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APPENDIXES

Annex-A

M.Sc. in Construction Project Management

Department of Civil Engineering

University of Moratuwa

Dear Sir / Madam,

I am a Post Graduate student at Department of Civil Engineering, Faculty of Engineering, University of Moratuwa. As a partial fulfillment of the M.Sc. degree programme, I need to carry out a research project in the study area. The study details are as follows:

Title:

INVESTIGATION OF CRITICAL SUCCESS FACTORS (CSFs) FOR THE DEPLOYMENT OF CONSTRUCTION RISK MANAGEMENT PRACTICES IN SRI LANKA

Aim:

This research is aimed to answer the question "how the risk management practices could be promoted and enhanced in Sri Lankan construction industry?"

Objectives:

- To study what risk management techniques are actually used at the project level or organization level.
- To identify the barriers to the adoption, usage, and implementation of risk management systems in Sri Lankan construction projects.
- To develop the Critical Success Factors (CSFs) for implementing risk management systems in Sri Lankan construction projects.

This study is designed to be carried out using **DELPHI TECHNIQUE**. The Delphi technique is a method which is used to collect data from a panel of experts in several rounds in order to achieve a consensus on the decision. The participants of the survey

are not supposed to interrelate with each other and their views are kept secret while the summarized result from the previous round is provided for them to reconsider their opinions.

I am pleased to inform you that you have been selected to take part in this survey and kindly request your fullest participation and cooperation throughout the survey with two rounds. For the first round, it would be grateful if you could spend your valuable time to answer all the questions in this questionnaire, as it is directed. This questionnaire will be used for academic purpose only. It is designed as a tool for collecting primary data for the research.

I assure that this information will be kept confidential and only the summarized results will be provided in the report and therefore no specific reference will be made to experts who take part in this survey.

Thank you.

Yours Faithfully,

ALM. Risath
M.Sc. Candidate
Mobile : 077-254-6898

Research Supervisor:
Dr. Chandana Siriwardana
Senior Lecturer
Department of Civil Engineering
Faculty of Engineering
University of Moratuwa
Mobile: 077-755-5655

This survey is designed to be carried out in three Delphi rounds.

DELPHI ROUND # 01

QUESTIONNAIRE – PART 1

General Information

Name of the respondent :

Name of the organization :

Designation :

Working experience :

1 - 5 Years ☐

10 - 15 Years ☐

16 - 20 Years ☐

21 - 25 Years ☐

26 - 30 Years ☐

Above 30 Years ☐

Email :

Telephone / Mobile :

QUESTIONNAIRE – PART 2

This part of the questionnaire will examine the current risk management practices used in Sri Lankan construction projects. Various risk management techniques identified from previous studies are listed below and the respondents are requested to put their view on **To What Extent** these techniques are used in Sri Lankan construction projects. Please use 1-5 Likert-scale for indicating your opinion on the extent of use.

1= Very low use

2= low use

3= Neutral

4= High use

5= Very high use

a) Risk Identification Techniques:	**1**	**2**	**3**	**4**	**5**
1. Brainstorming					
2. Check list					
3. Review of historical information					
4. Judgment based on experience					
5. Root cause identification					
6. Delphi technique					
7. SWOT analysis					
Specify any other techniques:					

b) Risk Analysis Techniques:	1	2	3	4	5
1. Probability and Impact model					
2. Analytical Hierarchy process					
3. Monte Carlo Simulation					
4. Judgment based on experience					
Specify any other techniques:					

c) Risk Response Techniques:	1	2	3	4	5
1. Risk avoidance					
2. Risk reduction					
3. Risk transfer					
4. Risk retention					
Specify any other techniques:					

d) Risk Monitoring techniques:	1	2	3	4	5
1. Risk Reassessment					
2. Milestone Tracking					
3. Corrective Actions					
4. Top 10 Tracking					
5. Status Meetings					
Specify any other techniques:					

QUESTIONNAIRE – PART 3

This section of the questionnaire is to identify the barriers to the adoption, usage, and implementation of risk management systems in Sri Lankan construction projects. The barriers were identified from past studies of similar nature in various countries. The respondents are requested to rate their opinions on these identified barriers using five points Likert- scale as follows:

1= Strongly disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly agree

Barriers	1	2	3	4	5
1. Poor-awareness of risk management systems					
2. Lack of experience					
3. Lack of coordination between stakeholders					
4. Lack of information					
5. Unavailability of risk management consultants					
6. Implementation cost					
7. Time constraints					
Specify any other barriers:					

QUESTIONNAIRE – PART 4

This section of the questionnaire is to identify the Critical Success Factors (CSFs) for implementing risk management systems in Sri Lankan construction projects. The CSFs were identified from past studies of similar nature in the various part of the

world. The respondents are requested to rate their opinions on these identified CSFs using a five points Likert- scale as follows:

1= Strongly disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly agree

Critical Success Factor (CSF)	**1**	**2**	**3**	**4**	**5**
CSF1: Support from managers for implementing risk management systems.					
CSF2: Awareness of risk management systems among stakeholders.					
CSF3: Request for **Implementation of Risk Management Systems** (**IRMS**) on projects by clients and end users.					
CSF4: Incorporating **IRMS** among the strategic objectives of organizations involved in projects.					
CSF5: Taking into account the effects of the business environment surrounding projects.					
CSF6: Attempting to deliver projects systematically on time and within project's budget.					
CSF7: Promoting teamwork and communication among the stakeholders.					
CSF8: Availability of specialist risk management consultants.					

CSF9: Including the costs within project's budgets for **IRMS**.					
CSF10: Inclusion of risk management systems in engineering education and training modules of construction practitioners.					
Specify any other CSFs:					

Annex-B

INVESTIGATION OF CRITICAL SUCCESS FACTORS (CSFs) FOR THE DEPLOYMENT OF CONSTRUCTION RISK MANAGEMENT PRACTICES IN SRI LANKA

M.Sc. in Construction Project Management

Department of Civil Engineering

University of Moratuwa

Dear Sir / Madam,

I take this juncture to thank you for your speedy response to the Questionnaire One of this study. You have stretched your hands to help this research by spending your valuable time from your tight schedules.

As it was informed in the Questionnaire One, I have prepared the Questionnaire Two with the same set of questions to be presented to the same panel of experts while providing the panel feedback from the questionnaire one. This questionnaire will be used for academic purpose only. It is designed as a tool for collecting primary data for the research. I assure that this information will be kept confidential and only the summarized results will be provided in the report and therefore no specific reference will be made to experts who take part in this survey.

It will be highly appreciated if you could spend a few minutes to complete this questionnaire and return it to me at your earliest.

Thank you.

Yours Faithfully,

A.L.M. Risath
M.Sc. Candidate
Mobile : 077-254-6898

Supervisor:

Dr. ChandanaSiriwardana
Senior Lecturer
Department of Civil Engineering
Faculty of Engineering
University of Moratuwa

QUESTIONNAIRE TWO

Name of the Respondent:

Instructions:

- The panel feedback from the **Questionnaire One** is provided below as the number of responses in the percentage of the total responses. The answer provided by you in the Questionnaire One has been shown by the grey colour box.
- You are kindly requested to let the box as it is if you still stand with the same answer or else please coulor a different box if you decide to change the previous answer.

PART 1: RISK MANAGEMENT PRACTICES

1= Very low use

2= low use

3= Neutral

4= High use

5= Very high use

Risk Identification Techniques:	**Number of response as a percentage of total responses**				
	1	**2**	**3**	**4**	**5**
1. Brainstorming	47%	13%	13%	20%	7%
2. Check list	7%	13%	60%	13%	7%
3. Review of historical information	13%	0%	20%	47%	20%
4. Judgment based on experience	0%	7%	27%	60%	7%
5. Root cause identification	0%	27%	60%	7%	7%
6. Delphi technique	73%	20%	0%	0%	7%
7. SWOT analysis	40%	33%	7%	20%	0%

Risk Analysis Techniques:	Number of response as a percentage of total responses				
	1	2	3	4	5
1. Probability and Impact model	60%	13%	13%	7%	7%
2. Analytical Hierarchy process	67%	20%	7%	0%	7%
3. Monte Carlo Simulation	67%	27%	0%	7%	0%
4. Judgment based on experience	20%	0%	13%	20%	47%

Risk Response Techniques:	Number of response as a percentage of total responses				
	1	2	3	4	5
1. Risk avoidance	0%	13%	20%	67%	0%
2. Risk reduction	20%	13%	20%	40%	7%
3. Risk transfer	7%	13%	20%	53%	7%
4. Risk retention	67%	13%	13%	7%	0%

Risk Monitoring techniques:	Number of response as a percentage of total responses				
	1	2	3	4	5
1. Risk Reassessment	53%	13%	20%	7%	7%
2. Milestone Tracking	47%	13%	13%	20%	7%
3. Corrective Actions	0%	27%	20%	53%	0%
4. Top 10 Tracking	27%	13%	47%	0%	13%
5. Status Meetings	0%	20%	7%	27%	47%

PART 2: BARRIERS TO THE ADOPTION, USAGE, AND IMPLEMENTATION OF RISK MANAGEMENT SYSTEMS

1= Strongly disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly agree

Barriers	Number of response as a percentage of total responses				
	1	**2**	**3**	**4**	**5**
1. Poor-awareness of risk management systems	0%	7%	13%	20%	60%
2. Lack of experience	0%	13%	13%	60%	13%
3. Lack of coordination between stakeholders	0%	13%	7%	73%	7%
4. Lack of information	7%	7%	13%	27%	47%
5. Unavailability of risk management consultants	0%	7%	20%	20%	53%
6. Implementation cost	0%	0%	7%	33%	60%
7. Time constraints	0%	7%	13%	53%	27%

PART 3: CRITICAL SUCCESS FACTORS (CSFS) FOR IMPLEMENTING RISK MANAGEMENT SYSTEMS

1= Strongly disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly agree

Critical Success Factor (CSF)	Number of response as the percentage of total responses				
	1	**2**	**3**	**4**	**5**
CSF1: Support from managers for implementing risk management systems.	0%	13%	7%	60%	20%
CSF2: Awareness of risk management systems among stakeholders.	0%	13%	13%	13%	60%
CSF3: Request for **Implementation of Risk Management Systems** (**IRMS**) on projects by clients and end users.	0%	7%	27%	13%	53%
CSF4: Incorporating **IRMS** among the strategic objectives of organizations involved in projects.	0%	20%	20%	47%	13%
CSF5: Taking into account the effects of the business environment surrounding projects.	7%	13%	47%	20%	13%
CSF6: Attempting to deliver projects systematically on time and within project's budget.	7%	7%	20%	20%	47%
CSF7: Promoting team work and communication among the stakeholders.	0%	13%	20%	53%	13%
CSF8: Availability of specialist risk management consultants.	7%	13%	47%	13%	20%
CSF9: Including the costs within project's budgets for **IRMS**.	7%	0%	13%	67%	13%
CSF10: Inclusion of risk management systems in engineering education and training modules of construction practitioners.	13%	0%	7%	27%	53%

Annex-C

INVESTIGATION OF CRITICAL SUCCESS FACTORS (CSFs) FOR THE DEPLOYMENT OF CONSTRUCTION RISK MANAGEMENT PRACTICES IN SRI LANKA

M.Sc. in Construction Project Management

Department of Civil Engineering

University of Moratuwa

Dear Sir / Madam,

I take this juncture to thank you for your speedy responses in the previous rounds. You have stretched your hands to help this research by spending your valuable time from your tight schedules. This questionnaire will be used for academic purpose only. It is designed as a tool for collecting primary data for the research. I assure that this information will be kept confidential and only the summarized results will be provided in the report and therefore no specific reference will be made to experts who take part in this survey.

It will be highly appreciated if you could spend a few minutes to complete this questionnaire and return it to me at your earliest.

Thank you.

Yours Faithfully,

ALM. Risath

M.Sc. Candidate

Mobile : 077-254-6898

Supervisor:

Dr. ChandanaSiriwardana

Senior Lecturer

Department of Civil Engineering

Faculty of Engineering

University of Moratuwa

QUESTIONNAIRE THREE

Name of the Respondent:

Instructions:

- The following top five **Critical Success Factors (CSF1-CSF5)** for implementing risk management systems in Sri Lankan construction projects were identified from the results obtained in the previous round using Relative Important Index (RII).

  CSF1*: Request for Implementation of Risk Management Systems (IRMS) on projects by clients and end users.*

  CSF2*: Inclusion of risk management systems in engineering education and training modules of construction practitioners.*

  CSF3*: Awareness of risk management systems among stakeholders.*

  CSF4*: Attempting to deliver projects systematically on time and within project's budget.*

  CSF5*: Including the costs within project's budgets for IRMS.*

- **The Analytical Hierarchy Process (AHP)** will be used in this round of the survey to provide the ranking for the identified CSFs. The CSFs will be compared as a pair. The following numeric rating method will be used to rank the pairs.

AHP Scale of Importance for pair comparison (a_{ij})	Numeric Rating
Extreme Importance	9
Very strong to Extreme	8
Very Strong Importance	7
Strongly to Very Strong	6
Strong Importance	5
Moderately to Strong	4
Moderate Importance	3
Equally to Moderate	2
Equal Importance	1

(Item i) 9-8-7-6-5-4-3-2-1-2-3-4-5-6-7-8-9 (Item j)

- You are kindly requested to underline your answers in the following tables.

CSF1 Vs. CSF2, CSF3, CSF4 and CSF5

CSF1	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF2**
CSF1	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF3**
CSF1	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF4**
CSF1	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF5**

CSF2 Vs. CSF3, CSF4 and CSF5

CSF2	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF3**
CSF2	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF4**
CSF2	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF5**

CSF3 Vs. CSF4 and CSF5

CSF3	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF4**
CSF3	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**CSF5**

CSF4 Vs. CSF5

CSF4	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	**CSF5**

Annex-D

AHP Calculations

AHP Analytic Hierarchy Process

bpmsg.com Multiple Input Summary Sheet

15 = k number of participants

5 = n number of criteria

Consolidated = Weighted geometric mean off participants

C **Consolidated**

	1	2	3	4	5	6	7	8	9	10
1		3.33	3.33	1.94	0.99	0	0	0	0	0
2	0.3		0.99	0.81	0.32	0	0	0	0	0
3	0.3	1.01		0.56	0.23	0	0	0	0	0
4	0.52	1.24	1.79		0.68	0	0	0	0	0
5	1.01	3.14	4.39	1.46		0	0	0	0	0
6	0	0	0	0	0		0	0	0	0
7	0	0	0	0	0	0		0	0	0
8	0	0	0	0	0	0	0		0	0
9	0	0	0	0	0	0	0	0		0
10	0	0	0	0	0	0	0	0	0	

1 Participant 1 1 1/0/1900

	1	2	3	4	5	6	7	8	9	10
1	1	8	3	1/4	1	0	0	0	0	0
2	1/8	1	1/8	1/9	1/7	0	0	0	0	0
3	1/3	8	1	1/9	1	0	0	0	0	0
4	4	9	9	1	6	0	0	0	0	0
5	1	7	1	1/6	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

2 Participant 2 1 1/0/1900

	1	2	3	4	5	6	7	8	9	10
1	1	5	8	8	1	0	0	0	0	0
2	1/5	1	2	1	1/5	0	0	0	0	0
3	1/8	1/2	1	2	1/7	0	0	0	0	0
4	1/8	1	1/2	1	1/5	0	0	0	0	0
5	1	5	7	5	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

3 Participant 3 1 1/0/1900

	1	2	3	4	5	6	7	8	9	10
1	1	4	9	8	2	0	0	0	0	0
2	1/4	1	2	4	1/4	0	0	0	0	0
3	1/9	1/2	1	4	1/9	0	0	0	0	0
4	1/8	1/4	1/4	1	1/6	0	0	0	0	0
5	1/2	4	9	6	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

4	Participant 4						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	4	4	3	3	0	0	0	0	0
2	1/4	1	3	2	1/2	0	0	0	0	0
3	1/4	1/3	1	1/2	1/4	0	0	0	0	0
4	1/3	1/2	2	1	2	0	0	0	0	0
5	1/3	2	4	1/2	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

5	Participant 5						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	4	1	1/2	1/2	0	0	0	0	0
2	1/4	1	1/6	1/6	1/9	0	0	0	0	0
3	1	6	1	1/5	1/9	0	0	0	0	0
4	2	6	5	1	1	0	0	0	0	0
5	2	9	9	1	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

6	Participant 6						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	7	6	1	1/2	0	0	0	0	0
2	1/7	1	1/4	1/5	1/5	0	0	0	0	0
3	1/6	4	1	1/4	1/2	0	0	0	0	0
4	1	5	4	1	2	0	0	0	0	0
5	2	5	2	1/2	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

7	Participant 7						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	8	2	3	1/2	0	0	0	0	0
2	1/8	1	1/3	1/7	1/8	0	0	0	0	0
3	1/2	3	1	1/6	1/6	0	0	0	0	0
4	1/3	7	6	1	1	0	0	0	0	0
5	2	8	6	1	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

8	Participant 8						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	8	7	7	6	0	0	0	0	0
2	1/8	1	2	2	1	0	0	0	0	0
3	1/7	1/2	1	1/5	1/5	0	0	0	0	0
4	1/7	1/2	5	1	1	0	0	0	0	0
5	1/6	1	5	1	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

9	Participant 9						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	3	8	4	3	0	0	0	0	0
2	1/3	1	3	2	3	0	0	0	0	0
3	1/8	1/3	1	1/7	1/7	0	0	0	0	0
4	1/4	1/2	7	1	2	0	0	0	0	0
5	1/3	1/3	7	1/2	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

10	Participant 10						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	4	2	1/3	1/3	0	0	0	0	0
2	1/4	1	1/5	1/5	1/8	0	0	0	0	0
3	1/2	5	1	1/6	1/9	0	0	0	0	0
4	3	5	6	1	1/3	0	0	0	0	0
5	3	8	9	3	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

11	Participant 11						1			1/0/1900
	1	2	3	4	5	6	7	8	9	10
1	1	1	2	1/4	1/5	0	0	0	0	0
2	1	1	1	1/4	1/9	0	0	0	0	0
3	1/2	1	1	1/8	1/8	0	0	0	0	0
4	4	4	8	1	2	0	0	0	0	0
5	5	9	8	1/2	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

12	Participant 12						1		1/0/1900	
	1	2	3	4	5	6	7	8	9	10
1	1	5	7	7	2	0	0	0	0	0
2	1/5	1	3	3	1	0	0	0	0	0
3	1/7	1/3	1	3	1/7	0	0	0	0	0
4	1/7	1/3	1/3	1	1/9	0	0	0	0	0
5	1/2	1	7	9	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

13	Participant 13						1		1/0/1900	
	1	2	3	4	5	6	7	8	9	10
1	1	1	3	1/2	1/2	0	0	0	0	0
2	1	1	4	1	1/2	0	0	0	0	0
3	1/3	1/4	1	1	1/6	0	0	0	0	0
4	2	1	1	1	1/6	0	0	0	0	0
5	2	2	6	6	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

14	Participant 14						1		1/0/1900	
	1	2	3	4	5	6	7	8	9	10
1	1	1/5	1/5	5	1	0	0	0	0	0
2	5	1	1	8	1	0	0	0	0	0
3	5	1	1	8	6	0	0	0	0	0
4	1/5	1/8	1/8	1	1	0	0	0	0	0
5	1	1	1/6	1	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1

15	Participant 15						1		1/0/1900	
	1	2	3	4	5	6	7	8	9	10
1	1	5	7	7	1	0	0	0	0	0
2	1/5	1	3	2	1/6	0	0	0	0	0
3	1/7	1/3	1	3	1/9	0	0	0	0	0
4	1/7	1/2	1/3	1	1/6	0	0	0	0	0
5	1	6	9	6	1	0	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0
7	0	0	0	0	0	0	1	0	0	0
8	0	0	0	0	0	0	0	1	0	0
9	0	0	0	0	0	0	0	0	1	0
10	0	0	0	0	0	0	0	0	0	1