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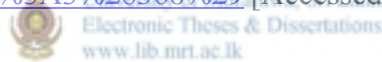
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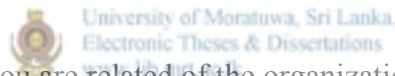
ANNEXURE - A:

QUESTIONNAIRE ON MANUFACTURING EXCELLENCE PROGRAMME

I am a post-graduate student of University of Moratuwa and reading for M.Sc.in Operational Research. I wish to conduct a case study research on “Modeling of Effective Maintenance Function for Manufacturing Excellence Programme” as a partial requirement of my post-graduate degree. Being the one and only company in Sri Lanka that has implemented Manufacturing Excellence programme as a productivity improvement strategy, I selected the department of Production of your esteemed company to collect data for my research. I would gratefully appreciate your support by spending few minutes to fill up this questionnaire. And I assure you that the information collected will be exclusively used for academic purpose, and kept strictly confidential.

Part I

Please mark your response with that you think is the most appropriate for each statement.



1. What is the level that you are related of the organizational hierarchy?
i) Top Level ii) Middle Level iii) Lower Level
 2. What is your age limit (in years)?
i) 20 - 35 ii) 36 - 50 iii) Above 50
 3. What is your working experience (in years) in the department of production:
i) 0 - 1 ii) 2 - 3 iii) More than 3
 4. What is your personal satisfaction on Manufacturing Excellence programme:
i) Satisfied ii) Neutral iii) Unsatisfied
-

Part II

Survey Measures

Please mark your response with that you think is the most appropriate for each statement.

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1. Performance of Manufacturing Excellence Programme					
a. I am satisfied with my present workload.	1	2	3	4	5
b. I can see an increase in the usefulness of resources within the department.	1	2	3	4	5
c. I can easily adapt to any work assigned to me.	1	2	3	4	5
d. I lose only less amount of time for my work due to setting up machines and repairs.	1	2	3	4	5
e. I can see an improved quality of the production.	1	2	3	4	5
2. Communication and Coordination					
a. I can share the views and set my future work at the meeting with the steering committee of the department.	1	2	3	4	5
b. I can communicate with others in many ways.	1	2	3	4	5
c. I receive orders only from my in-charge.	1	2	3	4	5
d. I have opportunity to use new technology in communication.	1	2	3	4	5
e. I can easily understand the methods of communication and the language used.	1	2	3	4	5
3. Leadership					
a. I can work easily with my team leader.	1	2	3	4	5
b. I can finish my work early because of the encouragement of my team leader.	1	2	3	4	5
c. I can speak freely in the work because of the openness of my team leader.	1	2	3	4	5
d. I am not afraid to do any work at any time because my team leader has the willingness of accepting risks.	1	2	3	4	5
e. I can get the attention of my team leader whenever I need.	1	2	3	4	5

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
4. Extent of Training					
a. I have found the training useful, challenging.	1	2	3	4	5
b. I can get a well-structured and organized training.	1	2	3	4	5
c. I can improve my knowledge through the training provided me.	1	2	3	4	5
d. I can further enhance my skills related to the work through the training.	1	2	3	4	5
e. I can work better after the training.	1	2	3	4	5
f. I am confident that I can contribute better to enhance productivity and efficiency due to the training.	1	2	3	4	5
5. Team Working					
a. I have the freedom to plan and manage my day-to-day activities and duties under less or no supervision.	1	2	3	4	5
b. I am not alone when I am facing a problem, because my team members are behind me to help, they don't give up me.	1	2	3	4	5
c. I am willing to be receptive to the ideas and objections of the other team members.	1	2	3	4	5
d. I assure commitment on my assigned responsibilities.	1	2	3	4	5
e. I can understand the value of each other as an individual.	1	2	3	4	5
6. Employee Involvement					
a. I have enough capability of identifying any problem arisen in the work floor.	1	2	3	4	5
b. I can manage any problem in the work floor by finding a fair solution for it as soon as possible.	1	2	3	4	5
c. I have the opportunity to be rewarded for my work.	1	2	3	4	5
7. Equipment Failure Responsiveness					
a. I can always work within the designed limits of the machines.	1	2	3	4	5
b. I have the sufficient knowledge to properly use the equipment available in the work floor.	1	2	3	4	5
c. I have to work with very old machines.	1	2	3	4	5
d. I have to face often power failures because the production line gets late to fit with another power source.	1	2	3	4	5

ANNEXURE - B:

SUMMARY OF RESPONSES

Respondent	PART I				Respondent	PART I			
	1	2	3	4		1	2	3	4
R1	1	2	2	1	R26	3	2	2	1
R2	1	2	2	1	R27	3	3	2	3
R3	1	1	2	1	R28	3	2	2	1
R4	1	2	2	1	R29	3	2	2	2
R5	2	2	3	1	R30	3	2	2	2
R6	2	1	3	1	R31	3	2	2	1
R7	2	1	3	1	R32	3	1	3	1
R8	3	2	3	1	R33	3	2	3	2
R9	3	2	3	2	R34	3	1	3	2
R10	2	2	3	1	R35	3	2	3	2
R11	3	1	3	1	R36	3	2	3	1
R12	1	1	3	1	R37	3	1	3	1
R13	3	2	3	1	R38	1	2	3	1
R14	2	3	3	1	R39	1	2	3	1
R15	2	2	3	1	R40	1	3	1	2
R16	3	2	1	1	R41	2	2	1	1
R17	1	2	3	2	R42	1	2	2	1
R18	1	2	3	2	R43	2	2	2	2
R19	1	1	3	2	R44	2	1	2	1
R20	1	1	3	1	R45	2	1	2	1
R21	2	2	2	1	R46	3	1	2	2
R22	2	2	2	1	R47	3	2	3	3
R23	2	1	3	1	R48	3	1	3	1
R24	3	2	2	2	R49	3	1	3	2
R25	3	2	1	1	R50	2	2	3	2

PART II																		
Respondent	Performance of Manufacturing Excellence Programme						Communication and Coordination						Leadership					
	a	b	c	d	e	Avg	a	b	c	d	e	Avg	a	b	c	d	e	Avg
R1	2	3	4	3	3	3.0	4	5	5	4	4	4.4	4	5	4	3	4	4.0
R2	4	4	5	4	4	4.2	4	5	5	4	5	4.6	4	5	5	3	4	4.2
R3	4	4	5	4	4	4.2	5	5	5	4	4	4.6	4	5	5	3	4	4.2
R4	4	4	5	4	4	4.2	5	5	5	4	5	4.8	4	5	5	4	4	4.4
R5	5	4	5	4	4	4.4	5	5	5	4	4	4.6	3	5	5	4	4	4.2
R6	5	4	5	4	4	4.4	5	5	5	3	5	4.6	3	4	4	4	4	3.8
R7	4	4	4	3	4	3.8	5	5	4	4	5	4.6	3	4	4	4	3	3.6
R8	5	3	4	3	4	3.8	4	5	5	5	5	4.8	5	5	4	5	5	4.8
R9	5	3	4	3	3	3.6	4	4	5	2	4	3.8	5	5	3	4	5	4.4
R10	4	3	4	3	5	3.8	3	5	5	3	4	4.0	5	4	5	5	4	4.6
R11	4	3	4	2	4	3.4	5	5	4	3	4	4.2	4	4	5	4	4	4.2
R12	4	4	4	3	3	3.6	5	5	4	3	4	4.2	5	4	5	4	4	4.4
R13	3	3	5	3	3	3.4	5	5	4	3	4	4.2	3	4	4	5	2	3.6
R14	4	4	5	5	3	4.2	5	5	5	4	4	4.6	5	5	5	4	5	4.8
R15	4	4	2	4	3	3.4	5	4	3	4	4	4.0	4	4	4	5	5	4.4
R16	5	4	4	4	2	3.8	4	4	5	4	3	4.0	3	5	5	5	4	4.4
R17	4	4	4	4	2	3.6	3	4	3	5	5	4.0	5	5	4	5	5	4.8
R18	4	4	4	4	5	4.2	3	5	3	5	5	4.2	4	4	5	4	5	4.4
R19	3	5	4	4	5	4.2	3	5	5	5	5	4.6	4	4	4	4	5	4.2
R20	5	5	4	4	5	4.6	5	5	5	5	5	5.0	5	3	5	4	5	4.4
R21	4	3	4	2	3	3.2	4	5	5	5	4	4.6	5	4	4	4	3	4.0
R22	5	4	5	4	4	4.4	4	5	5	5	5	4.8	5	4	5	5	3	4.4
R23	5	3	3	4	5	4.0	5	4	4	3	4	4.0	5	5	4	5	4	4.6
R24	5	3	5	4	4	4.2	3	4	4	3	5	3.8	5	5	4	5	4	4.6
R25	5	4	5	4	5	4.6	4	3	4	4	4	3.8	5	5	4	5	4	4.6
R26	4	4	5	5	4	4.4	3	5	4	4	5	4.2	4	5	4	4	4	4.2
R27	4	4	4	5	5	4.4	4	5	4	4	4	4.2	4	4	4	4	4	4.0
R28	4	4	4	5	4	4.2	5	5	4	4	5	4.6	4	5	4	4	4	4.2
R29	4	4	4	5	5	4.4	3	4	4	4	4	3.8	4	4	4	5	4	4.2
R30	3	4	4	3	4	3.6	4	5	4	4	4	4.2	4	5	4	5	2	4.0
R31	5	2	4	3	5	3.8	5	4	5	4	5	4.6	4	5	5	5	5	4.8
R32	4	5	4	4	3	4.0	4	5	3	4	5	4.2	5	5	3	5	2	4.0
R33	4	3	2	3	3	3.0	3	4	5	4	4	4.0	5	5	3	4	2	3.8
R34	4	5	5	5	5	4.8	2	5	5	5	4	4.2	5	4	5	4	5	4.6
R35	4	4	5	5	5	4.6	5	4	2	5	5	4.2	5	4	5	4	2	4.0
R36	4	5	5	5	4	4.6	4	5	5	5	5	4.8	3	4	5	4	5	4.2
R37	4	3	5	5	4	4.2	4	5	5	4	2	4.0	4	5	4	4	5	4.4
R38	4	3	5	5	4	4.2	4	5	5	4	5	4.6	4	4	5	4	5	4.4
R39	4	3	5	4	2	3.6	4	5	5	4	4	4.4	5	5	4	5	4	4.6
R40	3	3	5	4	5	4.0	4	5	5	5	5	4.8	4	4	4	5	4	4.2
R41	3	3	4	4	5	3.8	5	5	5	4	5	4.8	5	5	4	3	4	4.2
R42	5	4	5	4	5	4.6	5	5	5	4	5	4.8	4	4	5	5	3	4.2
R43	5	4	4	4	5	4.4	4	4	5	4	5	4.4	5	3	5	5	3	4.2
R44	5	4	5	4	4	4.4	5	4	5	4	4	4.4	4	5	5	5	4	4.6
R45	4	2	4	4	4	3.6	4	4	5	5	4	4.4	5	5	4	2	5	4.2
R46	5	4	5	5	4	4.6	5	4	5	5	4	4.6	4	4	4	4	2	3.6
R47	4	4	2	5	4	3.8	4	4	5	2	4	3.8	5	4	4	2	5	4.0
R48	5	4	4	5	4	4.4	5	4	5	5	4	4.6	4	4	4	4	5	4.2
R49	4	4	4	5	4	4.2	4	5	5	5	4	4.6	5	4	4	4	5	4.4
R50	5	5	4	5	4	4.6	5	5	5	5	4	4.8	5	4	4	4	2	3.8

Respondent	Extent of Training							Team Working					Employee Involvement				
	a	b	c	d	e	f	Avg	a	b	c	d	e	Avg	a	b	c	Avg
R1	4	3	3	3	2	3	3.0	4	5	5	5	5	4.8	4	3	3	3.3
R2	5	4	5	4	5	4	4.5	4	5	4	5	5	4.6	5	4	5	4.7
R3	5	4	5	4	4	4	4.3	4	5	5	5	5	4.8	5	4	5	4.7
R4	5	4	5	4	5	4	4.5	4	5	5	5	5	4.8	5	5	4	4.7
R5	5	4	5	5	5	4	4.7	3	4	5	5	5	4.4	4	4	4	4.0
R6	4	5	5	5	5	5	4.8	3	4	4	4	5	4.0	4	5	4	4.3
R7	4	4	4	4	3	3	3.7	3	5	4	4	4	4.0	3	3	4	3.3
R8	4	4	3	3	2	4	3.3	4	4	4	5	4	4.2	4	4	4	4.0
R9	5	4	4	5	4	3	4.2	4	4	4	5	5	4.4	4	3	4	3.7
R10	4	4	3	3	4	4	3.7	4	4	4	5	5	4.4	3	4	3	3.3
R11	3	4	4	4	2	5	3.7	5	5	5	4	4	4.6	4	4	4	4.0
R12	4	5	4	4	4	4	4.2	5	4	5	5	4	4.6	4	3	4	3.7
R13	3	3	4	4	3	4	3.5	4	5	5	4	4	4.4	4	4	3	3.7
R14	4	5	4	4	5	4	4.3	5	4	5	4	5	4.6	5	5	4	4.7
R15	4	5	4	4	5	5	4.5	4	5	3	5	4	4.2	5	5	4	4.7
R16	3	3	4	4	3	3	3.3	5	4	3	5	5	4.4	4	4	4	4.0
R17	4	4	3	4	4	4	3.8	4	5	4	4	4	4.2	3	3	3	3.0
R18	5	4	4	5	3	5	4.3	5	4	4	4	4	4.2	4	5	5	4.7
R19	5	4	5	5	4	5	4.7	5	5	4	4	4	4.4	4	5	5	4.7
R20	5	5	5	5	4	2	4.3	5	5	4	4	4	4.4	4	4	5	4.3
R21	5	4	4	4	4	3	4.0	4	4	4	5	5	4.4	4	3	3	3.3
R22	4	3	4	4	5	3	3.8	4	4	5	5	5	4.6	4	4	5	4.3
R23	5	4	4	4	4	3	4.0	4	4	4	5	4	4.2	5	5	4	4.7
R24	4	4	5	4	5	3	4.2	3	4	5	4	4	4.0	5	5	5	5.0
R25	5	4	5	5	4	4	4.5	5	5	4	4	4	4.4	5	4	4	4.3
R26	4	5	5	5	5	4	4.7	5	5	5	4	4	4.6	4	5	5	4.7
R27	4	4	4	4	4	4	4.0	5	5	4	4	4	4.4	4	5	4	4.3
R28	4	5	4	4	5	4	4.3	5	5	5	5	5	5.0	5	5	5	5.0
R29	5	5	4	4	4	5	4.5	5	4	5	5	5	4.8	4	5	4	4.3
R30	5	5	4	4	5	5	4.7	5	4	5	4	5	4.6	5	5	4	4.7
R31	3	3	4	3	3	4	3.3	4	4	5	5	5	4.6	4	4	3	3.7
R32	5	5	5	5	5	3	4.7	4	5	4	4	5	4.4	4	5	4	4.3
R33	4	4	3	4	4	4	3.8	4	5	4	5	5	4.6	4	3	3	3.3
R34	5	4	5	5	5	4	4.7	4	5	4	4	5	4.4	4	5	4	4.3
R35	4	4	5	5	5	4	4.5	4	5	4	5	5	4.6	5	4	4	4.3
R36	4	5	5	5	5	4	4.7	4	5	3	4	4	4.0	4	4	3	3.7
R37	5	5	4	3	5	4	4.3	4	5	5	4	5	4.6	5	4	5	4.7
R38	5	4	4	4	5	5	4.5	3	4	4	4	4	3.8	4	4	5	4.3
R39	5	5	3	4	4	5	4.3	5	3	4	4	5	4.2	5	4	5	4.7
R40	4	4	4	4	4	5	4.2	4	4	4	5	5	4.4	5	5	5	5.0
R41	4	5	4	4	4	5	4.3	2	4	4	4	5	3.8	5	5	5	5.0
R42	4	4	4	4	4	5	4.2	5	4	4	5	5	4.6	4	5	2	3.7
R43	4	5	5	4	5	2	4.2	5	4	4	4	5	4.4	4	5	5	4.7
R44	4	4	5	5	3	4	4.2	4	4	5	4	5	4.4	4	4	4	4.0
R45	3	4	3	4	4	3	3.5	4	3	5	5	4	4.2	4	4	3	3.7
R46	5	4	5	4	5	4	4.5	4	4	5	4	5	4.4	5	4	4	4.3
R47	4	4	4	4	4	3	3.8	4	5	4	5	5	4.6	4	4	3	3.7
R48	5	4	5	4	2	4	4.0	4	5	5	5	4	4.6	5	4	4	4.3
R49	5	5	5	5	5	5	5.0	4	5	4	5	5	4.6	4	5	5	4.7
R50	5	3	5	4	3	4	4.0	3	5	5	4	4	4.2	4	4	5	4.3

Respondent	Equipment Failure Responsiveness				Avg
	a	b	c	d	
R1	3	5	3	3	3.5
R2	4	5	3	5	4.3
R3	4	5	4	5	4.5
R4	4	5	4	5	4.5
R5	5	5	4	4	4.5
R6	5	5	4	4	4.5
R7	3	4	4	4	3.8
R8	3	4	3	3	3.3
R9	2	4	4	4	3.5
R10	4	4	4	3	3.8
R11	3	3	3	3	3.0
R12	4	3	4	3	3.5
R13	4	4	3	4	3.8
R14	4	4	4	5	4.3
R15	5	4	5	4	4.5
R16	2	4	5	4	3.8
R17	3	3	3	4	3.3
R18	4	5	4	4	4.3
R19	4	5	3	5	4.3
R20	5	5	5	4	4.8
R21	4	4	3	3	3.5
R22	5	5	5	5	5.0
R23	5	5	5	4	4.8
R24	4	4	5	5	4.5
R25	4	4	4	4	4.0
R26	2	4	4	5	3.8
R27	4	3	4	5	4.0
R28	5	4	4	5	4.5
R29	3	4	4	4	3.8
R30	4	4	4	4	4.0
R31	4	4	4	4	4.0
R32	4	4	4	4	4.0
R33	3	5	5	4	4.3
R34	4	5	5	5	4.8
R35	4	4	5	5	4.5
R36	2	5	5	5	4.3
R37	4	4	4	5	4.3
R38	4	4	5	5	4.5
R39	4	4	4	5	4.3
R40	5	4	5	4	4.5
R41	5	4	4	4	4.3
R42	4	4	5	5	4.5
R43	4	4	4	4	4.0
R44	5	3	5	4	4.3
R45	3	4	3	3	3.3
R46	5	5	4	5	4.8
R47	3	4	4	4	3.8
R48	4	5	5	5	4.8
R49	5	5	5	5	5.0
R50	4	4	4	4	4.0

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