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## APPENDIX:

### Appendix 1: show the Research questionnaire

<b><u>A Study Factors Endemic to the IT project Life cycle Management in Sri Lanka</u></b>						
Personal Information						
(1) Name: -----						
(2) Gender: ( ) Male ( ) Female						
(3) Select used Software lifecycle :						
SDLC	Waterfall	Iterative	Spiral	Prototype	V Model	General/Other
<i>Please select the best response to each question based on your experience.</i>						
1. What is the <b>level of usage</b> of “requirement tracking methods” in your organization?						
Very high	High	Moderate	Low	Very low		
2. Higher level of domain knowledge is important to manage the software project life cycle?						
Strongly Agree	Agree	Neutral	Disagree	Strongly disagree		
3. What is the <b>level of involvement of</b> expertise in the problem domain in your project’s life cycle?						
Very high	High	Moderate	Low	Very low		
4. How do you rate the <b>level of usage of reusable</b> components in the project life cycle?						
Very high	High	Moderate	Low	Very low		
5. Do you think user involvement in all the SDLC Phases is important to the Project life cycle?						
Strongly Agree	Agree	Neutral	Disagree	Strongly disagree		
6. Do you think <b>Project complexity</b> is an important factor to select the project life cycle?						
Strongly Agree	Agree	Neutral	Disagree	Strongly disagree		

7. What is the **level of Diversity of the project** that you consider when managing project life cycle?

Very high	High	Moderate	Low	Very low

8. **“What is the level of cooperation extended by the team member”** when you consider managing a project using the project life cycle method?

Very high	High	Moderate	Low	Very low

9. What is the **“level of willingness to use different techniques”** when you consider managing using the project life cycle method?

Very high	High	Moderate	Low	Very low

10. What is the **level of manageability** you have experienced by outsourcing your project when following the project life cycle?

Very high	High	Moderate	Low	Very low

11. What is the **level of manageability** you have experienced by virtual teams when following the project life cycle?

Very high	High	Moderate	Low	Very low

12. When you're managing the project life cycle what is the **level of resistance to change** the organization culture?

Very high	High	Moderate	Low	Very low

13. What is the **level of financial stability observed when** implementing the project life cycle?

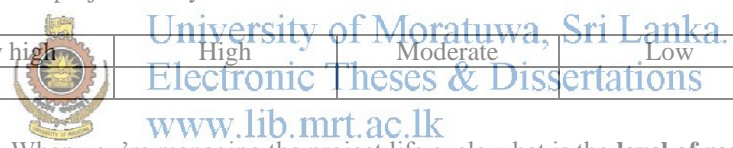
Very high	High	Moderate	Low	Very low

14. What is the **level of consideration** of **“division of work and Job specialization”** when you manage a project using the project life cycle method?

Very high	High	Moderate	Low	Very low

15. What is the **level of usage** of **“project management best practices”** in your organization?

Very high	High	Moderate	Low	Very low



16. What is the **level of usage** of “Process and standards” in your organization?

Very high	High	Moderate	Low	Very low

17. When managing the “**Project client**”,

<b>Level of Expectation from client</b>		<b>Very high</b>	<b>High</b>	<b>Moderate</b>	<b>Low</b>	<b>Very low</b>
(17.1)	Level of expected Quality					
(17.2)	Level of domain knowledge					
(17.3)	Knowledge of project scope					
(17.4)	Level of knowledge in technology					

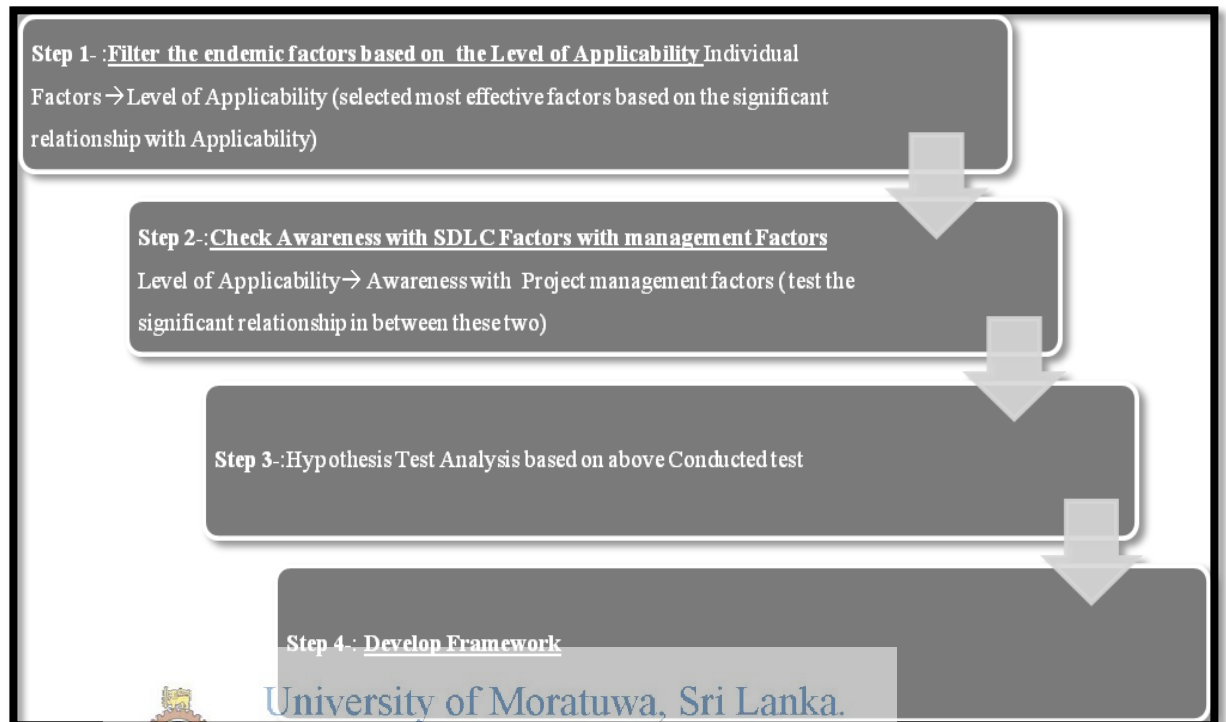
18. How do you measure the **level of awareness** of Management with SDLC with regard to the following factors?

<b>Awareness of Management with SDLC</b>		<b>Very high</b>	<b>High</b>	<b>Moderate</b>	<b>Low</b>	<b>Very low</b>
(18.1)	Reliability of schedule management					
(18.2)	Level of managing the Project task time					
(18.3)	Identification of task and cost					
(18.4)	Reliability of preparing the cost estimation					
(18.5)	Level of managing scope creep					
(18.6)	Managing the change request					
(18.7)	Identifying the customer expected scope					
(18.8)	Identify the level of quality expectation					
(18.9)	Manageability of SDLC phases and quality of project.					

Thank you participation in the survey.

## Appendix: 2: Data Analysis Map

Structure of the Map:



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Step 1- :Individual Factors → Level Of Applicability (selected most effective factors based on the significant relationship with Applicability)

### Factors co relationship test with intermediate variable

Variation of Life cycle model → Applicability of variation factors of Life cycle model	Pearson Co relation test
Infrastructure of IT project → Applicability of Consideration of Infrastructure of IT Project	Pearson Co relation test
Context of Organization → Applicability of organization Context	Pearson Co relation test
Customer Factors → Applicability of Satisfaction of customer needs	Pearson Co relation test

Step 2:-Level of Applicability → Awareness with Project management factors

	Cost	Time	Scope	Quality
Applicability of variation of Life cycle model	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis
Applicability of Consideration of Infrastructure of IT Project	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis
Applicability of organization Context	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis
Applicability of Satisfaction of customer needs	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis	Pearson co-relation Analysis



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Step 3:- Hypothesis Test Analysis based on above conducted test  
 Hypothesis 1: There is a relationship between effectiveness of various life cycle models over project life cycle management in Sri Lanka.

Hypothesis Test Analysis based on above conducted test analysis	Result
<p>H10: Life cycle model variation factor does not have an effect on project life cycle management in Sri Lanka.</p> <p>H11: Life cycle model variation factor effect on project life cycle management in Sri Lanka.</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;">                     (IMV-1) variation Factor of Life cycle model ( Based on Above test Selected Factors Value)                 </div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(1) Time management in SDLC</div> </div> <div style="display: flex; align-items: center;"> <input type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(2) Cost management in SDLC</div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(3) Scope management in SDLC</div> </div> <div style="display: flex; align-items: center;"> <input type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(4) Scope management in SDLC</div> </div> </div> </div>	Accepted/ not / Partially Accepted.



**Step 3:-Hypothesis Test Analysis based on above Conducted test**  
**Hypothesis 2:There is a relationship between considerations of**  
**infrastructure of IT project over the project life cycle management in Sri**  
**Lanka.**

Hypothesis Test Analysis based on above conducted test analysis	Result
<p>H2<sub>0</sub>: Infrastructure of IT project factors does not have an effect on the project life cycle management in Sri Lanka</p> <p>H2<sub>1</sub>: Infrastructure of IT project factors has an effect on the project life cycle management in Sri Lanka</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;"> <p>(IMV-2)</p> <p>Infrastructure of IT Project ( Based on Above test Selected Factors Value)</p> </div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(1) Time management in SDLC</p> </div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(2) Cost management in SDLC</p> </div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(3) Scope management in SDLC</p> </div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(4) Scope management in SDLC</p> </div> </div> </div> </div>	Accepted/ not / Partially Accepted.



**Step 3:-Hypothesis Test Analysis based on above Conducted test**  
**Hypothesis 3:There is a relationship between organizational context**  
**and project life cycle management in Sri Lanka.**

Hypothesis Test Analysis based on above conducted test analysis	Result
<p>H3<sub>0</sub>: Organizational context does not have an effect on the project life cycle management in Sri Lanka</p> <p>H3<sub>1</sub>: Organizational context has an effect on the project life cycle management in Sri Lanka</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;"> <p>(IMV-3)</p> <p>Applicability of organization Context ( Based on Above test Selected Factors Value)</p> </div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(1) Time management in SDLC</p> </div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(2) Cost management in SDLC</p> </div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(3) Scope management in SDLC</p> </div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>(4) Scope management in SDLC</p> </div> </div> </div> </div>	Accepted/ not / Partially Accepted.

**Step 3:-Hypothesis Test Analysis based on above Conducted test**  
**Hypothesis 4:There is a relationship between degree of customer satisfaction and project life cycle management in Sri Lanka.**

Hypothesis Test Analysis based on above conducted test analysis	Result
<p>H4<sub>0</sub>: Degree of customer satisfaction does not have an effect on the project life cycle management in Sri Lanka                      H4<sub>1</sub>: Degree of customer satisfaction has an effect on the project life cycle management in Sri Lanka</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 20px;"> <p>(IMV-4)                              Applicability of Satisfaction of customer needs( Based on Above test Selected Factors Value)</p> </div> <div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(1) Time management in SDLC</div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(2) Cost management in SDLC</div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(3) Scope management in SDLC</div> </div> <div style="display: flex; align-items: center;"> <input checked="" type="checkbox"/> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">(4) Scope management in SDLC</div> </div> </div> </div>	Accepted/not / Partially Accepted.



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Step 4: Framework for the managing SDLC based on Endemic Factors

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List of Endemic Factors in Sri Lankan Software Industry	Cost management	Scope management	Time Management	Quality management
<b>variation of Life cycle model</b>				
Factor 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<b>Infrastructure of IT Project</b>				
Factor 1				
<b>organization Context</b>				
Factor 1				
<b>Satisfaction of customer needs</b>				
Factor 1				