	Estimasi biaya proyek yang baik dan akurat	1	2	3	4	5
2	Pekerjaan proyek konstruksi selesai tepat waktu sesuai dengan jadwal dokumen kontrak	1	2	3	4	5
3	Hasil pekerjaan sesuai dengan kualitas mutu dan spesifikasi yang telah direncanakan	1	2	3	4	5
4	Tidak ada pekerjaan ulang (rework) selama konstruksi berlangsung	1	2	3	4	5
5	Tidak adanya kecelakaan kerja dalam pelaksanaan proyek	1	2	3	4	5
6	Semua pihak yang berkepentingan dalam proyek merasa puas dengan hasil pekerjaan	1	2	3	4	5

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 1					n	Score	Mean
		STB	TB	KB	B	SB			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	2	4	3	9	37	4,111
X1.2	Change order	0	0	0	6	3	9	39	4,333
X1.3	Incomplete contract document and specifications	0	0	4	3	2	9	34	3,778
X1.4	Different interpretation in contract document and spec	0	0	0	4	5	9	41	4,556
X1.5	The difference in the construction method	0	4	5	0	0	9	23	2,556
		Average Mean							3,867
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	2	4	3	0	9	28	3,111
X2.2	Poor system of management, supervision, and coordin	0	0	1	5	3	9	38	4,222
X2.3	Owner is reluctant to check the project's condition	0	0	0	4	5	9	41	4,556
X2.4	Delay in making the decision and responding to proble	0	0	0	3	6	9	42	4,667
X2.5	An unrealistic expectation of the owner	0	0	3	5	1	9	34	3,778
X2.6	Acceleration of construction work	0	0	2	4	3	9	37	4,111
X2.7	An unclear mechanism in providing information reques	0	0	0	5	4	9	40	4,444
X2.8	Late handover	0	0	5	3	1	9	32	3,556
X2.9	Errors in budget estimation	0	0	1	4	4	9	39	4,333
X2.10	Delay in running bill payment by the owner	0	0	1	3	5	9	40	4,444
		Average Mean							4,122
X3	Consultant Factor								
X3.1	Incompetent consultant	0	0	3	5	1	9	34	3,778
X3.2	Errors and omissions in design and specifications	0	0	0	3	6	9	42	4,667
X3.3	Incomplete design and specifications	0	0	1	6	2	9	37	4,111
X3.4	Defective design	0	0	0	4	5	9	41	4,556
X3.5	Errors in the calculation of work progress	0	3	4	2	0	9	26	2,889
		Average Mean							4,000
X4	Contractor Factor								
X4.1	Incompetent contractor	0	0	2	5	2	9	36	4,000
X4.2	Poor system of management, supervision, and coordin	0	0	2	4	3	9	37	4,111
X4.3	Lack of understanding in the contract document	0	0	4	3	2	9	34	3,778
X4.4	Mismanagement of scheduling	0	0	3	2	4	9	37	4,111
X4.5	Work is not according to the time schedule	0	0	0	5	4	9	40	4,444
X4.6	Delays in work progress	0	0	0	3	6	9	42	4,667
X4.7	Errors in material use, labour, and work methods	0	0	5	4	0	9	31	3,444
X4.8	Defects in construction work	0	0	2	4	3	9	37	4,111
X4.9	The quality is not fulfilled	0	0	1	5	3	9	38	4,222
X4.10	Errors in costs estimation	0	0	3	4	2	9	35	3,889
		Average Mean							4,078
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	0	5	4	9	40	4,444
X5.2	Number of employees are not in accordance with need	0	0	5	4	0	9	31	3,444
X5.3	Unavailable skilled labour	0	0	2	3	4	9	38	4,222
X5.4	Lack of communication between team members	0	0	3	4	2	9	35	3,889
X5.5	Low productivity	0	0	0	4	5	9	41	4,556
		Average Mean							4,111
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	2	5	2	0	9	27	3,000
X6.2	Equipment and material delay	0	0	2	4	3	9	37	4,111
X6.3	Complex construction work	0	4	2	3	0	9	26	2,889
X6.4	Ineffective equipment's idle time	0	0	1	4	4	9	39	4,333
X6.5	Change of site condition	0	0	3	4	2	9	35	3,889
		Average Mean							3,644

Attachment 3.a

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 2					n	Score	Mean
		STB	TB	KB	B	SB			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	6	2	2	10	36	3,600
X1.2	Change order	0	0	3	5	2	10	39	3,900
X1.3	Incomplete contract document and specifications	0	0	4	5	1	10	37	3,700
X1.4	Different interpretation in contract document and spec	0	0	0	4	6	10	46	4,600
X1.5	The difference in the construction method	0	4	5	1	0	10	27	2,700
		Average Mean							3,700
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	0	0	5	5	10	45	4,500
X2.2	Poor system of management, supervision, and coordin	0	0	4	4	2	10	38	3,800
X2.3	Owner is reluctant to check the project's condition	0	0	5	3	2	10	37	3,700
X2.4	Delay in making the decision and responding to proble	0	0	0	4	6	10	46	4,600
X2.5	An unrealistic expectation of the owner	0	0	3	4	3	10	40	4,000
X2.6	Acceleration of construction work	0	0	1	5	4	10	43	4,300
X2.7	An unclear mechanism in providing information reques	0	4	4	2	0	10	28	2,800
X2.8	Late handover	0	0	2	6	2	10	40	4,000
X2.9	Errors in budget estimation	0	0	3	3	4	10	41	4,100
X2.10	Delay in running bill payment by the owner	0	0	2	5	3	10	41	4,100
		Average Mean							3,990
X3	Consultant Factor								
X3.1	Incompetent consultant	0	0	3	5	2	10	39	3,900
X3.2	Errors and omissions in design and specifications	0	0	1	6	3	10	42	4,200
X3.3	Incomplete design and specifications	0	0	0	6	4	10	44	4,400
X3.4	Defective design	0	0	5	4	1	10	36	3,600
X3.5	Errors in the calculation of work progress	0	4	4	2	0	10	28	2,800
		Average Mean							3,780
X4	Contractor Factor								
X4.1	Incompetent contractor	0	0	2	5	3	10	41	4,100
X4.2	Poor system of management, supervision, and coordin	0	0	1	5	4	10	43	4,300
X4.3	Lack of understanding in the contract document	0	2	4	4	0	10	32	3,200
X4.4	Mismanagement of scheduling	0	0	0	5	5	10	45	4,500
X4.5	Work is not according to the time schedule	0	0	0	4	6	10	46	4,600
X4.6	Delays in work progress	0	0	0	6	4	10	44	4,400
X4.7	Errors in material use, labour, and work methods	0	0	5	4	1	10	36	3,600
X4.8	Defects in construction work	0	0	5	3	2	10	37	3,700
X4.9	The quality is not fulfilled	0	2	3	5	0	10	33	3,300
X4.10	Errors in costs estimation	0	0	1	6	3	10	42	4,200
		Average Mean							3,990
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	2	5	3	10	41	4,100
X5.2	Number of employees are not in accordance with need	0	4	4	2	0	10	28	2,800
X5.3	Unavailable skilled labour	0	0	0	6	4	10	44	4,400
X5.4	Lack of communication between team members	0	1	5	4	0	10	33	3,300
X5.5	Low productivity	0	0	0	5	5	10	45	4,500
		Average Mean							3,820
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	0	4	4	2	10	38	3,800
X6.2	Equipment and material delay	0	0	2	5	3	10	41	4,100
X6.3	Complex construction work	0	0	0	6	4	10	44	4,400
X6.4	Ineffective equipment's idle time	0	0	1	5	4	10	43	4,300
X6.5	Change of site condition	0	0	2	4	4	10	42	4,200
		Average Mean							4,160

Attachment 3.b

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 3					n	Score	Mean	
		STB	TB	KB	B	SB				
X1	Contract and Specification Factor									
X1.1	Project scope definition not clear	0	0	1	5	3	9	38	4,222	
X1.2	Change order	0	0	0	6	3	9	39	4,333	
X1.3	Incomplete contract document and specifications	2	3	4	0	0	9	20	2,222	
X1.4	Different interpretation in contract document and spec	0	0	0	5	4	9	40	4,444	
X1.5	The difference in the construction method	0	3	5	1	0	9	25	2,778	
		Average Mean								3,600
X2	Owner Factor									
X2.1	Confusing requirements of the owner	0	0	4	4	1	9	33	3,667	
X2.2	Poor system of management, supervision, and coordin	0	0	2	4	3	9	37	4,111	
X2.3	Owner is reluctant to check the project's condition	0	0	4	3	2	9	34	3,778	
X2.4	Delay in making the decision and responding to proble	0	0	0	6	3	9	39	4,333	
X2.5	An unrealistic expectation of the owner	0	0	2	5	2	9	36	4,000	
X2.6	Acceleration of construction work	0	0	2	4	3	9	37	4,111	
X2.7	An unclear mechanism in providing information reques	0	4	5	0	0	9	23	2,556	
X2.8	Late handover	0	0	4	4	1	9	33	3,667	
X2.9	Errors in budget estimation	0	0	2	3	4	9	38	4,222	
X2.10	Delay in running bill payment by the owner	0	0	1	4	4	9	39	4,333	
		Average Mean								3,878
X3	Consultant Factor									
X3.1	Incompetent consultant	0	0	4	4	1	9	33	3,667	
X3.2	Errors and omissions in design and specifications	0	0	0	5	4	9	40	4,444	
X3.3	Incomplete design and specifications	0	0	0	6	3	9	39	4,333	
X3.4	Defective design	0	0	2	4	3	9	37	4,111	
X3.5	Errors in the calculation of work progress	0	4	5	0	0	9	23	2,556	
		Average Mean								3,822
X4	Contractor Factor									
X4.1	Incompetent contractor	0	0	1	4	4	9	39	4,333	
X4.2	Poor system of management, supervision, and coordin	0	0	1	5	3	9	38	4,222	
X4.3	Lack of understanding in the contract document	0	0	3	4	2	9	35	3,889	
X4.4	Mismanagement of scheduling	0	0	0	6	3	9	39	4,333	
X4.5	Work is not according to the time schedule	0	0	0	5	4	9	40	4,444	
X4.6	Delays in work progress	0	0	0	4	5	9	41	4,556	
X4.7	Errors in material use, labour, and work methods	0	2	4	3	0	9	28	3,111	
X4.8	Defects in construction work	0	0	4	5	0	9	32	3,556	
X4.9	The quality is not fulfilled	0	3	4	2	0	9	26	2,889	
X4.10	Errors in costs estimation	0	0	2	4	3	9	37	4,111	
		Average Mean								3,944
X5	Human Resources Factor									
X5.1	Employee's placement is not according to the expertis	0	0	0	6	3	9	39	4,333	
X5.2	Number of employees are not in accordance with need	0	0	5	3	1	9	32	3,556	
X5.3	Unavailable skilled labour	0	0	2	3	4	9	38	4,222	
X5.4	Lack of communication between team members	0	0	2	4	3	9	37	4,111	
X5.5	Low productivity	0	0	0	5	4	9	40	4,444	
		Average Mean								4,133
X6	Project Condition Factor									
X6.1	High level of project uncertainty	0	0	2	4	3	9	37	4,111	
X6.2	Equipment and material delay	0	0	0	5	4	9	40	4,444	
X6.3	Complex construction work	0	0	5	3	1	9	32	3,556	
X6.4	Ineffective equipment's idle time	0	4	4	1	0	9	24	2,667	
X6.5	Change of site condition	0	0	4	3	2	9	34	3,778	
		Average Mean								3,711

Attachment 3.c

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 4					n	Score	Mean
		STB	TB	KB	B	SB			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	1	3	3	7	30	4,286
X1.2	Change order	0	0	0	5	2	7	30	4,286
X1.3	Incomplete contract document and specifications	0	0	1	4	2	7	29	4,143
X1.4	Different interpretation in contract document and spec	0	0	0	4	3	7	31	4,429
X1.5	The difference in the construction method	1	2	4	0	0	7	17	2,429
		Average Mean							3,914
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	0	1	3	3	7	30	4,286
X2.2	Poor system of management, supervision, and coordin	0	0	4	3	0	7	24	3,429
X2.3	Owner is reluctant to check the project's condition	0	0	2	4	1	7	27	3,857
X2.4	Delay in making the decision and responding to proble	0	0	0	2	5	7	33	4,714
X2.5	An unrealistic expectation of the owner	0	0	2	3	2	7	28	4,000
X2.6	Acceleration of construction work	0	0	3	4	0	7	25	3,571
X2.7	An unclear mechanism in providing information reques	1	3	3	0	0	7	16	2,286
X2.8	Late handover	0	0	0	4	3	7	31	4,429
X2.9	Errors in budget estimation	0	0	1	4	2	7	29	4,143
X2.10	Delay in running bill payment by the owner	0	0	0	3	4	7	32	4,571
		Average Mean							3,929
X3	Consultant Factor								
X3.1	Incompetent consultant	0	4	3	0	0	7	17	2,429
X3.2	Errors and omissions in design and specifications	0	0	0	4	3	7	31	4,429
X3.3	Incomplete design and specifications	0	0	3	3	1	7	26	3,714
X3.4	Defective design	0	0	0	5	2	7	30	4,286
X3.5	Errors in the calculation of work progress	0	4	3	0	0	7	17	2,429
		Average Mean							3,457
X4	Contractor Factor								
X4.1	Incompetent contractor	0	0	3	2	2	7	27	3,857
X4.2	Poor system of management, supervision, and coordin	0	0	0	4	3	7	31	4,429
X4.3	Lack of understanding in the contract document	0	3	4	0	0	7	18	2,571
X4.4	Mismanagement of scheduling	0	0	0	5	2	7	30	4,286
X4.5	Work is not according to the time schedule	0	0	0	3	4	7	32	4,571
X4.6	Delays in work progress	0	0	3	2	2	7	27	3,857
X4.7	Errors in material use, labour, and work methods	0	3	4	0	0	7	18	2,571
X4.8	Defects in construction work	0	0	2	3	2	7	28	4,000
X4.9	The quality is not fulfilled	0	0	0	4	3	7	31	4,429
X4.10	Errors in costs estimation	0	0	2	5	0	7	26	3,714
		Average Mean							3,829
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	0	4	3	7	31	4,429
X5.2	Number of employees are not in accordance with need	0	1	4	2	0	7	22	3,143
X5.3	Unavailable skilled labour	0	0	0	5	2	7	30	4,286
X5.4	Lack of communication between team members	0	0	4	3	0	7	24	3,429
X5.5	Low productivity	0	0	0	2	5	7	33	4,714
		Average Mean							4,000
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	0	3	2	2	7	27	3,857
X6.2	Equipment and material delay	0	0	0	4	3	7	31	4,429
X6.3	Complex construction work	0	0	4	3	0	7	24	3,429
X6.4	Ineffective equipment's idle time	0	4	3	0	0	7	17	2,429
X6.5	Change of site condition	0	3	3	1	0	7	19	2,714
		Average Mean							3,371

Attachment 3.d

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 5					n	Score	Mean	
		STB	TB	KB	B	SB				
X1	Contract and Specification Factor									
X1.1	Project scope definition not clear	0	0	3	3	1	7	26	3,714	
X1.2	Change order	0	0	0	5	2	7	30	4,286	
X1.3	Incomplete contract document and specifications	0	0	0	4	3	7	31	4,429	
X1.4	Different interpretation in contract document and spec	0	0	1	3	3	7	30	4,286	
X1.5	The difference in the construction method	1	4	2	0	0	7	15	2,143	
		Average Mean							3,771	
X2	Owner Factor									
X2.1	Confusing requirements of the owner	0	0	3	3	1	7	26	3,714	
X2.2	Poor system of management, supervision, and coordin	0	0	0	4	3	7	31	4,429	
X2.3	Owner is reluctant to check the project's condition	0	0	1	4	2	7	29	4,143	
X2.4	Delay in making the decision and responding to proble	0	0	0	5	2	7	30	4,286	
X2.5	An unrealistic expectation of the owner	0	3	4	0	0	7	18	2,571	
X2.6	Acceleration of construction work	0	0	3	3	1	7	26	3,714	
X2.7	An unclear mechanism in providing information reques	2	2	3	0	0	7	15	2,143	
X2.8	Late handover	0	0	2	2	3	7	29	4,143	
X2.9	Errors in budget estimation	0	0	3	3	1	7	26	3,714	
X2.10	Delay in running bill payment by the owner	0	0	1	4	2	7	29	4,143	
		Average Mean							3,700	
X3	Consultant Factor									
X3.1	Incompetent consultant	0	1	3	3	0	7	23	3,286	
X3.2	Errors and omissions in design and specifications	0	0	0	5	2	7	30	4,286	
X3.3	Incomplete design and specifications	0	0	0	3	4	7	32	4,571	
X3.4	Defective design	0	0	0	4	3	7	31	4,429	
X3.5	Errors in the calculation of work progress	0	2	4	1	0	7	20	2,857	
		Average Mean							3,886	
X4	Contractor Factor									
X4.1	Incompetent contractor	0	0	3	4	0	7	25	3,571	
X4.2	Poor system of management, supervision, and coordin	0	0	1	3	3	7	30	4,286	
X4.3	Lack of understanding in the contract document	0	0	4	2	1	7	25	3,571	
X4.4	Mismanagement of scheduling	0	0	0	3	4	7	32	4,571	
X4.5	Work is not according to the time schedule	0	0	0	5	2	7	30	4,286	
X4.6	Delays in work progress	0	0	2	3	2	7	28	4,000	
X4.7	Errors in material use, labour, and work methods	0	1	4	2	0	7	22	3,143	
X4.8	Defects in construction work	0	0	3	2	2	7	27	3,857	
X4.9	The quality is not fulfilled	0	0	3	3	1	7	26	3,714	
X4.10	Errors in costs estimation	0	0	1	3	3	7	30	4,286	
		Average Mean							3,929	
X5	Human Resources Factor									
X5.1	Employee's placement is not according to the expertis	0	0	0	5	2	7	30	4,286	
X5.2	Number of employees are not in accordance with need	0	0	4	3	0	7	24	3,429	
X5.3	Unavailable skilled labour	0	0	0	4	3	7	31	4,429	
X5.4	Lack of communication between team members	0	0	4	2	1	7	25	3,571	
X5.5	Low productivity	0	0	0	2	5	7	33	4,714	
		Average Mean							4,086	
X6	Project Condition Factor									
X6.1	High level of project uncertainty	0	0	1	4	2	7	29	4,143	
X6.2	Equipment and material delay	0	0	0	5	2	7	30	4,286	
X6.3	Complex construction work	0	0	3	4	0	7	25	3,571	
X6.4	Ineffective equipment's idle time	0	0	5	2	0	7	23	3,286	
X6.5	Change of site condition	0	0	0	4	3	7	31	4,429	
		Average Mean							3,943	

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 6					n	Score	Mean
		STB	TB	KB	B	SB			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	2	3	0	5	18	3,600
X1.2	Change order	0	0	0	4	1	5	21	4,200
X1.3	Incomplete contract document and specifications	0	0	1	3	1	5	20	4,000
X1.4	Different interpretation in contract document and spec	0	0	0	1	4	5	24	4,800
X1.5	The difference in the construction method	0	0	3	2	0	5	17	3,400
		Average Mean							4,000
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	0	1	2	2	5	21	4,200
X2.2	Poor system of management, supervision, and coordin	0	0	2	2	1	5	19	3,800
X2.3	Owner is reluctant to check the project's condition	0	0	0	3	2	5	22	4,400
X2.4	Delay in making the decision and responding to proble	0	0	0	1	4	5	24	4,800
X2.5	An unrealistic expectation of the owner	0	0	3	2	0	5	17	3,400
X2.6	Acceleration of construction work	0	0	1	1	3	5	22	4,400
X2.7	An unclear mechanism in providing information reques	0	0	3	2	0	5	17	3,400
X2.8	Late handover	0	0	0	2	3	5	23	4,600
X2.9	Errors in budget estimation	0	0	3	2	0	5	17	3,400
X2.10	Delay in running bill payment by the owner	0	0	0	2	3	5	23	4,600
		Average Mean							4,100
X3	Consultant Factor								
X3.1	Incompetent consultant	0	1	2	2	0	5	16	3,200
X3.2	Errors and omissions in design and specifications	0	0	0	2	3	5	23	4,600
X3.3	Incomplete design and specifications	0	0	1	2	2	5	21	4,200
X3.4	Defective design	0	0	2	3	0	5	18	3,600
X3.5	Errors in the calculation of work progress	0	0	3	2	0	5	17	3,400
		Average Mean							3,800
X4	Contractor Factor								
X4.1	Incompetent contractor	0	0	0	3	2	5	22	4,400
X4.2	Poor system of management, supervision, and coordin	0	0	2	2	1	5	19	3,800
X4.3	Lack of understanding in the contract document	0	0	1	3	1	5	20	4,000
X4.4	Mismanagement of scheduling	0	0	0	4	1	5	21	4,200
X4.5	Work is not according to the time schedule	0	0	0	3	2	5	22	4,400
X4.6	Delays in work progress	0	0	2	3	0	5	18	3,600
X4.7	Errors in material use, labour, and work methods	0	0	3	2	0	5	17	3,400
X4.8	Defects in construction work	0	1	2	2	0	5	16	3,200
X4.9	The quality is not fulfilled	0	0	3	2	0	5	17	3,400
X4.10	Errors in costs estimation	0	0	0	2	3	5	23	4,600
		Average Mean							3,900
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	0	3	2	5	22	4,400
X5.2	Number of employees are not in accordance with need	0	0	3	2	0	5	17	3,400
X5.3	Unavailable skilled labour	0	0	0	2	3	5	23	4,600
X5.4	Lack of communication between team members	0	0	2	3	0	5	18	3,600
X5.5	Low productivity	0	0	0	4	1	5	21	4,200
		Average Mean							4,040
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	0	3	2	0	5	17	3,400
X6.2	Equipment and material delay	0	0	0	3	2	5	22	4,400
X6.3	Complex construction work	0	0	3	1	1	5	18	3,600
X6.4	Ineffective equipment's idle time	0	1	2	2	0	5	16	3,200
X6.5	Change of site condition	0	0	1	2	2	5	21	4,200
		Average Mean							3,760

Attachment 3.f

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Project 7					n	Score	Mean
		STB	TB	KB	B	SB			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	3	1	0	4	13	3,250
X1.2	Change order	0	0	1	1	2	4	17	4,250
X1.3	Incomplete contract document and specifications	0	0	0	3	1	4	17	4,250
X1.4	Different interpretation in contract document and spec	0	0	0	2	2	4	18	4,500
X1.5	The difference in the construction method	0	1	3	0	0	4	11	2,750
		Average Mean							3,800
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	0	1	2	1	4	16	4,000
X2.2	Poor system of management, supervision, and coordin	0	0	2	2	0	4	14	3,500
X2.3	Owner is reluctant to check the project's condition	0	0	3	1	0	4	13	3,250
X2.4	Delay in making the decision and responding to proble	0	0	0	2	2	4	18	4,500
X2.5	An unrealistic expectation of the owner	0	0	2	1	1	4	15	3,750
X2.6	Acceleration of construction work	0	2	2	0	0	4	10	2,500
X2.7	An unclear mechanism in providing information reques	1	1	2	0	0	4	9	2,250
X2.8	Late handover	0	0	0	3	1	4	17	4,250
X2.9	Errors in budget estimation	0	0	0	1	3	4	19	4,750
X2.10	Delay in running bill payment by the owner	0	0	0	1	3	4	19	4,750
		Average Mean							3,750
X3	Consultant Factor								
X3.1	Incompetent consultant	0	0	2	1	1	4	15	3,750
X3.2	Errors and omissions in design and specifications	0	0	0	2	2	4	18	4,500
X3.3	Incomplete design and specifications	0	0	0	1	3	4	19	4,750
X3.4	Defective design	0	0	1	1	2	4	17	4,250
X3.5	Errors in the calculation of work progress	0	1	3	0	0	4	11	2,750
		Average Mean							4,000
X4	Contractor Factor								
X4.1	Incompetent contractor	0	0	2	1	1	4	15	3,750
X4.2	Poor system of management, supervision, and coordin	0	0	2	2	0	4	14	3,500
X4.3	Lack of understanding in the contract document	0	0	1	2	1	4	16	4,000
X4.4	Mismanagement of scheduling	0	0	0	2	2	4	18	4,500
X4.5	Work is not according to the time schedule	0	0	0	3	1	4	17	4,250
X4.6	Delays in work progress	0	0	0	3	1	4	17	4,250
X4.7	Errors in material use, labour, and work methods	0	0	2	1	1	4	15	3,750
X4.8	Defects in construction work	0	0	2	2	0	4	14	3,500
X4.9	The quality is not fulfilled	0	1	1	2	0	4	13	3,250
X4.10	Errors in costs estimation	0	0	1	1	2	4	17	4,250
		Average Mean							3,900
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	1	2	1	4	16	4,000
X5.2	Number of employees are not in accordance with need	0	0	0	2	2	4	18	4,500
X5.3	Unavailable skilled labour	0	1	1	2	0	4	13	3,250
X5.4	Lack of communication between team members	0	0	2	2	0	4	14	3,500
X5.5	Low productivity	0	0	0	3	1	4	17	4,250
		Average Mean							3,900
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	0	0	2	2	4	18	4,500
X6.2	Equipment and material delay	0	0	0	3	1	4	17	4,250
X6.3	Complex construction work	0	0	1	2	1	4	16	4,000
X6.4	Ineffective equipment's idle time	0	2	2	0	0	4	10	2,500
X6.5	Change of site condition	0	0	1	3	0	4	15	3,750
		Average Mean							3,800

Attachment 3.g

ANALYSIS OF CONFLICT FACTORS (INFLUENCE LEVEL)

No	Description	Total n	Total Score	Mean
X1	Contract and Specification Factor			
X1.1	Project scope definition not clear	51	198	3,882
X1.2	Change order	51	215	4,216
X1.3	Incomplete contract document and specifications	51	188	3,686
X1.4	Different interpretation in contract document and specifications	51	230	4,510
X1.5	The difference in the construction method	51	135	2,647
		Average Mean		3,788
X2	Owner Factor			
X2.1	Confusing requirements of the owner	51	199	3,902
X2.2	Poor system of management, supervision, and coordination	51	201	3,941
X2.3	Owner is reluctant to check the project's condition	51	203	3,980
X2.4	Delay in making the decision and responding to problems	51	232	4,549
X2.5	An unrealistic expectation of the owner	51	188	3,686
X2.6	Acceleration of construction work	51	200	3,922
X2.7	An unclear mechanism in providing information request	51	148	2,902
X2.8	Late handover	51	205	4,020
X2.9	Errors in budget estimation	51	209	4,098
X2.10	Delay in running bill payment by the owner	51	223	4,373
		Average Mean		3,937
X3	Consultant Factor			
X3.1	Incompetent consultant	51	177	3,471
X3.2	Errors and omissions in design and specifications	51	226	4,431
X3.3	Incomplete design and specifications	51	218	4,275
X3.4	Defective design	51	210	4,118
X3.5	Errors in the calculation of work progress	51	142	2,784
		Average Mean		3,816
X4	Contractor Factor			
X4.1	Incompetent contractor	51	205	4,020
X4.2	Poor system of management, supervision, and coordination	51	212	4,157
X4.3	Lack of understanding in the contract document	51	180	3,529
X4.4	Mismanagement of scheduling	51	222	4,353
X4.5	Work is not according to the time schedule	51	227	4,451
X4.6	Delays in work progress	51	217	4,255
X4.7	Errors in material use, labour, and work methods	51	167	3,275
X4.8	Defects in construction work	51	191	3,745
X4.9	The quality is not fulfilled	51	184	3,608
X4.10	Errors in costs estimation	51	210	4,118
		Average Mean		3,951
X5	Human Resources Factor			
X5.1	Employee's placement is not according to the expertise	51	219	4,294
X5.2	Number of employees are not in accordance with needs	51	172	3,373
X5.3	Unavailable skilled labour	51	217	4,255
X5.4	Lack of communication between team members	51	186	3,647
X5.5	Low productivity	51	230	4,510
		Average Mean		4,016
X6	Project Condition Factor			
X6.1	High level of project uncertainty	51	193	3,784
X6.2	Equipment and material delay	51	218	4,275
X6.3	Complex construction work	51	185	3,627
X6.4	Ineffective equipment's idle time	51	172	3,373
X6.5	Change of site condition	51	197	3,863
		Average Mean		3,784

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 1					n	Score	Mean	
		TP	JR	KD	SR	SL				
X1	Contract and Specification Factor									
X1.1	Project scope definition not clear	0	0	4	3	2	9	34	3,778	
X1.2	Change order	0	0	0	5	4	9	40	4,444	
X1.3	Incomplete contract document and specifications	0	3	5	1	0	9	25	2,778	
X1.4	Different interpretation in contract document and spec	0	0	0	6	3	9	39	4,333	
X1.5	The difference in the construction method	0	3	4	2	0	9	26	2,889	
		Average Mean								3,644
X2	Owner Factor									
X2.1	Confusing requirements of the owner	0	0	2	4	3	9	37	4,111	
X2.2	Poor system of management, supervision, and coordin	0	2	6	1	0	9	26	2,889	
X2.3	Owner is reluctant to check the project's condition	0	3	4	2	0	9	26	2,889	
X2.4	Delay in making the decision and responding to proble	0	0	0	5	4	9	40	4,444	
X2.5	An unrealistic expectation of the owner	0	0	5	3	1	9	32	3,556	
X2.6	Acceleration of construction work	0	0	1	3	5	9	40	4,444	
X2.7	An unclear mechanism in providing information reques	2	4	3	0	0	9	19	2,111	
X2.8	Late handover	0	4	5	0	0	9	23	2,556	
X2.9	Errors in budget estimation	0	5	3	1	0	9	23	2,556	
X2.10	Delay in running bill payment by the owner	0	0	5	4	0	9	31	3,444	
		Average Mean								3,300
X3	Consultant Factor									
X3.1	Incompetent consultant	0	4	3	2	0	9	25	2,778	
X3.2	Errors and omissions in design and specifications	0	0	6	3	0	9	30	3,333	
X3.3	Incomplete design and specifications	0	0	2	5	2	9	36	4,000	
X3.4	Defective design	0	2	5	2	0	9	27	3,000	
X3.5	Errors in the calculation of work progress	0	0	3	4	2	9	35	3,889	
		Average Mean								3,400
X4	Contractor Factor									
X4.1	Incompetent contractor	5	4	0	0	0	9	13	1,444	
X4.2	Poor system of management, supervision, and coordin	4	5	0	0	0	9	14	1,556	
X4.3	Lack of understanding in the contract document	2	4	3	0	0	9	19	2,111	
X4.4	Mismanagement of scheduling	0	0	1	5	3	9	38	4,222	
X4.5	Work is not according to the time schedule	0	0	2	4	3	9	37	4,111	
X4.6	Delays in work progress	0	0	2	5	2	9	36	4,000	
X4.7	Errors in material use, labour, and work methods	0	3	4	2	0	9	26	2,889	
X4.8	Defects in construction work	0	5	4	0	0	9	22	2,444	
X4.9	The quality is not fulfilled	0	3	4	2	0	9	26	2,889	
X4.10	Errors in costs estimation	2	5	2	0	0	9	18	2,000	
		Average Mean								2,767
X5	Human Resources Factor									
X5.1	Employee's placement is not according to the expertis	0	0	0	4	5	9	41	4,556	
X5.2	Number of employees are not in accordance with need	0	1	4	4	0	9	30	3,333	
X5.3	Unavailable skilled labour	0	0	2	6	1	9	35	3,889	
X5.4	Lack of communication between team members	2	4	3	0	0	9	19	2,111	
X5.5	Low productivity	0	0	2	3	4	9	38	4,222	
		Average Mean								3,622
X6	Project Condition Factor									
X6.1	High level of project uncertainty	0	4	5	0	0	9	23	2,556	
X6.2	Equipment and material delay	0	0	0	5	4	9	40	4,444	
X6.3	Complex construction work	0	2	4	3	0	9	28	3,111	
X6.4	Ineffective equipment's idle time	3	5	1	0	0	9	16	1,778	
X6.5	Change of site condition	4	2	3	0	0	9	17	1,889	
		Average Mean								2,756

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 2					n	Score	Mean	
		TP	JR	KD	SR	SL				
X1	Contract and Specification Factor									
X1.1	Project scope definition not clear	0	0	4	4	2	10	38	3,800	
X1.2	Change order	0	0	2	5	3	10	41	4,100	
X1.3	Incomplete contract document and specifications	0	4	4	2	0	10	28	2,800	
X1.4	Different interpretation in contract document and spec	0	0	0	7	3	10	43	4,300	
X1.5	The difference in the construction method	0	0	3	5	2	10	39	3,900	
		Average Mean							3,780	
X2	Owner Factor									
X2.1	Confusing requirements of the owner	0	0	0	4	6	10	46	4,600	
X2.2	Poor system of management, supervision, and coordin	0	3	4	3	0	10	30	3,000	
X2.3	Owner is reluctant to check the project's condition	0	5	4	1	0	10	26	2,600	
X2.4	Delay in making the decision and responding to proble	0	0	2	3	5	10	43	4,300	
X2.5	An unrealistic expectation of the owner	0	0	0	6	4	10	44	4,400	
X2.6	Acceleration of construction work	0	0	0	7	3	10	43	4,300	
X2.7	An unclear mechanism in providing information reques	0	4	4	2	0	10	28	2,800	
X2.8	Late handover	0	4	6	0	0	10	26	2,600	
X2.9	Errors in budget estimation	0	2	3	5	0	10	33	3,300	
X2.10	Delay in running bill payment by the owner	0	0	5	3	2	10	37	3,700	
		Average Mean							3,560	
X3	Consultant Factor									
X3.1	Incompetent consultant	0	0	5	4	1	10	36	3,600	
X3.2	Errors and omissions in design and specifications	0	0	2	5	3	10	41	4,100	
X3.3	Incomplete design and specifications	0	0	0	4	6	10	46	4,600	
X3.4	Defective design	0	0	4	4	2	10	38	3,800	
X3.5	Errors in the calculation of work progress	3	4	3	0	0	10	20	2,000	
		Average Mean							3,620	
X4	Contractor Factor									
X4.1	Incompetent contractor	0	0	4	3	3	10	39	3,900	
X4.2	Poor system of management, supervision, and coordin	3	5	2	0	0	10	19	1,900	
X4.3	Lack of understanding in the contract document	2	6	2	0	0	10	20	2,000	
X4.4	Mismanagement of scheduling	0	0	0	6	4	10	44	4,400	
X4.5	Work is not according to the time schedule	0	0	3	2	5	10	42	4,200	
X4.6	Delays in work progress	0	0	3	4	3	10	40	4,000	
X4.7	Errors in material use, labour, and work methods	1	4	5	0	0	10	24	2,400	
X4.8	Defects in construction work	0	0	2	6	2	10	40	4,000	
X4.9	The quality is not fulfilled	0	0	4	4	2	10	38	3,800	
X4.10	Errors in costs estimation	2	5	3	0	0	10	21	2,100	
		Average Mean							3,270	
X5	Human Resources Factor									
X5.1	Employee's placement is not according to the expertis	0	0	2	5	3	10	41	4,100	
X5.2	Number of employees are not in accordance with need	1	3	6	0	0	10	25	2,500	
X5.3	Unavailable skilled labour	0	0	1	6	3	10	42	4,200	
X5.4	Lack of communication between team members	2	4	4	0	0	10	22	2,200	
X5.5	Low productivity	0	0	2	4	4	10	42	4,200	
		Average Mean							3,440	
X6	Project Condition Factor									
X6.1	High level of project uncertainty	4	3	3	0	0	10	19	1,900	
X6.2	Equipment and material delay	0	0	2	5	3	10	41	4,100	
X6.3	Complex construction work	0	0	6	3	1	10	35	3,500	
X6.4	Ineffective equipment's idle time	2	4	4	0	0	10	22	2,200	
X6.5	Change of site condition	0	0	0	4	6	10	46	4,600	
		Average Mean							3,260	

Attachment 4.b

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 3					n	Score	Mean
		TP	JR	KD	SR	SL			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	4	5	0	9	32	3,556
X1.2	Change order	0	0	5	3	1	9	32	3,556
X1.3	Incomplete contract document and specifications	0	0	1	5	3	9	38	4,222
X1.4	Different interpretation in contract document and spec	0	0	2	3	4	9	38	4,222
X1.5	The difference in the construction method	1	4	4	0	0	9	21	2,333
		Average Mean							3,578
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	0	4	4	1	9	33	3,667
X2.2	Poor system of management, supervision, and coordin	3	6	0	0	0	9	15	1,667
X2.3	Owner is reluctant to check the project's condition	0	4	5	0	0	9	23	2,556
X2.4	Delay in making the decision and responding to proble	0	0	2	5	2	9	36	4,000
X2.5	An unrealistic expectation of the owner	0	0	2	6	1	9	35	3,889
X2.6	Acceleration of construction work	0	0	3	5	1	9	34	3,778
X2.7	An unclear mechanism in providing information reques	2	4	3	0	0	9	19	2,111
X2.8	Late handover	0	5	4	0	0	9	22	2,444
X2.9	Errors in budget estimation	0	3	5	1	0	9	25	2,778
X2.10	Delay in running bill payment by the owner	0	0	2	4	3	9	37	4,111
		Average Mean							3,100
X3	Consultant Factor								
X3.1	Incompetent consultant	1	3	5	0	0	9	22	2,444
X3.2	Errors and omissions in design and specifications	0	0	3	4	2	9	35	3,889
X3.3	Incomplete design and specifications	0	0	4	5	0	9	32	3,556
X3.4	Defective design	3	5	1	0	0	9	16	1,778
X3.5	Errors in the calculation of work progress	0	4	5	0	0	9	23	2,556
		Average Mean							2,844
X4	Contractor Factor								
X4.1	Incompetent contractor	3	4	2	0	0	9	17	1,889
X4.2	Poor system of management, supervision, and coordin	2	6	1	0	0	9	17	1,889
X4.3	Lack of understanding in the contract document	0	0	4	3	2	9	34	3,778
X4.4	Mismanagement of scheduling	0	0	2	4	3	9	37	4,111
X4.5	Work is not according to the time schedule	0	0	0	5	4	9	40	4,444
X4.6	Delays in work progress	0	0	3	4	2	9	35	3,889
X4.7	Errors in material use, labour, and work methods	0	0	2	5	2	9	36	4,000
X4.8	Defects in construction work	0	3	4	2	0	9	26	2,889
X4.9	The quality is not fulfilled	0	0	6	2	1	9	31	3,444
X4.10	Errors in costs estimation	3	4	2	0	0	9	17	1,889
		Average Mean							3,222
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	0	4	5	9	41	4,556
X5.2	Number of employees are not in accordance with need	0	0	4	5	0	9	32	3,556
X5.3	Unavailable skilled labour	0	0	2	4	3	9	37	4,111
X5.4	Lack of communication between team members	1	4	4	0	0	9	21	2,333
X5.5	Low productivity	0	0	2	3	4	9	38	4,222
		Average Mean							3,756
X6	Project Condition Factor								
X6.1	High level of project uncertainty	3	6	0	0	0	9	15	1,667
X6.2	Equipment and material delay	0	0	5	4	0	9	31	3,444
X6.3	Complex construction work	2	3	4	0	0	9	20	2,222
X6.4	Ineffective equipment's idle time	0	0	4	4	1	9	33	3,667
X6.5	Change of site condition	0	0	5	3	1	9	32	3,556
		Average Mean							2,911

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 4					n	Score	Mean	
		TP	JR	KD	SR	SL				
X1	Contract and Specification Factor									
X1.1	Project scope definition not clear	2	4	1	0	0	7	13	1,857	
X1.2	Change order	0	0	2	3	2	7	28	4,000	
X1.3	Incomplete contract document and specifications	0	0	1	4	2	7	29	4,143	
X1.4	Different interpretation in contract document and spec	0	0	0	3	4	7	32	4,571	
X1.5	The difference in the construction method	0	2	5	0	0	7	19	2,714	
		Average Mean							3,457	
X2	Owner Factor									
X2.1	Confusing requirements of the owner	0	0	1	3	3	7	30	4,286	
X2.2	Poor system of management, supervision, and coordin	1	2	4	0	0	7	17	2,429	
X2.3	Owner is reluctant to check the project's condition	0	1	3	3	0	7	23	3,286	
X2.4	Delay in making the decision and responding to proble	0	0	0	4	3	7	31	4,429	
X2.5	An unrealistic expectation of the owner	0	0	3	3	1	7	26	3,714	
X2.6	Acceleration of construction work	0	0	1	4	2	7	29	4,143	
X2.7	An unclear mechanism in providing information reques	2	3	2	0	0	7	14	2,000	
X2.8	Late handover	0	0	1	3	3	7	30	4,286	
X2.9	Errors in budget estimation	0	0	0	3	4	7	32	4,571	
X2.10	Delay in running bill payment by the owner	0	0	2	3	2	7	28	4,000	
		Average Mean							3,714	
X3	Consultant Factor									
X3.1	Incompetent consultant	2	4	1	0	0	7	13	1,857	
X3.2	Errors and omissions in design and specifications	0	0	1	4	2	7	29	4,143	
X3.3	Incomplete design and specifications	2	4	1	0	0	7	13	1,857	
X3.4	Defective design	2	5	0	0	0	7	12	1,714	
X3.5	Errors in the calculation of work progress	0	2	4	1	0	7	20	2,857	
		Average Mean							2,486	
X4	Contractor Factor									
X4.1	Incompetent contractor	0	3	4	0	0	7	18	2,571	
X4.2	Poor system of management, supervision, and coordin	2	3	2	0	0	7	14	2,000	
X4.3	Lack of understanding in the contract document	0	0	4	2	1	7	25	3,571	
X4.4	Mismanagement of scheduling	0	0	0	2	5	7	33	4,714	
X4.5	Work is not according to the time schedule	0	0	0	4	3	7	31	4,429	
X4.6	Delays in work progress	0	0	3	2	2	7	27	3,857	
X4.7	Errors in material use, labour, and work methods	0	0	2	3	2	7	28	4,000	
X4.8	Defects in construction work	0	0	4	2	1	7	25	3,571	
X4.9	The quality is not fulfilled	0	0	3	2	2	7	27	3,857	
X4.10	Errors in costs estimation	0	0	1	3	3	7	30	4,286	
		Average Mean							3,686	
X5	Human Resources Factor									
X5.1	Employee's placement is not according to the expertis	0	0	0	4	3	7	31	4,429	
X5.2	Number of employees are not in accordance with need	0	0	5	2	0	7	23	3,286	
X5.3	Unavailable skilled labour	0	0	2	3	2	7	28	4,000	
X5.4	Lack of communication between team members	1	4	2	0	0	7	15	2,143	
X5.5	Low productivity	0	0	1	4	2	7	29	4,143	
		Average Mean							3,600	
X6	Project Condition Factor									
X6.1	High level of project uncertainty	0	0	0	5	2	7	30	4,286	
X6.2	Equipment and material delay	0	0	3	3	1	7	26	3,714	
X6.3	Complex construction work	0	3	4	0	0	7	18	2,571	
X6.4	Ineffective equipment's idle time	2	4	1	0	0	7	13	1,857	
X6.5	Change of site condition	3	4	0	0	0	7	11	1,571	
		Average Mean							2,800	

Attachment 4.d

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 5					n	Score	Mean
		TP	JR	KD	SR	SL			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	0	0	4	3	0	7	24	3,429
X1.2	Change order	0	0	0	5	2	7	30	4,286
X1.3	Incomplete contract document and specifications	0	0	3	2	2	7	27	3,857
X1.4	Different interpretation in contract document and spec	0	0	0	3	4	7	32	4,571
X1.5	The difference in the construction method	1	4	2	0	0	7	15	2,143
		Average Mean							3,657
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	0	3	2	2	7	27	3,857
X2.2	Poor system of management, supervision, and coordin	0	0	1	3	3	7	30	4,286
X2.3	Owner is reluctant to check the project's condition	0	0	4	3	0	7	24	3,429
X2.4	Delay in making the decision and responding to proble	0	0	1	4	2	7	29	4,143
X2.5	An unrealistic expectation of the owner	0	3	4	0	0	7	18	2,571
X2.6	Acceleration of construction work	0	0	3	3	1	7	26	3,714
X2.7	An unclear mechanism in providing information reques	2	3	2	0	0	7	14	2,000
X2.8	Late handover	0	0	3	4	0	7	25	3,571
X2.9	Errors in budget estimation	0	0	2	2	3	7	29	4,143
X2.10	Delay in running bill payment by the owner	0	0	0	5	2	7	30	4,286
		Average Mean							3,600
X3	Consultant Factor								
X3.1	Incompetent consultant	3	4	0	0	0	7	11	1,571
X3.2	Errors and omissions in design and specifications	0	0	0	4	3	7	31	4,429
X3.3	Incomplete design and specifications	0	1	3	3	0	7	23	3,286
X3.4	Defective design	2	2	3	0	0	7	15	2,143
X3.5	Errors in the calculation of work progress	0	4	3	0	0	7	17	2,429
		Average Mean							2,771
X4	Contractor Factor								
X4.1	Incompetent contractor	2	4	1	0	0	7	13	1,857
X4.2	Poor system of management, supervision, and coordin	2	2	3	0	0	7	15	2,143
X4.3	Lack of understanding in the contract document	0	0	4	3	0	7	24	3,429
X4.4	Mismanagement of scheduling	0	0	0	5	2	7	30	4,286
X4.5	Work is not according to the time schedule	0	0	0	3	4	7	32	4,571
X4.6	Delays in work progress	0	0	2	3	2	7	28	4,000
X4.7	Errors in material use, labour, and work methods	1	3	3	0	0	7	16	2,286
X4.8	Defects in construction work	0	2	5	0	0	7	19	2,714
X4.9	The quality is not fulfilled	0	0	4	2	1	7	25	3,571
X4.10	Errors in costs estimation	0	0	4	3	0	7	24	3,429
		Average Mean							3,229
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	2	2	3	7	29	4,143
X5.2	Number of employees are not in accordance with need	1	3	3	0	0	7	16	2,286
X5.3	Unavailable skilled labour	0	0	2	5	0	7	26	3,714
X5.4	Lack of communication between team members	0	4	3	0	0	7	17	2,429
X5.5	Low productivity	0	0	0	3	4	7	32	4,571
		Average Mean							3,429
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	0	0	4	3	7	31	4,429
X6.2	Equipment and material delay	0	0	2	3	2	7	28	4,000
X6.3	Complex construction work	1	3	3	0	0	7	16	2,286
X6.4	Ineffective equipment's idle time	0	0	4	3	0	7	24	3,429
X6.5	Change of site condition	0	3	4	0	0	7	18	2,571
		Average Mean							3,343

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 6					n	Score	Mean	
		TP	JR	KD	SR	SL				
X1	Contract and Specification Factor									
X1.1	Project scope definition not clear	0	2	3	0	0	5	13	2,600	
X1.2	Change order	0	0	0	3	2	5	22	4,400	
X1.3	Incomplete contract document and specifications	2	2	1	0	0	5	9	1,800	
X1.4	Different interpretation in contract document and spec	0	0	0	4	1	5	21	4,200	
X1.5	The difference in the construction method	0	3	2	0	0	5	12	2,400	
		Average Mean								3,080
X2	Owner Factor									
X2.1	Confusing requirements of the owner	1	2	2	0	0	5	11	2,200	
X2.2	Poor system of management, supervision, and coordin	0	3	2	0	0	5	12	2,400	
X2.3	Owner is reluctant to check the project's condition	1	2	2	0	0	5	11	2,200	
X2.4	Delay in making the decision and responding to proble	0	0	3	2	0	5	17	3,400	
X2.5	An unrealistic expectation of the owner	0	0	2	2	1	5	19	3,800	
X2.6	Acceleration of construction work	0	0	0	3	2	5	22	4,400	
X2.7	An unclear mechanism in providing information reques	3	2	0	0	0	5	7	1,400	
X2.8	Late handover	0	3	2	0	0	5	12	2,400	
X2.9	Errors in budget estimation	2	2	1	0	0	5	9	1,800	
X2.10	Delay in running bill payment by the owner	0	0	1	4	0	5	19	3,800	
		Average Mean								2,780
X3	Consultant Factor									
X3.1	Incompetent consultant	2	3	0	0	0	5	8	1,600	
X3.2	Errors and omissions in design and specifications	0	0	2	2	1	5	19	3,800	
X3.3	Incomplete design and specifications	0	0	3	2	0	5	17	3,400	
X3.4	Defective design	1	3	1	0	0	5	10	2,000	
X3.5	Errors in the calculation of work progress	0	2	3	0	0	5	13	2,600	
		Average Mean								2,680
X4	Contractor Factor									
X4.1	Incompetent contractor	0	2	3	0	0	5	13	2,600	
X4.2	Poor system of management, supervision, and coordin	2	2	1	0	0	5	9	1,800	
X4.3	Lack of understanding in the contract document	0	3	2	0	0	5	12	2,400	
X4.4	Mismanagement of scheduling	0	2	3	0	0	5	13	2,600	
X4.5	Work is not according to the time schedule	0	0	2	3	0	5	18	3,600	
X4.6	Delays in work progress	0	0	1	2	2	5	21	4,200	
X4.7	Errors in material use, labour, and work methods	1	2	2	0	0	5	11	2,200	
X4.8	Defects in construction work	0	0	3	2	0	5	17	3,400	
X4.9	The quality is not fulfilled	0	0	4	1	0	5	16	3,200	
X4.10	Errors in costs estimation	0	3	2	0	0	5	12	2,400	
		Average Mean								2,840
X5	Human Resources Factor									
X5.1	Employee's placement is not according to the expertis	0	0	1	4	0	5	19	3,800	
X5.2	Number of employees are not in accordance with need	1	2	2	0	0	5	11	2,200	
X5.3	Unavailable skilled labour	0	0	0	2	3	5	23	4,600	
X5.4	Lack of communication between team members	0	2	3	0	0	5	13	2,600	
X5.5	Low productivity	0	0	0	3	2	5	22	4,400	
		Average Mean								3,520
X6	Project Condition Factor									
X6.1	High level of project uncertainty	2	3	0	0	0	5	8	1,600	
X6.2	Equipment and material delay	0	3	2	0	0	5	12	2,400	
X6.3	Complex construction work	1	4	0	0	0	5	9	1,800	
X6.4	Ineffective equipment's idle time	0	2	2	1	0	5	14	2,800	
X6.5	Change of site condition	3	2	0	0	0	5	7	1,400	
		Average Mean								2,000

Attachment 4.f

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Project 7					n	Score	Mean
		TP	JR	KD	SR	SL			
X1	Contract and Specification Factor								
X1.1	Project scope definition not clear	1	1	2	0	0	4	9	2,250
X1.2	Change order	0	1	3	0	0	4	11	2,750
X1.3	Incomplete contract document and specifications	0	0	1	2	1	4	16	4,000
X1.4	Different interpretation in contract document and spec	0	2	2	0	0	4	10	2,500
X1.5	The difference in the construction method	3	1	0	0	0	4	5	1,250
		Average Mean							2,550
X2	Owner Factor								
X2.1	Confusing requirements of the owner	0	2	2	0	0	4	10	2,500
X2.2	Poor system of management, supervision, and coordin	0	0	0	2	2	4	18	4,500
X2.3	Owner is reluctant to check the project's condition	0	0	0	1	3	4	19	4,750
X2.4	Delay in making the decision and responding to proble	0	0	1	1	2	4	17	4,250
X2.5	An unrealistic expectation of the owner	1	2	1	0	0	4	8	2,000
X2.6	Acceleration of construction work	0	2	2	0	0	4	10	2,500
X2.7	An unclear mechanism in providing information reques	1	3	0	0	0	4	7	1,750
X2.8	Late handover	0	0	0	1	3	4	19	4,750
X2.9	Errors in budget estimation	0	0	1	2	1	4	16	4,000
X2.10	Delay in running bill payment by the owner	0	0	0	2	2	4	18	4,500
		Average Mean							3,550
X3	Consultant Factor								
X3.1	Incompetent consultant	1	1	2	0	0	4	9	2,250
X3.2	Errors and omissions in design and specifications	0	0	3	1	0	4	13	3,250
X3.3	Incomplete design and specifications	0	0	0	2	2	4	18	4,500
X3.4	Defective design	0	2	2	0	0	4	10	2,500
X3.5	Errors in the calculation of work progress	0	0	2	2	0	4	14	3,500
		Average Mean							3,200
X4	Contractor Factor								
X4.1	Incompetent contractor	1	3	0	0	0	4	7	1,750
X4.2	Poor system of management, supervision, and coordin	0	1	2	1	0	4	12	3,000
X4.3	Lack of understanding in the contract document	0	0	2	1	1	4	15	3,750
X4.4	Mismanagement of scheduling	0	1	3	0	0	4	11	2,750
X4.5	Work is not according to the time schedule	0	0	0	3	1	4	17	4,250
X4.6	Delays in work progress	0	0	1	2	1	4	16	4,000
X4.7	Errors in material use, labour, and work methods	0	2	2	0	0	4	10	2,500
X4.8	Defects in construction work	0	2	1	1	0	4	11	2,750
X4.9	The quality is not fulfilled	0	3	1	0	0	4	9	2,250
X4.10	Errors in costs estimation	0	0	1	2	1	4	16	4,000
		Average Mean							3,100
X5	Human Resources Factor								
X5.1	Employee's placement is not according to the expertis	0	0	3	1	0	4	13	3,250
X5.2	Number of employees are not in accordance with need	1	1	2	0	0	4	9	2,250
X5.3	Unavailable skilled labour	0	0	1	1	2	4	17	4,250
X5.4	Lack of communication between team members	2	2	0	0	0	4	6	1,500
X5.5	Low productivity	0	0	1	3	0	4	15	3,750
		Average Mean							3,000
X6	Project Condition Factor								
X6.1	High level of project uncertainty	0	0	2	2	0	4	14	3,500
X6.2	Equipment and material delay	1	3	0	0	0	4	7	1,750
X6.3	Complex construction work	1	2	1	0	0	4	8	2,000
X6.4	Ineffective equipment's idle time	0	2	2	0	0	4	10	2,500
X6.5	Change of site condition	1	1	2	0	0	4	9	2,250
		Average Mean							2,400

Attachment 4.g

ANALYSIS OF CONFLICT FACTORS (OCCURRENCE LEVEL)

No	Description	Total n	Total Score	Mean
X1	Contract and Specification Factor			
X1.1	Project scope definition not clear	51	163	3,196
X1.2	Change order	51	204	4,000
X1.3	Incomplete contract document and specifications	51	172	3,373
X1.4	Different interpretation in contract document and specifications	51	215	4,216
X1.5	The difference in the construction method	51	137	2,686
		Average Mean		3,494
X2	Owner Factor			
X2.1	Confusing requirements of the owner	51	194	3,804
X2.2	Poor system of management, supervision, and coordination	51	148	2,902
X2.3	Owner is reluctant to check the project's condition	51	152	2,980
X2.4	Delay in making the decision and responding to problems	51	213	4,176
X2.5	An unrealistic expectation of the owner	51	182	3,569
X2.6	Acceleration of construction work	51	204	4,000
X2.7	An unclear mechanism in providing information request	51	108	2,118
X2.8	Late handover	51	157	3,078
X2.9	Errors in budget estimation	51	167	3,275
X2.10	Delay in running bill payment by the owner	51	200	3,922
		Average Mean		3,382
X3	Consultant Factor			
X3.1	Incompetent consultant	51	124	2,431
X3.2	Errors and omissions in design and specifications	51	198	3,882
X3.3	Incomplete design and specifications	51	185	3,627
X3.4	Defective design	51	128	2,510
X3.5	Errors in the calculation of work progress	51	142	2,784
		Average Mean		3,047
X4	Contractor Factor			
X4.1	Incompetent contractor	51	120	2,353
X4.2	Poor system of management, supervision, and coordination	51	100	1,961
X4.3	Lack of understanding in the contract document	51	149	2,922
X4.4	Mismanagement of scheduling	51	206	4,039
X4.5	Work is not according to the time schedule	51	217	4,255
X4.6	Delays in work progress	51	203	3,980
X4.7	Errors in material use, labour, and work methods	51	151	2,961
X4.8	Defects in construction work	51	160	3,137
X4.9	The quality is not fulfilled	51	172	3,373
X4.10	Errors in costs estimation	51	138	2,706
		Average Mean		3,169
X5	Human Resources Factor			
X5.1	Employee's placement is not according to the expertise	51	215	4,216
X5.2	Number of employees are not in accordance with needs	51	146	2,863
X5.3	Unavailable skilled labour	51	208	4,078
X5.4	Lack of communication between team members	51	113	2,216
X5.5	Low productivity	51	216	4,235
		Average Mean		3,522
X6	Project Condition Factor			
X6.1	High level of project uncertainty	51	140	2,745
X6.2	Equipment and material delay	51	185	3,627
X6.3	Complex construction work	51	134	2,627
X6.4	Ineffective equipment's idle time	51	132	2,588
X6.5	Change of site condition	51	140	2,745
		Average Mean		2,867

Attachment 4.h

ANALYSIS OF PROJECT PERFORMANCE

No	Description	Project 1					n	Score	Mean	
		STS	TS	N	S	SS				
Y	Project Performance									
Y1	Accurate cost estimation	0	4	4	1	0	9	24	2,667	
Y2	Construction project is completed on time	0	0	7	2	0	9	29	3,222	
Y3	Work results are in accordance with the quality	0	2	6	1	0	9	26	2,889	
Y4	No rework during construction work	0	0	6	3	0	9	30	3,333	
Y5	No accident happened during construction work	0	2	4	3	0	9	28	3,111	
Y6	All parties are satisfied with the results of the work	0	0	7	2	0	9	29	3,222	
		Average Mean								3,074

No	Description	Project 2					n	Score	Mean	
		STS	TS	N	S	SS				
Y	Project Performance									
Y1	Accurate cost estimation	0	0	5	3	2	10	37	3,700	
Y2	Construction project is completed on time	4	5	1	0	0	10	17	1,700	
Y3	Work results are in accordance with the quality	0	4	4	2	0	10	28	2,800	
Y4	No rework during construction work	3	5	2	0	0	10	19	1,900	
Y5	No accident happened during construction work	2	4	4	0	0	10	22	2,200	
Y6	All parties are satisfied with the results of the work	0	3	5	2	0	10	29	2,900	
		Average Mean								2,533

No	Description	Project 3					n	Score	Mean	
		STS	TS	N	S	SS				
Y	Project Performance									
Y1	Accurate cost estimation	0	0	6	3	0	9	30	3,333	
Y2	Construction project is completed on time	0	4	5	0	0	9	23	2,556	
Y3	Work results are in accordance with the quality	0	4	4	1	0	9	24	2,667	
Y4	No rework during construction work	0	4	4	1	0	9	24	2,667	
Y5	No accident happened during construction work	0	1	5	3	0	9	29	3,222	
Y6	All parties are satisfied with the results of the work	0	0	5	4	0	9	31	3,444	
		Average Mean								2,981

No	Description	Project 4					n	Score	Mean	
		STS	TS	N	S	SS				
Y	Project Performance									
Y1	Accurate cost estimation	1	4	2	0	0	7	15	2,143	
Y2	Construction project is completed on time	2	4	1	0	0	7	13	1,857	
Y3	Work results are in accordance with the quality	0	0	3	4	0	7	25	3,571	
Y4	No rework during construction work	0	0	2	3	2	7	28	4,000	
Y5	No accident happened during construction work	0	0	0	4	3	7	31	4,429	
Y6	All parties are satisfied with the results of the work	1	3	3	0	0	7	16	2,286	
		Average Mean								3,048

ANALYSIS OF PROJECT PERFORMANCE

No	Description	Project 5					n	Score	Mean
		STS	TS	N	S	SS			
Y	Project Performance								
Y1	Accurate cost estimation	0	2	4	1	0	7	20	2,857
Y2	Construction project is completed on time	0	4	3	0	0	7	17	2,429
Y3	Work results are in accordance with the quality	0	0	5	2	0	7	23	3,286
Y4	No rework during construction work	0	3	4	1	0	8	22	2,750
Y5	No accident happened during construction work	0	0	3	3	1	7	26	3,714
Y6	All parties are satisfied with the results of the work	0	2	4	1	0	7	20	2,857
								Average Mean	2,982

No	Description	Project 6					n	Score	Mean
		STS	TS	N	S	SS			
Y	Project Performance								
Y1	Accurate cost estimation	0	2	2	1	0	5	14	2,800
Y2	Construction project is completed on time	0	0	1	3	1	5	20	4,000
Y3	Work results are in accordance with the quality	0	0	2	2	1	5	19	3,800
Y4	No rework during construction work	0	0	2	3	0	5	18	3,600
Y5	No accident happened during construction work	0	0	0	3	2	5	22	4,400
Y6	All parties are satisfied with the results of the work	0	0	1	2	2	5	21	4,200
								Average Mean	3,800

No	Description	Project 7					n	Score	Mean
		STS	TS	N	S	SS			
Y	Project Performance								
Y1	Accurate cost estimation	0	0	0	2	2	4	18	4,500
Y2	Construction project is completed on time	0	0	1	3	0	4	15	3,750
Y3	Work results are in accordance with the quality	0	0	2	1	1	4	15	3,750
Y4	No rework during construction work	0	0	1	3	0	4	15	3,750
Y5	No accident happened during construction work	0	1	3	0	0	4	11	2,750
Y6	All parties are satisfied with the results of the work	0	0	1	2	1	4	16	4,000
								Average Mean	3,750

No	Description	n	Score	Mean
Y	Project Performance			
Y1	Accurate cost estimation	51	158	3,098
Y2	Construction project is completed on time	51	134	2,627
Y3	Work results are in accordance with the quality	51	160	3,137
Y4	No rework during construction work	52	156	3,000
Y5	No accident happened during construction work	51	169	3,314
Y6	All parties are satisfied with the results of the work	51	162	3,176
			Average Mean	3,059