ROI Analysis

3) Corrective Action Process

	Process Time (minute)				
Corrective Action Process	**W/O a system**	**Manual System**	**in-house system**	**QIT System**	**Remark**
QA initiate CAR	0	20	5	5	
QA send CAR	0	10	1	1	
Responsible Person receives CAR	0	5	1	1	
Responsible person analyzes CAR	0	10	10	10	
Responsible person conduct root cause analysis	0	60	30	15	QIT system has a built root cause analysis tools which will help user conduct in-depth root cause analysis
Responsible Person sends CAR back to initiator	0	10	1	1	
Initiator review CAR	0	20	5	5	
Initiator close CAR	0	10	1	1	
Total Minutes for a CAR	**0**	**145**	**54**	**39**	

4) Productivity Comparison

	Total Administrative Time (minute)				
Annual Cost for 300 CARs	**W/O a system**	**Manual System**	**in-house system**	**QIT System**	**Remark**
Annual process time for complaints (100 complaints/y	0	0	0	0	
Annual process time for nonconformance (500 noncor	0	0	0	0	
Annual process time for CAR (300 CARs)	0	43500	16200	11700	
QA Summarize CAR Cost, Failure Mode, and other re	0	11520	12	12	for manual process, it will take 2 working days/month to summarize data. Computerized systems have instance reports and will take 1 minute/month to general reports.
Total Administrative Time (minute)	**0**	**55020**	**16212**	**11712**	
Total Administrative Time (hour)	**0**	**917**	**270**	**195**	78.7% productivity improvement after moving from the manual system to QIT system

5) Total Cost Comparison (budget configuration)

	Cost				
Cost Driver	**W/O a system**	**Manual System**	**in-house system**	**QIT System**	**Remark**
Administrative Cost ($36/man hour)	$ -	$ 33,012.00	$ 9,727.20	$ 7,027.20	
Software Cost	$ -	$ -	$ 26,666.67	$ 20,000.00	Develop an in-house system will take two experienced engineers (80K/year) at least 2 months to develop and test the system.
Penalty cost for 100 complaints and 500 nonconformance	**Who can calculate the cost and who can afford such loss?**	$ -	$ -	$ -	
Total Cost	**> 1 M?**	**$ 33,012.00**	**$ 36,393.87**	**$ 27,027.20**	19% cost saving comparing to Manual System
					26% cost saving comparing to In-house system