

APPENDIX B

Supplier Evaluations of TMAP-EM

Part 1: Just-In-Time (JIT)

ITEM	POINT	DETAIL	JUDGE
1 DELIVERY	0	NO DELIVERY DIAGRAM	
	1	HAVING DELIVERY DIAGRAM	
	2	POST NEWEST DELIVERY DIAGRAM	
	3	CAN SEE KANBAN STAGNATION	
	4	MINIMIZED KANBAN STAGNATION	
	5	HEIJUNKA ON DELIVERY PREPARATION OR LOADING ARE DONE	
2 PICKING AND SHIPPING	0	UNCLEAR PICKING AND SHIPPING STATUS	
	1	MAKE PICKING PARTS STATUS CLEAR	
	2	SET SHIPPING AREA SEPERATED BY DELIVERY ROUTE AND NUMBER	
	3	POST PICKING TIME AND SHIPPING TIME FOR EACH DELIVERY	
	4	MINIMIZE TIME FROM PICKING COMPLETION TILL LOADING	
	5	LOADING TIME FOR TRUCK IS LESS THAN 30 MINUTES	
3 SHOPPING FINISH GOODS	0	PUSH SYSTEM	
	1	PULL A UNIT OF DELIVERY	
	2	PULL FREQUENTLY WITHOUT HEIJUNKA	
	3	PULL FREQUENTLY WITH HEIJUNKA (MORE THAN 3 KANBAN/SHOPPING/LINE)	
	4	PULL FREQUENTLY WITH HEIJUNKA (1 OR 2 KANBAN/SHOPPING/LINE)	
	5	PULL A UNIT OF KANBAN WITH HEIJUNKA	
4 STORE	0	NO STORE	
	1	HAVE STORE BY LINE	
	2	IMPLEMENT FIFO SYSTEM	
	3	POST PRODUCTION INFORMATION AT STORE	
	4	CONTROL AND MAINTAIN KANBAN CORRECTLY	
	5	1 BOX EACH FOR STOCK AT STORE	
5 PRODUCTION	0	PLANNED PRODUCTION	
	1	QUALITY OF PULLED GOODS MORE THAN 1 DAY	
	2	1 DAY WITH LOT MAKING OR FIXED TIME, FIXED QUANTITY (TEI,TEI) SYSTEM	
	3	1 DELIVERY WITH LOT MAKING OR FIXED TIME, FIXED QUANTITY (TEI,TEI) SYSTEM	
	4	LESS THAN 0.5 DELIVERY WITH LOT MAKING OR FIXED TIME, FIXED QUANTITY (TEI,TEI) SYSTEM	
	5	PRODUCTION BY KANBAN	
6 CONVEYANCE BETWEEN LINE PROCESS	0	PUSH SYSTEM	
	1	PULL SYSTEM WITHOUT CYCLE TIME	
	2	PULL SYSTEM WITH CYCLE TIME	
	3	CARRY MORE THAN 3 KANBAN FOR EACH PART NO./CYCLE	
	4	CARRY 1 OR 2 KANBAN FOR EACH PART NO./CYCLE	
	5	CARRY 1 BOX/CYCLE	
7 OUTSOURCE PARTS LOGISTICS	0	NO PC STORE AND PUSH SYSTEM WITHOUT RULES	
	1	PUSH SYSTEM WITH RULE FROM PC TO LINE SIDE	

	2	PULL SYSTEM WITH RULE	
	3	ORDER PARTS TO SUPPIERS BY KANBAN	
	4	SAME DELIVERY PITCH FROM SUPPLIERS	
	5	FREQUENT DELIVERY FROM SUPPLIERS AND DIRECT SUPPLY TO LINE SITE	
8IMPLEMENTATION OF PULL SYSTEM	0	NO IMPLEMENTATION	
	3	ONLY 1 PROCESS AS MODEL LINE	
	6	SAME KIND OF ALL PROCESSES IN A PLANT	
	9	ONE OF LINE THROUGH OUT EVERY PROCESS WITH SMOOTH FLOW IN A PLANT	
	12	ALL OF LINES THROUGH OUT EVERY PROCESS WITH SMOOTH FLOW IN A PLANT	
	15	EVERY PLANT OF COMPANY	
Total (50)			

Part 2: Jidoka

ITEM	POINT	DETAILS	JUDGE
9 BUILDING QUALITY	0		
	2	ASSURANCE BY SHIPPING INSPECTION	
	4	INSPECT AND ASSURE IN EACH LINE	
	6	CHECK EACH PROCESS & MACHINE AND ASSURE EACH PROCESS	
	8	DETECT A DEFECT IN PROCESS AND TAKE ACTION	
	10	CAN BUILD QUALITY COMPLETELY IN EACH MACHINE	
10 HUMAN & MACHINE WORK SEPARATION	0		
	1	STOP WHEN PROCESSING IS FINISHED OR HAVE ABNORMALITY	
	2	HAVE CALL DEVICE (ANDON)	
	3	HAVE STANDARDIZED WORK	
	4	NO WAITING IN OPERATION	
	5	FLEXIBLE MANPOWER LINE	
11 FLEXIBLE MANPOWER LINE SYSTEM	0		
	1	GRASP NECESSARY MANPOWER AND ACTUAL MANPOWER (EVERY MONTH)	
	2	CAN SEE DELAY AND ADVANCE (CAN SEE IDLE TIME)	
	3	ADJUST MANPOWER WHEN PROCESS HAVE IDLE TIME	
	4	BIG ISLAND BY COMBINE LINE OR CONNECT TO LINE	
	5	DIFFERENCE BETWEEN NECESSARY MANPOWER AND ACTUAL MANPOWER IS "0"	
12 MULTI-PROCESS HANDLING (STANDARDIZED WORK, SET UP, ABNORMALITY COUNTERMEASURE)	0		
	1	GRASP PRESENT CONDITION AND HAVE MULTI-PROCESS HANDLING TRAINING PLAN	
	2	HAVE MORE THAN 2 TRAINED OPERATORS FOR EACH PROCESS	
	3	MORE THAN 2 TRAINED OPERATORS CAN DO EVERY PROCESS IN EACH LINE	
	4	MORE THAN 2 TRAINED OPERATORS CAN DO EVERY PROCESS IN EVERY LINE	
	5	MORE THAN 2 TRAINED OPERATORS CAN DO EVERY PROCESS IN ZONE	
13 FLEXIBLE LINE	0		
	1	SET A LOCATION AND GRASP PRESENT WORK LOAD IN EACH MACHINE	
	2	HAVE GENERAL PURPOSE MATRIX	
	3	KAIZEN FOR INCREASING GENERAL PURPOSE	
	4	HAVE FLEXIBLE EQUIPMENT SYSTEM (COMBINE MACHINE)	
	5	WORK LOAD RATIO OF EVERY EQUIPMENT IS 100%	
Total (50)			

Part 3: Daily Control

ITEM	Point	Detail	Judge
14 STANDARDIZED WORK	0		
	1	WORK STANDARDS ARE FIXED (HAVE WORK STANDARDS)	
	2	HAVE STANDARDIZED WORK BUT IT DOESN'T STABLE AND CONTINUAL WORK)	
	3	FOLLOW STANDARDIZED WORK	
	4	FOLLOW STANDARDIZED WORK BUT CAN FIND MUDA AND STILL NEED IMPROVEMENT	
	5	DO EFFICIENT STANDARDIZED WORK	
15 PERFORMANCE ANALYSIS BOARD	0		
	1	GRASP PRODUCTION RESULT EVERY HOUR	
	2	GRASP PLAN AND RESULT EVERY HOUR	
	3	RECORD ABNORMALITY EVERY HOUR	
	4	TAKE ACTION TO ABNORMALITY EVERY SHIFT OR DAY	
	5	TAKE ACTION TO ABNORMALITY EVERY HOUR	
16 DIRECT OK RATIO	0		
	1	HAVE CLEAR DEFINITION OF DIRECT OK RATIO	
	2	GRASP CURRENT DIRECT OK RATIO	
	3	GRASP CAUSE OF NON-DIRECT OK RATIO	
	4	SET REPAIR PROCESS OR REPAIR OPERATION RULE	
	5	TAKE ACTION TO REAL CAUSE OF NON-DIRECT OK RATIO	
17 ATTENDANCE RATE	0		
	1	ADJUST ANNUAL HOLIDAY AMONG OPERATORS	
	2	CLASSIFY DAILY ABSENCE DETAIL	
	3	VISUALIZE TODAY'S OPERATOR LOCATION	
	4	SET RULE (HOW TO DO) WHEN OPERATORS TAKE ABSENCE MORE THAN TARGET	
	5	OPERATOR ABSENCE IS ON TARGET AND STABLE	
Total (20)			

Source: From surveys (2007)