

2015年度

デミング賞
受賞報告講演要旨

CPRAM Company Limited, Ready to Eat Food Business

Chapter 1 Outline of the applicant organization

History and Overview of the Company

Factory name : CPRAM Co., Ltd.

Registered name: CPRAM Co., Ltd.

Factory address : 177 Moo 4 Pathum Thani-Lardlumkaew, Lardlumkaew District, Pathum Thani 12140

Relationship with Charoen Phokphand Group

CPRAM is one of the subsidiaries under Charoen Pokphand Group having CP ALL (Public) Co., Ltd. as the mother company. Its business is mainly on retail and marketing area.

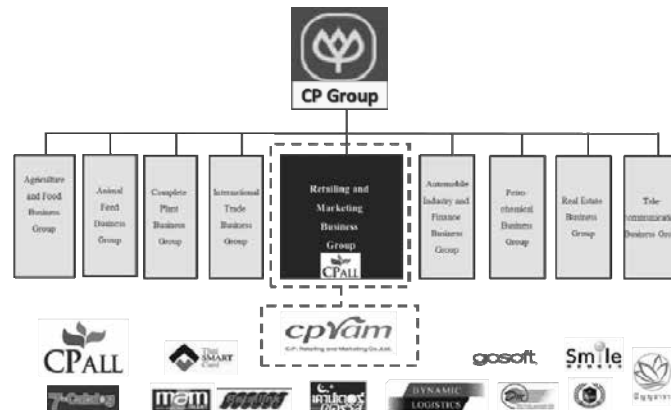


Figure 1-1 Relationship between CPRAM and Charoen Pokphand Group

CPRAM Co., Ltd. Or “CPRAM” is the subsidiary company of Charoen Pokphand Group under Retail and Marketing business group with the registered capital of 20 million Baht. CPRAM was founded in 1988 and has been running business in manufacturing more than 500 types of ready-to-eat quality food covering dim sum and ready-to-eat Thai food e.g. Chinese bun, Chinese Steamed Dumpling, Snack Box, Springroll, etc. Which are amounted to 80% of total manufacturing volume and the rest 20% belongs to other ready-to-eat food. CPRAM has categorized the manufacturing factories into Factory 1, 2, 3, 4 and Chonburi Plant which occupy 3,600 tons per year for the manufacturing capacity at early stage and still keep continuous promising expansion until now the registered capital is upto 600 million Baht with the total manufacturing capacity of 76,000 tons per annum.

The company has been running the food manufacturing business specifically on quality frozen processed food and also distribute those instant frozen processed food to both domestic and overseas market. Since the company is the manufacturer and distributor of consumption products, the company well realize about the food safety issue towards consumption. Therefore the company has applied and implemented the Hazard Analysis and Critical Control Point : HACCP with every single step of manufacturing process and in order to ensure the system management, the company has requested for the System Verification and Certification from the Department of Fisheries, Department of Livestock Development , Department of Sciences and have already met an international standard as being accredited by the international institutes such as the British Retail Consortium (BRC), International Food Standard (IFS). With the company’s spirit to manufacture the high quality products with the key focus on quality and safety in manufacturing the frozen and chilled food, the company has strictly implemented the management system to comply with an international standard and can finally gained an International Accreditation such as ISO9001 which can ensure the superb quality delivered in accordance with the company’s policy, the Corporate Environmental Management System (ISO 14001), Good Agriculture Practice (GAP), the Occupational health and safety management system standards (TIS18001) which currently CPRAM has integrated all 3 systems into one single system called “The Manual of Integrated Management System” and has successfully met the Standard for Corporate Social Responsibility (CSR) as certified by the Ministry of Industry which is the sustainable development with the focus on environment and safety. In addition, the company has been recognized and accepted in an international level as showing the sincere responsibility towards the stakeholders and society incorporated with the continuous growth and efficiency development.

Factory Age	:	26	years	
Industrial type	:	ready to eat food		
Total Factory Area	:	117,056	m ²	
Factory working days	:	Monday - Saturday		
Office hours	:	8.00 - 17.00 hrs. (8 hours per day)		
Factory working shift	:	Day shift	8.00- 17.00 hrs. Night shift	20.00- 05.00 hrs.

Layout of CPRAM

CPRAM consists of 4 processing plants, plant 1 to plant 4 (plant 3 has just started since May 2013) as shown in Figure 1-2

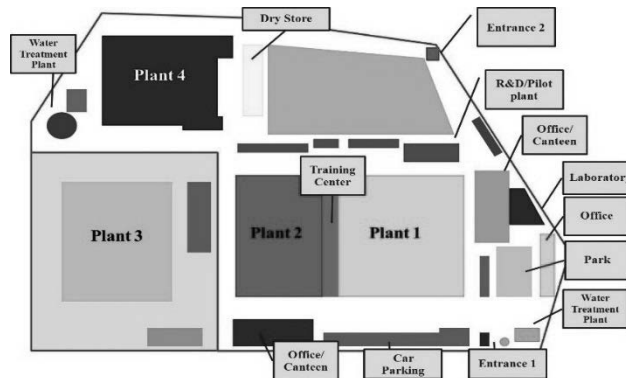


Figure 1-2 Layout of CPRAM

Building and Facilities

1. The Manufacturing Factories (Further Process): Factory 4 is modernized and can manufacture the replaced products in case any of the factories encounters any difficulties and this is to pave the way to support the market expansion in the future. This makes the company confident that we can cope with all orders and can constantly and continuously meet with customer's demand.

2. The Pilot Plant gives support to Research & Development Unit in order to keep developing the products to promptly meet with customer's demand and can still introduce the new products to the market. Moreover, the plant can reduce the variation of manufacturing procedure and minimize any damages may have caused from the production process before delivering to customers.

3. Modern Library and Training Center is like the company's knowledge & information sharing. The training center can accommodate up to 500 staffs for the staff training per day. It opens daily with Internet and Intranet available for employees to spend time on self-learning.

4. The Quality Control Operations Room which control the product quality to comply with ISO/IEC17025 standard. This unit can both conduct the quality analysis as well as issue the result certification with an equivalent to the government sector.

5. Modern Distribution Center of Frozen Processed Food: This is the only one center in Thailand which can distribute products to customer's branches for over 10,000 places nationwide.

6. Sport and Recreation Center: It's the big center which can accommodate more than 300 employees per time for their health exercise. This is to allow our staffs to pamper their health in the protection way with various kinds of recreation activities.

Newly established plant in 2013-2014

Factory 3 is the newly established plant built specifically to support the production capacity of frozen food. This is the plant that has developed into the Automation Process from the very beginning step of implementing new Technological machine i.e. IH / Induction Heating and Robot to automatically close the lid of the tray. This promotes the positive result in utilizing less manpower while increasing productivity to meet customer's demand in term of production.

Production Process

The key production process of CPRAM starts from the Raw Material Receiving, Raw Material Preparing, Forming, Cooking, Freezing, Packing, Storage and Product Distribution to customers and consumers as per Figure 1-3. Hence the production process is subject to change depending on the product category.



Figure 1-3 Key manufacturing process of CPRAM

Product Category and Production Capacity

1. Frozen Fully Fried Product such as Fried Springroll, Minced Chicken & Sweet Corn in Crispy Cup, Shrimp Toast under “Jade Dragon” brand
2. Frozen/Chilled Ready Thai Meal Product such as rice topped with stir-fried pork and basil, Fried rice with crabmeat, Spicy Soup with Shrimp under “Deli Thai” brand, Frozen / Chilled Brown Rice under “EZYGO”, “7-Fresh” brand
3. Frozen Steamed Product such as Chinese Steamed Dumpling, Chinese bun, Shrimp Wontons, etc. under “Jade Dragon” brand
4. Frozen Grilled Product such as Pork Burger, Chicken Burger under “Delicasia” brand

Table 1-1 Production Capacity classified by each product category

Product Category	Production Capacity (Tons/Year)	
	2013	2014
1. Frozen Fully Fried Product	7,800	5,100
2. Frozen/Chilled Ready Meal Product	22,000	51,912
3. Frozen Steamed Product	10,000	16,920
4. Frozen Grilled Product	2,200	2,400
Total	42,000	76,332

Market and Product Category

Table 1-2 Market Proportion by Product Category

Product Category	Market		
	Domestic Market (%)	Overseas market	
		%	Country
1. Frozen Fully Fried Products Ex. Spring Roll, Prawn toast	1%	99%	UK, Netherland, Germany, France, Spain, Belgium, Russia, Greece, Switzerland, USA, Canada
2. Frozen & Chilled Ready Meal Products	100%	-	-
3. Frozen Steamed Products Ex. Dim sum	99%	1%	UK, Germany, Japan, Hong Kong
4. Frozen Fully Grilled Products Ex. Burger	100%	-	-
Product Brand	JADE DRAGON, Deli Thai, DELICASIA, CPRAM CATERING		

Capital Information

Table 1-3 Capital Information

Item	Founded in 1988	Current Value	Remark
Capital investment (Baht)	20 million Baht	600 million Baht	
Value of land and buildings (Baht)	-	2,160 million Baht	Value after depreciation
Value of machines, tools and equipments (Baht)	-	1780 million Baht	Value after depreciation
Working capital (Baht)	-	1,005 million Baht	

CPRAM’s Corporate Core Competencies

CPRAM top management had conducted the workshop with those expertises in order to analyze the Corporate Core Competencies and finally found that CPRAM has gained the sophistication from collaborative knowledge which enables product differentiation i.e.

1. Mobility and Flexibility in product variety management system and speed to market
2. Food Safety System

CPRAM Organizational Structure

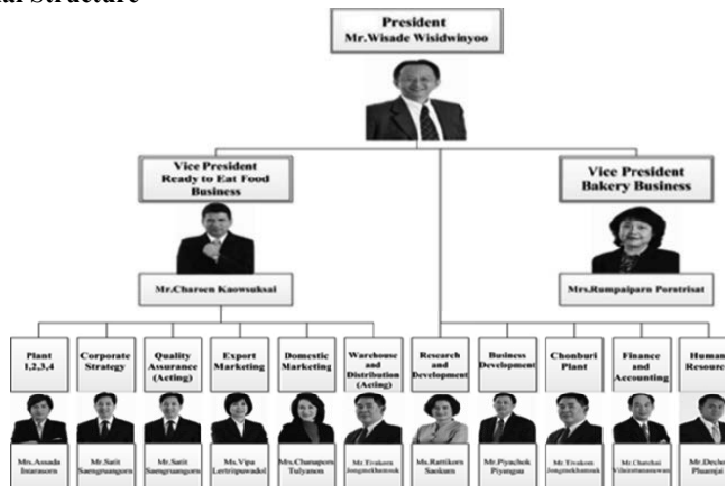


Figure 1-4 CPRAM Organizational Structure

CPRAM is under the lead of Mr. Wisade Wisidwinyoo as the Managing Director taking care of both businesses i.e. Ready-to-eat meal and Bakery business which manufactures and distributes all fresh baked pastries.

The Ready-to-eat meal business is supervised by the Deputy Managing Director, Mr. Charoen Kaowsuksai. The organization comprises of 11 divisions as listed below:

1. Production Plant Division
2. Corporate Strategy Division
3. Quality Assurance Division
4. Export Marketing Division
5. Domestic Marketing Division
6. Warehouse and Distribution Division
7. Research and Development Division
8. Business Development Division
9. Chonburi Plant Division
10. Finance and Accounting Division
11. Human Resource Division

Business Environment

Position in Domestic Market

The overall market value of ready-to-eat food in Thailand is amounted to 10,000 million Baht with 15% annual growth rate. Its distribution channel is through convenient store with sales volume amounted to 7,000 million Baht which is considered as the highest growth especially at 7-Eleven store under the business run by CPRAM which is the leader in this business sector gaining 55.3% market share. The current market volume for frozen dim sum in Thailand is about 4,000 million Baht.

% market share of ready meal food (Domestic)

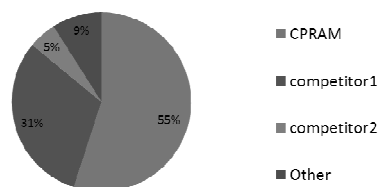


Figure 1-5 % Market Share of Ready Meal Food

% market share of Dimsum (Domestic)

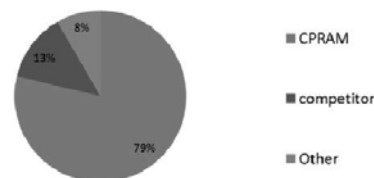


Figure 1-6 % Market Share of Dim Sum

Position in International Market

For International Business, as the market of CPRAM's core product became commodity product which many competitors can produce, so the market share of CPRAM is going down by the major competitors in China, Vietnam and Thailand.

The key factors driving the success of CPRAM compared to their competitors are:

1. Speed in launching new products (Cycle Time) Currently the market competition among Frozen/chill Ready Meal and Dim Sum is very intensed. The customers always demand for the quick launch of new product. Therefore, CPRAM has kept developing technology with modern equipments adding the knowledge base of the company in order to meet consumers' needs and to enhance the competitive advantage.

2. Varieties of product categories. CPRAM keeps on with their product development and has been manufacturing over 500 kinds of ready-to-eat meal delivered to the consumers in several distribution channels.

3. Products and production process that met an international standard e.g. United Kingdom, European Union, Japan, China, Singapore. CPRAM is well accredited by the EU to supply products to EU especially by the department store which is an intermediate business like Tesco, M&S, Iceland and Sainsburys which join the inspection and certify if the Customer Standard is met.

4. Having cooling distribution system which is very modern and efficient and can distribute to consumers nationwide on a daily basis by using more than 500 cold vans which can well meet with consumer's demand on time.

Strategic Challenges

1. New entries of competitors: The domestic frozen ready-to-eat food gains about 20% market growth and The market situation of retail business like convenient store in Thailand still has a big room for further business expansion which is in line with the more expansion of urban societies, consumers' lifestyle with limited time and smaller size of family. All of these are the factors which drive the popularity of purchase through convenient stores and 7-Eleven as the key customer of CPRAM also turns itself to be the Convenience Food Store as a result of the change in consumer behavior with the focus on frozen food category, to present itself as the convenient filling stomach store which can offer service to consumers for 7 meals a day and it tends to grow more. In addition, there is a growing trend for frozen food market expansion which also attracts the new market entry of other entrepreneurs.

2. Food Safety Standard : Since the consumers and customers realize about the food quality and safety concern and the competitors have kept improving on their production capacity and enhancing more product quality, the domestic and overseas customers require more of regulations and standards in term of product quality and production process and it's also a part of some trade restrictions issue, all of these make CPRAM to keep developing their product quality in order to meet its utmost excellence beyond the competitors and those overseas parties will have no more arguments to restrict CPRAM products.

3. The competitors' products are manufactured from the low-cost production base. This is resulted from the memorandum of Free Trade Area with other countries. This causes those major manufacturers in foreign countries move their production base to the country with lower production cost in order to boost up more competitive advantage.

4. Lack of labour resource: in order to support the growing business expansion every year, CPRAM need more new labors, and as CPRAM factories are located in the area like huge industrial production zone, CPRAM need to compete more to acquire the quality and skilled labors

Chapter 2 Management Objective and Policy

Objectives of CPRAM

To produce and distribute the quality and safety food according to the international standard in order to meet the demand of consumers who need convenience and quickness for their modern lifestyle.

Philosophy "Food is necessary for life. The quality food delivers the quality life. "CPRAM" aims to deliver quality food which is fulfilled with food safety, nutrition, and arts of appreciation on consumption in order to make our world and to enhance healthy, bright and lively life.

Vision

CPRAM will be the world leading manufacturer and distributor of ready to eat foods that the customers have entrusted.

Mission

1. Establish trust, confidence and impression to customers with product quality and excellent services.
2. Create employee engagement through knowledge and skill development as well as good quality of life.
3. Run the business with good governance, have environmental management system according international standards and participate in improving the quality of life for society and community.
4. Develop an efficient and effective work system with innovation throughout the supply chain.
5. Develop the business for continuous growth and sustainability.

Core Value (C-P-R-A-M)

C: Creative
P: Productive
R: Relationships
A: Attitude
M: Morals

Corporate culture (I-ACT)

I: Innovation
A: Agility
C: Customer Focus
T: Teamwork

Throughout 26 years, CPRAM have great determination to constantly improve and develop the business from the fundamental system such as GMP, HACCP, BRC as well as the modern work system and world-class accredited standard such as TQM, TPM and Lean. Since CPRAM have applied to get the various quality awards which are given based on Assessment and Diagnosis from the external expertise which is the great way to catalyst the organization to develop very fast and it turns to be the ongoing opportunity for improvement by following the CPRAM Mile Stone which keeps growing through decades of the developments throughout the past 26 years.

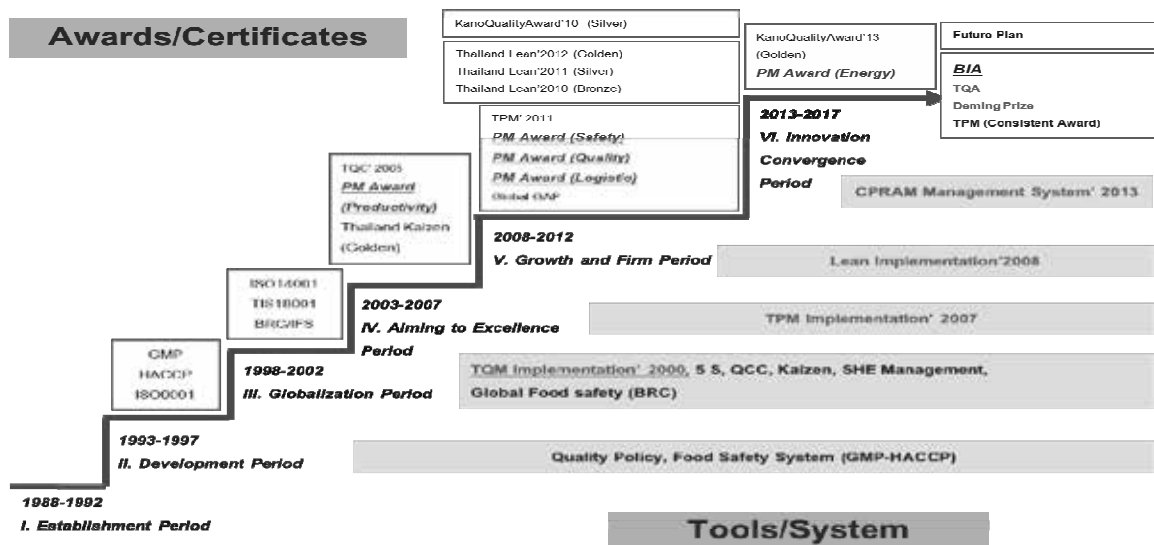


Figure 2-1 CPRAM Mile Stone

For the quality award given to CPRAM, the top management of CPRAM keeps on offering full support to employees in all levels to maintain their good job quality in term of excellent work performance with continuous improvement and development.

Further development

- CPRAM uses the modern management system by bringing the TQM approach to be the administration & management guidelines.

Overall the organization well delivers the quality & service excellence and has been applying the TPM / Lean to improve and upgrade the Shop Floor in order to achieve Operation Excellence and to drive up the business with 5 CPRAM Values which comprise of C : Creative P: Productive R: Relationships A: Attitude M: Morals. In addition to CPRAM value, the work culture should be cultivated in the work environment which is called I-ACT comprising of Innovation, Agility, Customer Focus, Teamwork.

- CPRAM keeps on continuous improvement by finding any new opportunity to continue improving the quality such as applying for The Prime Minister Industry Award awarded by the Ministry of Industry. There are 6 different awards and the highest award honorably won is The Prime Minister Best Industry Award in 2014 as per details below :
 - (awarded in 2008) 1. Industry Award – Productivity
 - (awarded in 2010) 2. Industry Award - Safety Management
 - (awarded in 2011) 3. Industry Award – Quality management
 - (awarded in 2013) 4. Industry Award – Environmental Quality Conservation
 - (awarded in 2014) 5. Industry Award – Energy Management
 - (awarded in 2014) 6. The Prime Minister Best Industry Award which is the top award given to the only one top company. The company who is eligible to this award must gain at least 3 Industry Awards. This is our great pride and honor to receive the Prime Minister’s Best Industry Award from the Prime Minister.
- Top Management has the great determination and commitment to make CPRAM as
 - the Sustainable Organization by constantly building value to all stakeholders.
 - the Innovation Organization as resulted from the readiness of all types of resources for both tangible resources or intangible resources. The business is to be run under Innovation Culture
 - Learning and Knowledge Organization which brings all various sciences of management for further topping up of integrated business expansion. This is the integration of all knowledges between different sciences under the same professional business and finally comes up with what is called Multidisciplinary.



Figure 2-2 CPRAM Innovation Tree

CPRAM Innovation Culture

There are 8 issues which have been cultivated for several years with numbers of innovations contributions

1. **Compelling Vision:** In addition to challenge, the compelling vision in terms of forseeing the clear picture of new and potential innovations can really drive up the bold inspiration to make the vision alive.
2. **Inspirational Leader:** The top management until the head of small units are ready to be the good role model showing high enthusiasm in building the innovation and to inspire and spark others to collaborate with the innovation creation.
3. **Effective communication:** The effective communication must provide the complete and precise contents without causing any doubt or confusion or different guess of interpretation directly to the recipient of message. There should be no relay of messages which finally causes the wrong message understanding. The message must be sent to the recipient promptly without any delay.
4. **Empowering Climate:** Empowering climate to create new learnings can be done via knowledge and experience sharing in the company. This is to facilitate the knowledge management for further coming up with new innovative idea under the environment that supports more recreations and creativities. This is to open for the productive expression of opinion as the idea and opinion presentation stage, and with the readiness of tools, people have more confidence to take action and responsibility.
5. **People Development & Learning:** New knowledges and technologies are always being newly discovered throughout the time. To keep improvement of people in all levels is a must-do thing in order to create Multidisciplinary Knowledge based innovation and to foster the team work.
6. **Goal oriented:** Every organization has their own goals no matter the short-term, middle-term or long-term one and definitely must be measurable. The innovations which are in line with the goals will enable the way to excellent goal achievement.
7. **Customer Admired:** The heart of business is to respond to customers' needs and beyond the customer satisfaction is their trust given to the organization together with their acceptance, compliments and continuous loyalty to the company.
8. **Stakeholder Engagement:** The company opens a chance to all stakeholders either direct or indirect way to participate in the innovation creation by giving idea, actions or acknowledgment of the mutual success and pride. This helps to create the boundless and endless sustainable collaboration for the overall social value.

With further development, top management plays the key important roles in terms of the followings:

1. Top management enhances the work environment to encourage performance improvement by using TQM, TPM and Lean to support every employee to get involved in self-work improvement and there is the Motivation Reward to motivate them to do so. In each year, there will be the activities aiming for knowledge sharing and enhancement which can efficiently bring out the innovation and also promote the other kinds of quality work to continuously improve and develop the organization through the implication of these tools such as Ant Mission (QCC) / Innovation Conference, Cross-functional Alignment, Work Improvement Activity, CPRAM Awards, CP Innovation Exposition, etc.
2. Sponsor all resources

The top management always facilitates all need resources required by the employee for both tangible resources such as capital investment, machineries, equipments, etc. and the intangible resources are those Information Capital, Relationship Capital. This is to support every employee in the organization to keep improving and developing the work constantly and efficiently. As moving forward to the organization of Innovation Culture, the management has announced the returns for those who pass the selection of Innovation Work from 4 stages which are:

- President Award (Business Group Level) 300 points
- Process Excellent Award (Business Group Level) 300 points
- CP Innovation Exposition 500 points
- National Innovation (National level) 1000 points

When the employees get the Innovation Award from all these 4 stages, when the cumulative points are from at least 100 points, they are entitled to receive the special increase on remuneration per month. This leads to high employee motivation which motivates them to bring out the innovation outcome in order to enhance more innovation works from every work section

3. Role Model

Top management is the good role model in applying CPRAM Management System to the real job in order to promote work development and ongoing success to the business. In addition, all employees in the organization can take this role model as the stereo type and efficiently apply it to each individual job.

Management Policies and Deployment

CPRAM has the policy distribution by starting from the Policy Setting and Strategic Planning. There are 8 steps for CPRAM strategic management which are...

Step 1: Information Gathering

Information gathering is from both internal and external sources.

External Information Gathering is by inviting the external guest speaker to share the knowledge & experience regarding economics, society, and politics. They are gathered from both vendors and customers by inviting the key vendor for Vendor Conference and to share some information about need as well as the competitive information, competitive situation. The information from customers is in term of mutual business review.

Internal Information Gathering is to gather information from all business sections providing that each sector is responsible for screening and gather information. This helps to get the up-to-date information whenever required. This also enhances some internal factors which are production capacity, manpower resources, etc.

This kind of information will be the information technology stored in the corporate database which will be used for further strategic analysis in the next step.

Step 2 : Strategic Analysis

For this stage, the management from each sector will join the brain storming session by bringing those relevant information technologies from Stage 1 to analyze based on Five Forces Model, Value Chain and BCM, etc. After that, it comes to the review of prioritization, strategic objective setting, key goal, and short-term plan in order to achieve all strategic goals and Formulation Table as the examples shown below:

Vision	mission	Strategic objective	Strategy	KPI	Initiative plan
Become the world leading manufacturer and distributor of ready to eat foods	1. Trust, confidence and satisfaction to our customer. With quality products and excellent service.	1.1 Satisfaction and engagement with customers.	Decrease Customer Complaint	%Customer Engagement	1. Supplier Development (raw material and Out Source) 2. relationships with customers 3. Implementation of the corrective and prevent action Plan .
		1.2 Product Variety and adequate supply	Respond to customer satisfaction	%Customer Engagement	1. Logistic Route Planning (Utilization)
			Products Improvement and new products development	1.%Customer Engagement 2.Total sales	1.Work Flow Application 2.Central Kitchen (Commissary) 3.Basic Research / Application Research/ Commercial Research 4. Research and Technological Development, in collaboration with leading institutions of the country or the world. (A partnership) 5. Add New products by CP RAM offer proactive customer. 6. Add Product development for steamed in the microwave.
		1.3 response to customer expectation	1.Product Differentiation 2. new markets / new customers	-Total sales	1. Product Planning with customers. 2. Packaging Differentiation ,Environmental Friendly , Shelf Friendly Packages 3. Research new product with customers 4. Add the dessert menu 5.USA , Canada ,Australia/New Zealand , Russia , Scandinavia , Japan , AEC

Figure 2-3 CPRAM Strategies

Step 3: Strategic Formulation

From the strategic objective analysis, it comes to the corporate goal setting (KPI Level 2) by classifying into several points of view based on the company commitment.

Step 4 : Strategic Cascade

CPRAM applies the tool called Hoshin Deployment Matrix (HDM) in order to distribute the corporate goals as per Figure 2-4 which distributes the roles and responsibilities of each sector in a compliance way by classifying as the Key Owner (Owner: O) of a certain corporate goal, and any sector who assists and supports that certain goal achievement (will be called Supporter: S).

Strategic deployment matrix 2015																						
/	/	/	/	/	1. Trust, confidence and satisfaction to our customers. With quality products and excellent service.	/	/	/	/													
/	/	/	/	/	2. Focus on human resource development through the knowledge enhancement and good quality of life																	
				/	3. Business operations with Good governance, environment. According to international standards And contribute to improving the quality of life for society and community.																	
		/	/	/	4. Develop efficient and effective work process through the supply chain																	
/	/	/	/	/	5. Develop business for sustainable Growth.	/	/	/	/													
					<table border="1" style="width: 100%; text-align: center;"> <tr> <td colspan="2">Corporate Mission</td> <td colspan="2">Division</td> </tr> <tr> <td>Stakeholder</td> <td>Mission and Goal 2015</td> <td>Stakeholder</td> <td>Division</td> </tr> <tr> <td colspan="2">Corporate KPI</td> <td colspan="2"></td> </tr> </table>	Corporate Mission		Division		Stakeholder	Mission and Goal 2015	Stakeholder	Division	Corporate KPI				Product management 7-11(C)	Support Sales 7-11(Even)	Sales noor 7-11(O)	Sales noor 7-11(C)	Sales noor 7-11(C)
Corporate Mission		Division																				
Stakeholder	Mission and Goal 2015	Stakeholder	Division																			
Corporate KPI																						
/	/	/	/	/	4. Total Sales																	
/	/	/	/	/	4.1 NPD Sales	o	o	o	o													
/	/	/	/	/	4.2 Sales of new customer			o	o													
/	/	/	/	/	4.3 Sales of regular customer	o	o	o	o													
/	/	/	/	/	4.4 Sales of brand product	o	o	o	o													
/	/	/	/	/	4.5 Sales of Catering																	
					4.6 Sales of Food Shop/Kiosk				o													
					4.7 Sales of Central Kitchen (Commissary)	o	o															
/	/	/	/	/	5. %Brand Awareness	o	o	o	o													

Figure 2-4 Example of CPRAM Hoshin Deployment Matrix (HDM) in order to distribute the corporate goals

Step 5: Level III Tactics (KPI, Action Plan, Budget)

After distributing the company goal to the operations level through HDM tool, every unit need to bring the topics got from the meeting to set KPI (KPI Level 3) and also need to draft the Operational Plan as a guideline to achieve goals, a plan to arrange machines and equipments for further investment budget plan and the manpower forecast plan including the staff qualification which will pave the way for further human resource recruitment plan and people development plan.

Step 6: Resources allocation and approve CPRAM-LLK’s strategy

When all units finish the implementation guidelines for further goal achievement, every unit must summarize the KPI, budget, number of employees to be recruited, and the yearly training plan for further management’s approval.

Step 7: Implementation

After KPI and Action Plan have been set by all sections and the work implementation has been done according to the plan and the use of HDM system as the management direction and work guidelines. The top management focus on the overall Figure of Operational plan compared to the indicators and goal settings in order to analyze the effectiveness of work performance. If any issue which may impact the goal achievement is found, the improvement will be done right away to ensure the work plan is still in the right direction.

The key result of the work will be used as the database for further knowledge sharing and work adjustment. The performance review will be conducted on a monthly basis at the unit level.

Step 8: The result review

Table 2-1 Key performance review

Review Frequency	Reviewed Details	Indicators and Information Report	Prepared by	Responsible Person
Daily Review	Daily operation for production, marketing and logistics	Real time daily operations such as reject, rework, %yield, logistics, production capacity, energy consumption, sales order and customer complaint	Production/Sales and Marketing/Transportation/warehouses/QA	Relevant department manager
Review Frequency	Reviewed Details	Indicators and Information Report	Prepared by	Responsible Person
Weekly Review (WPR)	Operation performance for production, marketing and logistics	Product quality, energy consumption, Cross Functional performance, factory meeting, logistics performance and sales volume	Production/Sales and Marketing/Transportation/warehouses/QA/R&D	Factory manager and Sales and marketing manager
	Supplier performance	On time delivery, raw material quality, raw material ingredients, packaging	R&D, QC, Procurement, Production	Purchasing department manager
	Sales and marketing Performance	Customer satisfaction, sales volume, customer complaint, loss of customer/retention order, new product plan	Sales and Marketing Department	Sales and marketing manager
	Quality performance	Customer Complaint, Customer response time, Raw materials	QA Department	Department manager
Monthly Review (MPR)	- Overall performance - Energy usage Etc.	Comparison of performance against the plan and target for customer aspect, operation, technology, human resources, safety, health & environment, financial, performance on information and TQM meeting	Department manager	Top Management /Head of division
Quarterly Review (QMR)	Progress on Strategic Plan/Action Plan and any changes that have side effects etc.	Performance compared with quarter plan, organization objective, performance review and strategy review.	Department manager	Top Management /Head of division
Annual Review (AMR)	-Management Review -Vision/Mission -Strategic Objective/Action Plan -VCP/SP -Measurement/Indicator -Approach and Deployment -Method -Etc.	ISO9001, ISO14001, TIS18001, customer satisfaction creation process, Kaizen process review	ISO9001, ISO14001, TIS18001. Committee	Top Management /Head of division
		Review performance from plan against target, performance according to SHE system, Community support review, power distribution result and Benchmarking of organization direction.	Human resource Department manager, SHE Committee Safety Committee	Top Management /Head of division
		Performance improvement shows effective result and more new innovation	Department manager	Top Management /Head of division

Chapter 3 TQM Introduction and Promotion

CPRAM implements the concept of House of quality as per Prof. Dr. Noriaki Kano’s idea together with the qualified criteria of Thailand Quality Award as depicted in the HOQ format as per Figure 3-1 House of quality

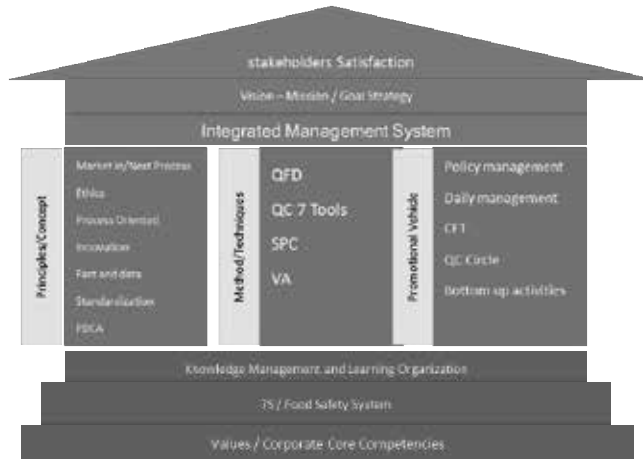


Figure 3-1 House of quality

Our work management is classified into 2 categories, the first one is Line Management as per Figure 1-4 CPRAM Organizational Structure and the second one is the crossed-line management which all is called TQM management committee group that comprises of 6 subgroups committee. They are Sub-committee to lead the organization, Sub-committee on strategic plan, Sub-committee for customer orientation, Sub-committee for knowledge management, Sub-committee for people orientation, Sub-committee for procedure management. Each sub-group committee will attend the weekly progress meeting to discuss about problems and solutions and to follow up the work progress of each project and to review the short-term and long-term plans including the adjustment on strategic goals in order to get the satisfactory outcome. There will be the quarterly meeting to review the work performance and strategic plan. Each committee group has the key roles and responsibilities as follows:

TQM Committee

In order to create value for the organization and TQM culture continuously throughout the organization, the management has assigned TQM team and divide management category as follow.

Table 3-1 CPRAM’s TQM Committee

Content	Leader	Team members
1. Leaderships	Mr.Charoen Kaowsuksai	Mr.Sarawut Ketanond Mrs.Phanaporn Charkornaruenut Mr.Decho Pluamjai Mrs.Supranee Chanachai
2.Strategic Planning	Mr.Satit Saengruangorn	Ms.Chanyaruch Pheerawat Mr.Prachaya Kreunakpanth Ms.Chayanee Promsongyang Mr.Abeshek Ichanontt
3. Customer orientation	Mrs.Chanaporn Tulyanon Ms.Vipa Lertritpuwadol	Mr.Pradit Sanpetchsiri Mr.Teerayut Limphakanvet Ms.Chanyaruch Pheerawat Ms.Nanthanath Pitawiwathanont
4.Measurement, Analysis and Knowledge Management	Mr.Chatchai Vilairattanasuwan	Mr.Chaikiat Pookasorn Mr.Nuthasit Ungphakorn Mr.Prachaya Kreunakpanth
5. People Orientation	Mr.Tivakorn Jongmekwamsuk	Mr.Decho Pluamjai Mrs.Nalinthorn Cheumingparn

6. Process management	Mrs.Assada Intarasorn Ms.Rattikorn Saokum	Mr.Kobchai Kongtavee Mr.Chumpon Leelasupaphong Mrs.Khaneung Thompad
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TQM Committee & Job Role

1. Sub-committee to lead the organization play the major role on corporate vision & mission review and Settings. Every year, there are the core value settings to encourage employees to follow and express the values and behaviors which comply with the company vision & mission. The behavior of each value is set such as Creative Productive Relationship Attitude and Moral, there is the advertising board to promote this in various kinds of format as brochure, leaflet, E-mail, VDO as well as the chat in several occasions during the Executive meet with employee session. In addition, the management acts as the role model to let employees aware of this and to support all practices to be in line with ethics and legal practice such as providing Code of Conduct, Power Delegation Manual, Ethics Training, to investigate the management work to ensure the work transparency, to follow up the work in every function / unit, to pay attention to society and environment such as to reduce wastes for both water and air which is released and polluted the society and environment, to help the agriculturers and government sectors to strengthen the living communities especially to provide knowledge regarding food which is the key strength of the company.
2. Sub-committee on strategic plan act as the facilitators to let the representative of the management from each function to exchange the information and mutually do the strategic plan for both short-term and long-term. The short-term strategic plan has the process as mentioned in Chapter 2 under the topic of Management Policies and Deployment. Sub-committee on strategic plan will set the time frame and the work procedure and will gather the information and summarize the relevant information to all involved people, and then to receive all feedback for further improvement of contents and procedure. When every party has committed to the strategic plan with the management team. There will be the follow up of the progress of short-term strategic plan on a weekly basis. In addition, the quarterly Performance review is required in order to find ways of improvement and solutions.
3. Sub-committee for customer orientation has the key responsibility to find out the customer need and behavior trend and to assess the organization status towards the customers in terms of engagement, satisfaction or dissatisfaction as per Figure 4-17 Customer Satisfaction Index. Moreover, the working committee has constantly done the investigation to gather all information about the market and the competition situation. The data processing and analysis of key findings have been done for further management's consideration and to design for the short-term and long-term strategic plan in order to create the competitive advantage as being the market leader for ready-to-eat food in the country.
4. Sub-committee for Measurement, Analysis and Knowledge Management play the role to support employees to take part in sharing idea and knowledge to the group they are interested in. The company has launched many recreation clubs such as Art Club, Photo Club, Music Club and to share all knowledges across functions including the information mutually improved such as Ant Mission Kaizen or to have the domestic or overseas work observation which all shared information have been kept in the web base to open the opportunity for any interested employees to study furthermore about it and to enhance more knowledge for better development. The sub-committee for knowledge management will also gather various performance data such as Finance, Marketing, Human Resources, Product, Organization Leadership, and the Storage Procedure Management for further improvement.
5. Sub-committee for People Orientation will support the Talent people to gain higher skills and knowledges in different area such as engineering, production, QA and R&D, etc. this will make them to be the key manpower of the company for further development of company growth. The company also provides the suitable method and relevant knowledges as per the company's required area. For example, the self-machine maintenance by the daily staff, the training course, performance evaluation, and reward giving will be implemented as the recognition and motivation. In addition, there is the program to return happiness to the employees by setting up the committee called "Happy work place committee" which comprises of 8 groups of sub-committee i.e. Happy Family, Happy Relax, Happy Money, Happy Soul, Happy Body, Happy heart, Happy society, and Happy brain. The key objective of this committee is to promote the happy work place, therefore the company will also conduct the employee satisfaction survey in order to develop those loyal employees.
6. Sub-committee on process management is responsible for design and improve the work process QWP and Work System QBP by using Lean to minimize the job duplication, reduce the waiting time and to move the unnecessary task by using the technology to deliver the effective and accuracy of data correctly, quickly and with high reliability.

In addition to the TQM committee, the company also deploys TPM to manage the work which will focus on the maintenance in a protection way. Since the company has the policy to deploy more of the automation

machines in order to replace the manpower which it becomes shortage more and more. The TPM committee has the Vice President as the President of the committee and has 8 different areas of sub-committee.

Each sub-committee will have the certain steps, development plan and monthly review to ensure that the policy has been efficiently implemented by Daily management. In addition to those 6 areas of sub-committee who mainly monitor the policy implementation throughout the company, the company also uses the Function management to handle all routine tasks. This function management is namely System Development Unit who will provide full system support such as ISO9001, ISO14001, and TIS18001 to make sure that the work process is complied with the work design and developed in a systematical way. Hence there is the “Ant mission” which is the small activity group to keep on work improvement, performance review, reward recognition, human resource training to enhance more systematically analytical & problem solving skill.

Chapter 4 status of TQM Implementation

4.1 Daily Work Management

After annual strategic plan & company goals have been set and distributed to the individual sector and each employee, the section manager will set up the Department KPI (KPI Lv.3) based on the company goals and then will determine the Daily management plan which all CPRAM employee must follow the standard practice based on IMS (Integrate Management System) which is the combination of Quality Management (ISO 9001), Environmental Management (ISO 14001) and Occupational Health and Safety Management Standard (ISO 18001). Another important system of the company is the Food Safety /HACCP/GMP which is the fundamental requirement for all employee levels in the company to meet it. This also includes other company activities in terms of problem solving, work improvement such as QCC, work improvement activities, 7S, TPM, Lean, Task Achieving in order to achieve work accuracy, speed and better performance and outcome. The examples are deploying IT system to replace manpower resource / RFID for logistics task, etc. The key objective is to meet the Department KPI (KPI Lv.3). After that the section will distribute the goal to the department level in order to determine the Daily Management work plan and to finally achieve the Corporate and Department KPI. Then there will be the follow up session by management, section manager and department manager on a monthly basis. This is to review and foresee any problem in advance and get it solved or protected in time, for example, there is the work follow up by TQM Board, my smart portal ,KPI webbase as per figure below :



Figure 4 - 1 Example of TQM Board

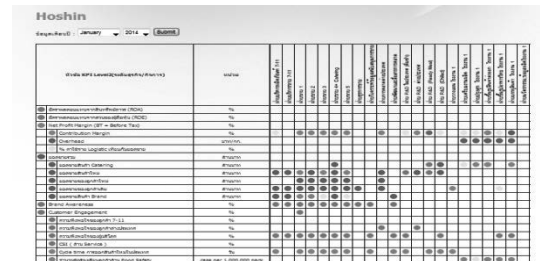


Figure 4 - 2 KPI webbase

The PDCA system will be used for continuous work improvement. By PDCA, the problem will be categorized into 2 types i.e. 1. Break Thought or Crisis Problem and 2. The routine problem. After the problem is successfully solved, the amended information will be further stored under the Success case and Knowledge Management system.

4.2 Cross Functional Activities

The organization structure of CPRAM is designed based on job functions and work suitability. The main structure is divided into Functional Team and Cross Functional Team.

The Functional Team will be considered based on task characteristics, policy and goal of the company while the Cross Functional Team will be formed up by volunteer employee in order to support the activity, project and various missions of the company. Currently there are total 29 cross functions teams. Both function and cross function team will be connected to goals and direction of company

The management has set up the criteria for performance review of the working team. The performance assessment process will be considered based on delivering the job as per company policy, goal, and customer orientation. There are 2 types of performance appraisal i.e. Functional Team Appraisal and Cross Functional Appraisal which is for both individual and team assessment. The aim of performance appraisal is to consider the relevant job promotion, provide more education & knowledge, job transfer, and give back the remuneration. For the Functional Team Appraisal, CPRAM requires 2 parts of evaluation which are the individual assessment and team assessment as per details below:

1. Individual Performance Appraisal: CPRAM Performance Appraisal system is designed from the consideration of task responsibility and then set up the appraisal criteria to be in line with the employee’s job description with the approval by the company central committee. The appraisal criteria for monthly employees are 1)

Core-Function Competency, 2) Time Attendance, 3) Company Goal, 4) SHE Score, and 5) Cross Functional Team which appraisal will be assessed by the line manager, colleagues and Cross Functional Team. And the feedback of work performance will be shared to the employees on a quarterly basis. This appraisal system will also connect to the work recognition, remuneration adjustment, annual bonus as well as the career path.

2. Cross Functional Team Performance Appraisal: The Cross Function Team will also have the annual work plan and will have the performance review on a quarterly basis by comring the performance achieved to the required criteria and the feedback of work performance will be shared to each team for further work improvement to be in line with the company policy and strategic plan. The result of the Cross Functional Team Performance Appraisal will be reviewed together with the individual work performance. This individual appraisal system will also connect to the remuneration management such as annual bonus, special bonus, staff promotion and succession plan as well as education and training, etc. Every year there will be the review of appraisal criteria in order to comply with the company goals & strategic plan which changes each year. This is to increase work motivation and to continuously improve the CFT system

4.3 Quality Circle Activities

CPRAM policies and strategic plans are distributed from top to bottom line of all staff levels. The level of distribution can be classified into 3 levels i.e.

1. Top management level: This includes Vice President level bottom down to Assistant General Manager of each office who will implement the Policy Management and plan for the long-term strategy.
2. Middle management level: This includes Section Manager level bottom down to Department Manager who will plan for the daily management to comply with the company strategic plan which is delegated by the top management.
3. Operational staff level: This staff level will perform the task by following all the required stardard including to keep on daily work improvement. By doing this, the operational employees will work together in small group which is the Cross Functional Team following the work format such as QC Story, Kaizen, TPM, Lean and Delegation of the company policy and strategic plan to all staff levels.

The top management is committed to build up motivation and give full support to all staff levels to make them keep continuing the Quality and Productivity Improvement based on QC Story such as Ant Mission. This starts from the announcement of policy setting work guideline for QCC small groups which is “The company aims for quality management throughout the whole organization by deploying the concept of TQM, QC Tools to support the Ant Mission system which helps continues the better work improvement and increases more corporate value to the company”. The Ant Mission activity comprises of the General Manager level committee who points out the policy and gives activity support. The Department Manager will take the role in launching the Ant Mission in the department and to distribute the Ant Mission campaign throughout the company by treating it as KPI of each department and will review the result of activity which are :

Tangible Result

The score from Ant Mission activity will be identified as each department’s KPI. The numbers of employees who participate in the Ant Mission activity keeps on continuously increasing. In 2014 about 89.5% (monthly staff + skilled staff) have participated inthis activity and the Ant Mission aims to reach 100% skill achievement.

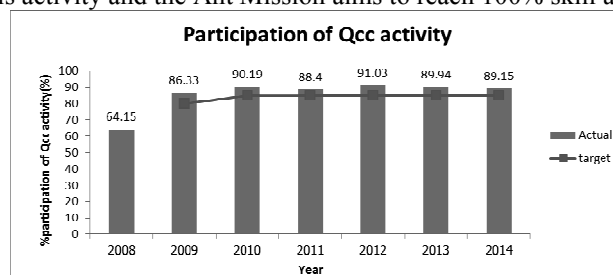


Figure 4-3 % participation in QCC activity (Ant Mission)

Intangible Result

The outcome of QCC activity is aimed for enhancing customer’s impression and job satisfaction according to the quality requirements (QCDSMEE) such as cost saving, productivity enhancement by measuring from the numbers of innovation in both internal and external awards.

Furthermore, CPRAM will push more effort and support to have their employees introduce the work improvement activities such as QCC Kaizen to compete with other companies. This is to find any new opportunity to keep on continuous work improvement for both domestic and overseas as per the Figure 4-4 and 4-5 shown below:

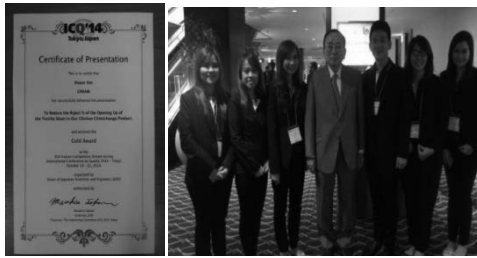


Figure 4-4 Presentation QCC project in Japan



Figure 4-5 Thailand Kaizen Award Golden class

4.4 New Product Management and Research Study

CPRAM is in the ready-to-eat food business which market competition is very intense. Therefore, the new products do play the huge impact to the company's revenue. During 2013-2014, the new products were accounted to 30% of the total sales revenue. That's why the research and development is very important. About 10% of the total monthly employees who have creativity and skill in research and new product design have a great relationship with customers. They are also the aggressive marketer. The investment in research & development was increased each year.

There are 2 definitions of "New Product" by CPRAM which are:

- 1.) The product which is never produced or sold before. It can be the innovation product or the product that is available or not available in the market before (unmet).
- 2.) The improved product which may be produced with the adjusted formula, new product look. However, this new product must meet the standard quality as per market demand, and must be superior to the competitors. In addition, it must be able to contribute the sales revenue to the company. The new product development of CPRAM will have high emphasis on Integration by the use of Concurrent Engineering, Parallel Processing which allows all involved parties such as customer, marketing, production, engineering, procurement, QA and partners to get involved in the designing and new product development stage along with all relevant stages including Supply Chain. The focus is paid since the very first stage of Consumer Need Survey and Analysis, the Capacity of Raw Materials & Packaging Suppliers, Packaging Design, Designing the Use of Raw Materials & Packaging, Capability of Factory, until the Distribution Stage.

In 2014, the factory production capacity is becoming full which causes the decrease in new products compared to 2013. There are 5 steps of CPRAM New Product Development as listed below:

- | | |
|---|---------------------------------|
| Step 1 Business Planning for New Products | Step 2 Prototype Product Making |
| Step 3 Pilot Scale Test of New Product | Step 4 Test Run of New Product |
| Step 5 Mass Production of New Product | |

In each step, the statistical technique is deployed for data analysis in order to get the accurate and reliable data summary. For the New Product Development, CPRAM uses both categories of statistical technique which are Descriptive Statistics and Inferential Statistics, for example, the statistical data for data management to identify the measuring value for new product height, to analyze the SD in order to identify the acceptance gap and to the laboratory statistical data to calculate the t-test to compare the difference.

Goals and Outcome of New Product Development

In order to get the effective tangible result and to keep on continuous learning and improvement of both short-term & long-term company strategic plans, there comes the process to identify the outcome from new products manufacturing in terms of Q (Quality : as required by consumer and % Defects), C (Cost), D (Delivery: Lead Time) and Sales of New Products. The success evaluation of New Products must be based on 100% achieving all required, the goals are not completely achievable yet and still need to improve the process for New Product Champion. CPRAM is moving forward to be the Innovative Organization which is going on under the Innovative Culture leading to the sustainable organization. There are several Innovation Awards which CPRAM continuous gains from time to time.

CPRAM Product Innovation means the creativity to produce new product or to improve better quality of new product with no need to use any high level of technology. The most important thing is to successfully respond to Consumer Need, Product Unique, Marketability and Sustainability. For example, the single pack of bun in Venting Pouch is designed to meet the demand of consumers who is speed and convenience oriented. Therefore, CPRAM developed the special formula of bun's flour along with the packaging improvement which offers convenience in microwaving purpose with no need to tear the pouch. And when it's warming for a certain minutes, the increase of food temperature will expand the air inside together with high pressure of steam which package will gradually grow with the air but not explode anyway. Some of the steam will be emitted from the Venting Valve and the leftover steam inside will keep the bun flour texture soft and yummy. CPRAM's research and development of this special kind of plastic and the package design of Venting Pouch which is specifically formulated to apply with the frozen read-to-eat food can be considered as the first producer in Thailand who firstly introduced this innovation venting pouch product. Please refer to Figure 4-6 Venting Pouch Product.



Figure 4-6 Venting Pouch Product

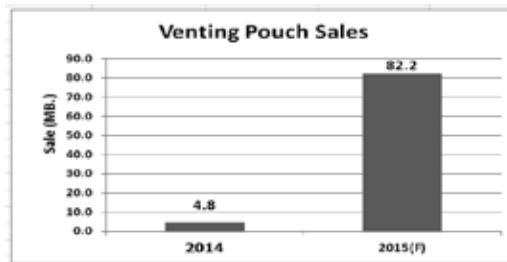


Figure 4-7 Venting Pouch Product and Venting Pouch sales

Research

Currently CPRAM is focusing on Basic Research and Applied Research) in order to encourage the creativity and new knowledge’s in order to drive the organization to new innovations and can utilize all relevant market opportunities in ready-to-eat food market. For example, to upgrade the quality and the standard of raw materials & packaging, the nutrition’s for each age gap and healthy food. This can enable CPRAM to upgrade their competitive level to be the sustainable market leader in a long term and can quickly and accurately respond to consumer demand especially in this globalization era which allows the economic integration of Asian countries called Asian Economic Community (AEC) and World Trade Organization (WTO). There is the CPRAM Research Road Map as shown in CPRAM Roadmap

4.5 Quality Assurance

CPRAM Quality Assurance has implemented the fundamental system required in food business such as GMP, HACCP, BRC, IFS, ISO9001 in order to standardize the product quality as per company’s requirement as well as the Environmental Management (ISO 14001), the Occupational health and safety management system standards (TIS18001). Currently CPRAM has integrated all these 3 standard system into one single integration management system which is called “CPRAM Quality Business Process”.

CPRAM identified the Work System and 34 processes of QWPs which QWPs will be reviewed on the annual basis by Business Process Committee as shown in Figure 4-8 Quality Business Process and to control each process by Operation Procedure (OP) as added into KPI of each OP and to identify the Quality plan format for each product category as per Table 4-1 Quality Plan for steamed products.

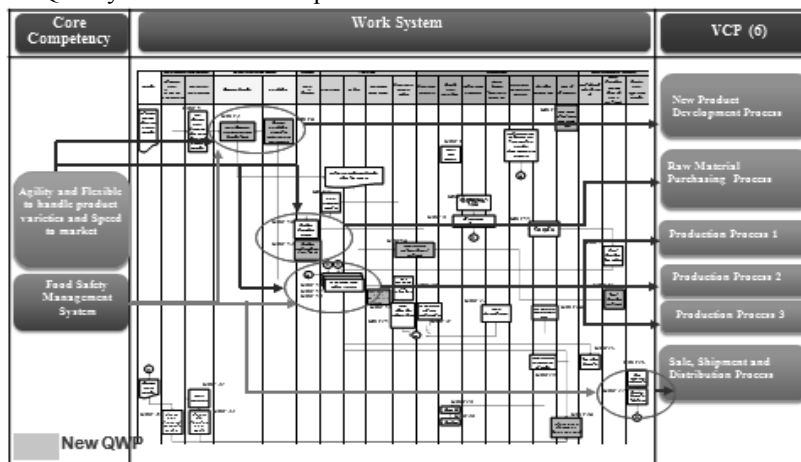


Figure 4-8 Quality Business Process

And QWPs will be used to identify the Quality Business Process to get the quality products in each category. Please see the example of the Quality Business process for steamed products below:

Table 4-1 Example of Quality Plan of Steamed product group

No.	Processing Steps	Description	Quality Control Point	Tools	Responsible department	Documents / Reference
1	Sample Request	- Received Sample Request from Marketing	- Check description included the detail of the Due Date		Marketing R&D(AGM / GM)	FR-MKT-03-01 FR-MKT-03-32
2	Designed and	- Considering the	-Plan the	Data	R&D	OP-QSS-02-01

	develop product	experimental design follow quality plans of product. And also Validation process in cooking step that is a CCP in worst case condition.	experimental to ensure product is match with customer needs and specification and also appropriate for production.	Collector Data Logger QFD SPC	(Section Manager/ AGM)	OP-RDC-04-01 WI-RDC-04-01,01/1,07,09,10,14 WI-RD7-09-##,WI-RD9-09-## SP-RD1-##,SP-RD2-##
3	Forecast / Order Confirmation	Sale Forecast / Sale Order	Sale Forecast 90 % of order		Marketing and Sales (AGM)	OP-MKT-03-01, WI-MKT-03-05

4.5.1 To cultivate the sense of food safety & service safety by Employee training & development .

There's an annual training plan which includes the Food Safety topic in the training course as well as the Product Handling topic which includes the right way of how to preserve, how to heat the food. This is educate the all levels of employees to offer the best quality of products to consumers and to prevent any problems related to quality and safety concern. All levels of employees here cover both Daily employee, Skill and Monthly employees based on each individual Direct group such as Production line team, Research & Development, Quality Control, Quality Assurance, Technical Engineer, etc. And the Non Direct group includes the marketing, sales, etc. The yearly training plan will require the pre-test and post-test which all employees must pass the required criteria.

4.5.2 Complaint handling and feedback

CPRAM has the complaint handling management system which can respond to all types of customers effectively and quickly. In order to meet customer satisfaction, the company pays high attention to handle customer's complaint effectively and within the suitable lead time as shown in the table below:

Table 4-2 Definition of customer complaint and response lead time

Level	Response lead time	Definition
Food Safety	24 hours	Products that caused harmful to consumers. Which are classified into 3 categories: - Biological means hazardous caused by pathogen microorganisms - Chemical means hazardous caused by chemicals such as pesticides, toxin. - Physical means hazardous caused by foreign body contaminants such as glass, stone, bone.
Food Quality	3 days	The quality of product dose not conform to customer specification and customer expectation
Service	3 days	Issues from delivery service such as manners, impolite, delayed.

CPRAM offers Web Based Customer Complaint / SMS as channels for acknowledge and response as quickly as possible and can pass to management team for review the case in a relatively real time. All customer complaints will be treated as Key Performance Indicator (KPI) in the organization level and section level. The performance review will be assessed on a monthly basis.

In addition, CPRAM was also honorably awarded the Consumer Protection Thailand Call Center Award 2014 which the Consumer Protection Certificate for Compliance with Consumer Protection Law was given by the Office of The Consumer Protection Board (OCPB). This award was offered to the company who has high responsibility to consumers.

4.6 Utilization of IT

CPRAM conducted the management system upgrade by deploying PDCA principle, Management by Fact, and Standardization. In every single work, CPRAM applies PDCA by implementing the moderning information technology to control and follow up the work performance as shown in Figure 4-9 : The flow of Data & Information technology system

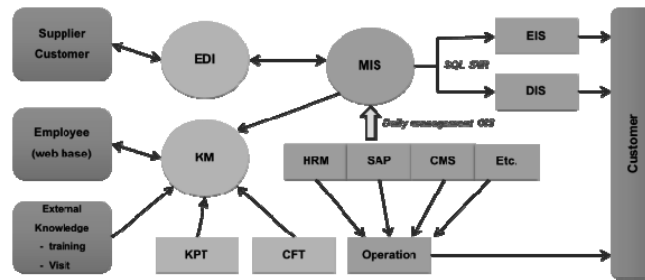


Figure 4-9 The flow of Data & Information technology system

CPRAM classifies the Data and Information Technology into 3 levels which are:

1. EIS: Executive Information System: to provide data and information technology for further follow-up on work performance at the organization level to support the CEO and top executive's decision making in accomplishing the strategic objectives.
2. DIS: Department Information System: to provide relevant information to facilitate the management of department. Such information is utilized by the management and supervisor of each department
3. OIS: Operation Information System : to provide relevant information including the operations work details to facilitate the investigation and control of each operation unit. Such information is utilized by the employees at operations level. The information used to investigate the daily work operations will be consolidated through 3 major work systems which are :
 - SAP system: this is the system used to support the daily work of factory line, sales and marketing, inventory and distribution as well as other supporting units.
 - CMS system: is the data consolidation of all customers' complaints.
 - HRMS system: is the human resource management system which gathers all employee data from each system

All data of daily work performance will be integrated into the MIS database under SQL server which facilitates the information technology and various kinds of report generation so that the executive management can utilize such data to monitor the work process whether it's done according to the strategic objective and the work plan or not. This is also used to support the decision making process as well as other new business innovations. Furthermore, there will be the Benchmarking to compare the work performance with other companies in order to create new innovations through KPT and CFT teams. Any accomplished projects will be gathered for further company's knowledge management center (KM). The information from the external sources will also be acquired such as the knowledge from overseas training, outsource training courses. All of these information will be kept into the same database system to provide the opportunity to all employees to access and keep learning from it for further innovation idea and plan. For the daily work standard, CPRAM deploys the IMS (Integrated Management System) ISO9001, ISO14001, ISO 17025, TIS18001, BRC, IFS to ensure that all work process are conducted based on the required standard as stated in the Operations Work Manual. This manual will be reviewed and updated every 2 years or any adjustment is required based on QCC, Kaizen.

Top management and the Information center will manage the information category and will identify the access permission of data for deliverers, customers and each employee level by giving the password to permit right of data access to each individual user based on different roles & responsibilities. The password control is managed on the Windows Active Directory. To ensure the data safety, the system will automatically remind to change new password every 3 months. There is the 24-hour Hotline service for any problem found related to the information technology. The Firewall is also installed for safety purpose in order to prevent any access from unpermitted user, any access through internet as well as the computer virus. The server and all network system will perform the update patch and anti-virus pattern in order to automatically protect virus for each daily system connection. In addition, any website access will be investigated by the Proxy Server which already records all information of individual user. At present, the work system is developed as the web intranet based which can be accessed through the company's intranet system. The management will receive the permission to log-in the company intranet from anywhere through the connection via SSL/VPN system.

The company network connection is designed to support any crisis situation. In such case, the main server is located in the computer center with ISO 27000 standard and the associate server will be in the company's server room. The network system is designed to connect with the key computer center through 2 network providers. In case the main server is encountering any problem, the system will automatically switch to another associate network. The percentage of Network Availability will be monitored and reviewed every month to ensure that the users can work on it all the time.

From the vision to be the business leader in manufacturing and distributing of ready-to-eat food and to gain customers' reliability, Knowledge Management is definitely the part of company's mission including the relationship management value and core corporate culture in working as a team to share knowledge and to make the company as the

learning and knowledge management organization. To accomplish this mission, the top management will provide full support by taking the major role model. For example, the President will arrange the broadcast live of his monthly speech, quarterly management review with the objective to share and exchange the knowledge between ready-to-eat food and bakery business and to invite other external guest speakers to share the valuable knowledge and experiences to CPRAM employees.

In the third quarter of every year, there will be the Company Strategic Plan & Review Session of the company. There is the knowledge sharing internally and will be the session to invite other external guest speakers to share knowledge on the economic, current social situation and other new innovations & technologies. All knowledges gaining from such internal and external sources will be consolidated as the database for further strategic plans which lead to both short-term and long-term plan, investment plan, manpower plan, and to identify the unmet knowledges. All of these plans will be implemented and taken into the accomplishment review in the third quarter of the next year.

The CPRAM knowledge management has been shared to different targets through different media channels as shown in Table 4-3

Table 4-3 Knowledge Communication channels

Types of Knowledge	Source of Knowledge	Department that analyzed and collected the knowledge	Knowledge sharing channels	Review frequency
Market Customer and Competition	1. Seminar 2. Internet 3. Benchmarking 4. International situation information 5. R&D 6. Code of Practice	-Marketing and Sales - Purchasing -R&D -IT	Intranet Meeting	Marketing plan and when it is need
Types of Knowledge	Source of Knowledge	Department that analyzed and collected the knowledge	Knowledge sharing channels	Review frequency
Innovation and Technology	1. Benchmarking 2. Competitor/Supplier 3. Exhibition 4. Seminar 5. Media & Magazine	-HR -R&D -IT	Meeting with relevant department/Training/Seminar/Magazine	When changes
Best Practice from QCC-CFT activity	1. Ant Mission 2. Kaizen 3. Business Improvement Project	-System development -Kaizen -Committee -BIP Committee	Show and Share	Annually
Knowledge from training/seminar	1. Training course 2. E-Learning	-HR	-Intranet -Self-Learning -library	When change
Work manual/ procedure/ work instruction	IMS (ISO9001,14001,TIS18001)	All	On the Job Training	When change
Knowledge for	1. Meeting/Seminar	-Purchasing	- Training and	Monthly

customer and supplier	2.Store visit	-Quality Assurance -Sales and Marketing	Workshop - Customer/supplier visit - Business Review with customer and supplier	Quatery Annually
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Success Cases Smart QA

The Information Technology (IT) has been deployed as the key principle & tool to develop the Quality Assurance system as well as Supply Chain Management system. This is by database management in order to facilitate the quick and effective communication and to minimize the unnecessary paperwork. To do this, it requires the start up from the format design and IT process improvement for the whole supply chain system.

Table 4-4 QA Projects

Stakeholder	Quality Assurance	Projects
CPRAM	Production System in CPRAM	1. Micro Easy Web
		2. NCR-Online
Transport Contractors	Quality Assurance in section of cold storage and distribution control	3. Truck Calibration Web
Customer	Complaint Handling	4. Customer Complaint Web

4.6.2 Innovation skill and technology development

Top management determines to make the organization sustainable with innovation by following these 3 guidelines which are :

1) top management will focus on vision, commitment and corporate core value and give full support to all employees to go in the same direction.

2) top management will emphasize on both short-term and long-term strategic plans, and will identify the risk assessment and plan for the scenario review for any key strategy in order to be prepared for any risk or change which may occur in the future. This can help to respond to the change quickly.

3) top management will take full responsibility in the business outcome and will drive the performance measurement and appraisal of every business unit in the company in a certain period of time. This is to point out the work performance and to find the opportunity for further work improvement as well as to improve the business process to work out more effectively in accordance with Kaizen system. In case the performance does not meet the required expectation, it will help the company to have it solved and corrected in time in order to keep everything on track that meets the standard business direction. Currently other external factors may have the great impact to current business. Therefore the modern business operator must be ready and prompt to adjust to any quick change of any situation. Therefore, CPRAM continues the non-stop development and innovation in order to be well prepared for any problem or change that may happen and to introduce the new innovation to meet customers's need and as well as to build the value for all stakeholders and make it a sustainable organization.

Since 2013, CPRAM has been moving forward to the new era of innovations and has the CPRAM Innovation Tree (as shown in Figure 2-2) as the Innovation Work Frame which comprises of 7 types which are :

1. Business Model Innovation : This is about the guideline for successful business such as "Free Education, Income while Studying, Work after Graduation"

2. Technology Innovation : This is about the technology development and improvement to meet new modern technology which can lead to great successful outcome such as "My Smart Portal project" which is the news and information center for personal work management.

3. Organization Innovation. This is about the plan for new company structure to meet utmost effectiveness.

4. Process Innovation. This is about the development to new and different process to enhance more work efficiency and effectiveness such as the improvement of food production process for the product category wrapped with seaweed.

5. Product Innovation. This is about the improvement of product quality in order to meet highest customer satisfaction and beyond their expectation such as "Grilled pork with sticky rice burger"

6. Service Innovation. This is about the service quality improvement such as the product distribution through provincial hub in each region.

7. Management Innovation. This is the work management to the change in any new work activity in addition to the routine corporate operations. This can be the financial innovation or marketing innovation, etc.

The top management will facilitate the prompt work flow by granting decision making authority based on the authority delegation manual. Hence the organization structure is designed with the flat pattern and the environment is facilitated for innovation idea and improvement. The environment with knowledge sharing oriented is focused for all employees to generate any new idea and creativity with the motivation reward program.

The winner will receive the rewards as the money and certificate. Moreover, CPRAM will send that innovation project for the competition at the national level such as the competition held by the Association of QC Headquarters of Thailand, the Department of Industry Promotion, the Technology Promotion Association (Thailand-Japan), and The International Exposition on Team Excellence (IETEX) as the international level.



Figure 4-10 Winner of QCHQ from The association



Figure 4-11 Present QC Story project in Japan

CPRAM has the innovations from new creativity, new improvement of production process to meet the change of consumer need and continuous improvement of production process to facilitate more work convenience. In addition, the production cost has been decreased which helps drive up the revenue of the company. From the creativity and work concept of the determined employee who keeps on work improvement, it comes up with great product innovation which really meets the need of customers, consumers, users. From all the previous mentions, CPRAM is currently on the process of Patent Registration with the Department of Intellectual Property: Ministry of Commerce of Thailand. The Patent Registration covers all 16 product items.

This shows the varieties of CPRAM Improvement Activities and Innovations which provide the result in cost saving and increase in revenue more and more every year. In 2013, there was a huge cost saving and can boost up the revenue upto 885 million Baht as shown in Figure 4-12

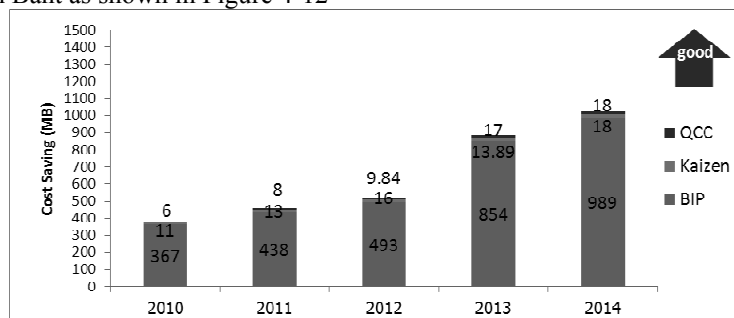


Figure 4-12 Cost Saving/Sales growth from Improvement activities and innovations

CPRAM has utilized all knowledges accumulated for the past 26 years of experiences in designing for the new factory and to use the world class technology for the factory in Plant3. This factory was designed to be run with the maximum automation system by deploying robotic arms for cover lid of package and for cooking method we invest on the greatest innovation technology call “Induction heat cooker” which can control temperature more accuracy than other method. By this superb technology we are leading ready to eat food industry to new era and can ensure the best quality and consistency of all products.

4.7 Human Resource Development

4.7.1 Improvement of manpower to respond with the future business challenge

CPRAM has identified the fundamental qualifications of employees from the management brainstorming workshop together with the consultancy from Hay Group which consideration will be based on the key factors in terms of corporate core value, culture, vision and mission to identify the required core competencies which comes up with 5 key competencies called ACIOT. ACIOT comprises of Achievement, Customer-focus, Integrity, Organisation-oriented and Team Work.

The Functional Competency required for each job position and other relevant skills will be identified by the immediate manager based on Job Description Analysis in accordance with ISO9001. This includes other required qualifications which have the impact to work efficiency such as personality, years of experience, transportation to work, human relations, etc. The identification of such qualification requirement will be distributed to all the involved units in order to be the criteria in employee recruitment and performance review as per the business direction of the company. In addition, those criteria will also be applied to the individual training plan and performance appraisal as well.

CPRAM has the certain recruitment process based on the consideration of required qualifications, skills and other special capabilities for each certain job position as needed in each business line based on employment type whether it's daily or monthly based. This is to create the compliance with the tasks & responsibilities, strategic plan and annual work plan which there is the greater demand of manpower expansion rate every year. Each unit must submit the request of additional manpower required to the Human Resource Department for further recruitment from communities of staff throughout the country.

In case of expatriate employees, CPRAM will recruit this group of employees through the legal recruitment process and strictly follow all the required legal procedure. There will be the learning course provided in 3-language media as the pre-requisite course of food production factory which are GMP, HACCP and Food Safety. There will be the support provided to all relevant employees to receive the fundamental knowledge with the support from the Bangkok Office of the Non-formal and Informal Education in order to enhance and upgrade the skills and knowledges of foreign employees to have the standard level of the basic education (primary level) which is the important basic knowledge required by CPRAM

Moreover in 2008, CPRAM founded Panyapiwat-CPRAM knowledge based center in the form of Dual Vocational Education. This is to sponsor those good credit score students but lack of financial aid to have the opportunity to take course in the Retail Mangement in Food Business through the project called "Free Education, Income while Studying, Work after Graduation" with the objective to drive more manpower with skills & knowledges in food business and to give a chance to those good score students but lack of money to continue further education and to produce the good skilled and quality resources to today's society.

The recruitment of daily employees is considered from the skill requirements which need the specialized skills such as technician group. There will be the direct contact to the local schools for the required job positions such as Pathumthani Technical College as well as other general work groups. CPRAM will also build up the network connection with the government sectors, community leaders such as Village Headman, Subdistrict Administrative Organizationn (SAO), this is for further references of any job application.

For the recruitment of monthly employees, it is classified into 2 sources. 1) Internal recruitment. The company will provide the development and offer career path to employees in terms of both education and training such as leadership skill training and management skill training. 2) External recruitment. CPRAM will consider based on the job need such as the Institute by the academic completion review whether it well matches with the requirement. By this way, every month CPRAM will announce for the job vacancies through the company employees as well as the employees under Charoen Pokphand Group. This is to offer the job opportunity to those resources who have their hometown in the local premise and can have the history reference enter into the employment process under the legal frame & requirements such as health check-up as required by FDAs Small Entity Compliance Guide and granting about 119 days of probationary period before making the job permanent as full-time employees. This is to allow staffs to adjust themselves to the company environment. There is the direction to retain new employees by the following retention plan i.e. 1) Employee orientation: This is for ice-breaking purpose to provide the basic knowledge of quality assurance as well as other systems in the company including attitudes, core values and organization culture which takes about 2 days training. Then, there will be the training on each work process at each business unit for 5 days. 2) Mentoring program. There is the mentoring project which the assigned mentor will closely support and provide consultancy to the new employee including the work guidance. 3) Coaching project. CPRAM will provide the coach to new employee. 4) Employee Clinic: The head of employee clinic will have a conversation and guidance to general employees such as work environment, general atmosphere, etc. Furthermore, there will be the exit interview for those employees who submit the resignation, the question guidelines will cover the attitudes toward the job in order to find out the reason of resignation and to bring out such information for further long term improvement. All of these can help CPRAM to retain those valuable resources and to reduce the overall turnover rate..

4.7.2 Resource development to be successor.

CPRAM has identified the leadership succession plan and there is the review process by the executives from both individual performance appraisal and team appraisal as well as the employee competency assessment. Such information will be brought out for further screening by the company committee who will recruit the leadership successor and employee in charge of succession plan of each business unit by considering the leadership and management skills for those leader or executive level of each business line and there will be the program arranged for leadership succession plan in order to assign the special task and assess the performance later on including the job rotation into the relevant business units in order to be prepared for the succession. Then the top management and line executive as well as the immediate manager will be the coach and mentor to provide guidance for being the good leader and skilled executive and to give the chance for on the job training in case of any absence of existing executive. This is to help build up the power of decision making before the performance assessment process. By doing this, the top management will conduct the interview to test the attitudes and assess the readiness before signing off the position to be Manager Trainee. In case this people development cannot be served in time, there will be the external recruitment. For the supervisory an operations levels, CPRAM has provided with the Career Path and Career Development Program in each position by classifying based on employee levels i.e. the operations level employee can have career growth as per

company's career path to the supervisory level within 3-5 years while those at supervisory levels will take about 6-7 years to step up to be the executive level. Anyway, the leadership skill will be taken into consideration as well as the people management will be reviewed and improved for further suitable succession plan management of the company. This really helps to enhance employee's morale and collaboration which will drive the company to accomplish the goals effectively and successfully.

4.7.3 The development of skill and happiness of employees

4.7.3.1 Skill development

CPRAM has the certain Career Path and Career Development Program for each single job position which is classed by each employee level from the Operations level to Management level as will be explained below.

The CPRAM Operations level has classified employees into 8 groups based on skills, expertise and capabilities. The committee will provide special incentive as motivation. The skill types of each job position are classified into 4 levels. Each employee level must pass the required standard of the skill & knowledge on production process, food safety and machines & equipments. The employees who pass the required criteria will be given the special incentive for each job position.

CPRAM has designed the employees' learning system to comply with the roles & responsibilities and suitability based on the training need. There are 6 channels to be considered:

1. Strategic plan, business expansion, and other policies of the company
2. Competency Base for both Functional Team and Cross Functional Team.
3. Law and trade regulations as involved by the company
4. Different business problems
5. Company business review and employees' performance appraisal in each quarter.
6. Career Path

After consolidating the Training need from all those 6 channels, the Training Road map will be identified for further annual review to find out the learning gap and to provide the relevant training to meet full staff with the training need which can enable them to drive up with successful business at the end. CPRAM has the learning channels as shown in Table 4-5

Table 4-5 Knowledge learning channels

Guideline	Method	Preview	Measurement
<u>Formal</u>			
1. On the job training	Demonstration of working Practice	- Basic Knowledge in 5 system - Working Process	- Pre/Post-test - Performance base on OJT
2. Classroom Training	Study in technical and theory	- Production Process 5 course - Learn Production - Food Safety 1-3	Pre/Post-test
3. Public training	The knowledge of the organization does not meet the requirements.	Reduction cost technique by MUDA MURI MURA	Project performance
4. Study trip/external visit	Study from Best Practice guidelines.	7s study trip	Project performance
<u>Informal</u>			
1. Morning Talk	internal communication	Productivity and quality daily talk	Performance
2. Mentor system	Coaching new employee	Teaching in each production line	Performance
3. Self learning - Library - Web Intranet	General knowledge Organization innovation	- Social Security include Benefits Welfare and insurance - Innovation bottlenecks	Performance

In addition to the people development, CPRAM also has the company leadership development plan by cooperating with the Enpeo Consulting Co., Ltd. in leadership training. There will be the procedure of taking all information into consideration including the Individual Development Plan (IDP) and the company's expectation in order to find out the gap of each leader and then to bring it out for form up the individual leadership development plan

based on appraisal result and to get the leaders ready for further business expansion by launching the “Change Management” program together with APM Group Co., Ltd. This is to identify the capability and such learning system will be mutually reviewed by the committee group who will consider the suitability whether it’s in line with the need of both company and employee on the annual basis.

Moreover, CPRAM also encourages the employees to be initiative and to create different kinds of innovation to comply with the company’s goal & mission for further skill and system development by using the new productive innovation throughout the whole supply chain. Therefore, it comes up with the skill development and enhancement of work environment to be the company of innovation culture by giving a chance to employees to introduce the idea for work improvement and to present it through the innovation activities to create innovator program in several levels i.e. company level, business level, national level and international level. Hence the innovation masterpiece of employees will be considered by the executive innovation committee as per the requirements of promoting the employees’ morale to any internal successful innovators. This reward is given to the honorable success of innovator and such the effective innovation creation will be involved with the performance appraisal, remuneration management and further job promotion.

CPRAM encourages the employees to apply new knowledges and skills to the job. The Human Resource Department and the Immediate Manager will have a mutual performance monitor and review. The immediate manager and the employees will have to set the mutual agreement on work expectation before going ahead with the training & development. In applying the knowledge gained into the real work improvement, the immediate manager takes part as the supportive role in project monitoring and performance review. After the passing the development period, the employees must prepare the manual for project report and the result from Web-Intranet project. This is for further storing as the knowledge management and knowledge sharing to other employees in different business units so that they can use it as the case study and learning for further quality improvement and delivering the performance based on the standard required by the people development process which will be taken into career path review, promotion and part of the employees’ performance appraisal and company’s learning system review and development plan in order to meet the key company goals, for example, the trainees must bring the knowledge learnt from the TPM activity which cover 5 core basic knowledges to share with the employees in operations level as well as supervisory level among employees in technical and production groups. The expertise in each type of skill will be selected to be the key trainer such as Transmission Electric Pneumatics Hydraulic Lubrication which CPRAM will provide the Model for human resource development as shown in Figure 4-13

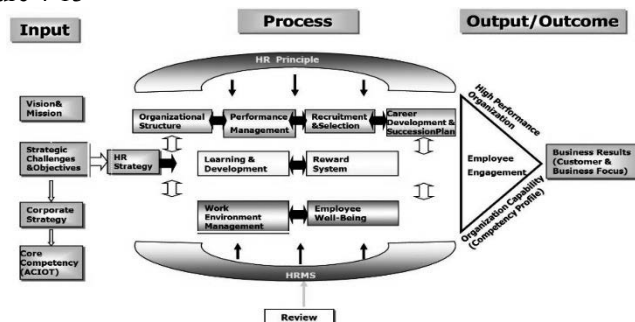


Figure 4-13 Model for human resource development

4.7.3.2 Happiness of employees

CPRAM and Nielsen, the Market Research Consultant has conducted the Employees’ Engagement and Satisfaction Survey which covers 9 areas i.e. 1) Company reputation 2) Vision and leadership 3) Professional development 4) Company’s performance and stability 5) Employee’s benefits & welfare (excluding salary and bonus) 6) Environment and readiness of the workplace 7) Internal working atmosphere 8) Work satisfaction 9) Performance appraisal and compliments for both daily and monthly employees. CPRAM has deployed the “Happy Workplace” activity originated by Thai Health Promotion Foundation to develop the happiness of employees in the company as shown in this Table below.

Table 4-6 Happy Workplace activities

HAPPY Workplace	Objective	Activities
Happy Brain	Encourage employees to develop their knowledge all the time from various sources. Knowing the skills to achieve progress in the work-life stability.	Library
		Kaizen Activities
Happy Body	Promote employee health and body and psychological stronger	The annual health check
		Sports Lovers Club (Yoga, Run, Badminton)

Happy Money	Encourage employees to save money to know the amount of the cost of their own and their families properly. Don't have excessive debt. There are savings to achieve financial stability.	Activities providing knowledge about the scorer household.
		providing knowledge training on the use of SVP And financial institutions
Happy Heart	Encourages generosity to society.	Activities for blood donation
		Visit employee that sickness
Happy Family	Encourage employees aware of the importance of family, honesty to create a strong and warming family.	Mother and baby lover photo contest
		Songkran festival
		Children's day
Happy Society	Encourage the unity, contributions to the communities where employees work and live in a society and a better environment.	Reforestation activities
		Plant distribution activities to the community.
		Handing of clean drinking water to the community Activity.
		CPRAM Junior Chef , CPRAM Wisdom Junior
Happy Soul	Promoting religious activities to encourage faith. Mined in lifestyle	Raise the Temple to CPRAM Activity
		Religious education classes
Happy Relax	Provide a better understanding of the elements to relax. The Life of creating entertainment room. Relax, reduce stress in the workplace	CPRAM THE STAR
		Songkran festival
		Loykatrong festival
		Music Club, Art club

4.8 Safety Health and Environment Management SHE(E) Management

CPRAM has implemented the Integrated Management System (IMS) which is the Total Quality Management which combines the Quality Management (ISO9001), the Environmental Management System (ISO14001), and the Occupational Health and Safety Management Standard (TIS18001) for the use as guidance to the Safety Health and Environment (SHE) work procedure of the company. The management system will start from the policy setting from the top management level and the SHE executive and working committee will be appointed to conduct the implementation of the SHE plan. After that, there will be the work performance review and appraisal which will lead to the on-going improvement and development to meet corporate goal as show in Figure 4-14



Figure 4-14 Safety Health Energy and Environment Management SHE (E)

From the above goals, the the Safety Health and Environment (SHE) policy has been put in written agreement and authorized by the company top management in order to identify the business direction and to announce to all employees for further acknowledgement and implementation. There will be the annual performance review in order to ensure the continuous development of SHE. The SHE committee comprises of 3 major sections which are Safety (S), Health (H) and Energy (E) + Environment (E)

The details of SHE activities are described below:

1) Safety implementation

The first step must start from the risk evaluation in order to find any possible risk of danger indicators may occur to the factory. The next step is to prioritize the risky problem based on the degree of danger in order to prepare the aggressive prevention and protection ways of any accident may occur. There are 3 protection ways which are :

1.1 to minimize the accidents by eliminating all unsafe machines or environment

This is to start from the procurement process of buying equipments or machines, the safety concern of machines must be taken into consideration such as Harm reduction card, Auto safety system, etc as required. The example of the improvement to provide staff safety is that there is the improvement in the production of lunch box lid. In the past, the staff has to manually close the lid of lunch box which makes staff get exhausted from this task as the staff has to reach

out for the lunch box from the assembly line. When repeating many times for a long period of time, it makes staff tired from doing the repeated tasks for long. Therefore, the machine has been used to cover the lid automatically instead of using the manpower.

1.2 to minimize the accidents by eliminating the unsafety job.

CPRAM has conducted the Job safety analysis in order to analyze each single step of job process to find out any danger may have caused to the employees and to come out with the protection measurement plan. All data analysis will be gathered up to be the Safety Work Manual. After that there will be the training to employees to be aware and follow the work manual. The immediate manager will take the role of investigation and control everything is conducted based on the work manual.

1.3 to minimize the accidents by encouraging the sense of safety concern to the employees.

This is implemented through training course and the SHE activities launched. CPRAM arranged 2 courses for SHE training. The first one is the General SHE training which is provided to the new employee and all office employees. The second one is the Special SHE training which is provided to staff based on the level of risk assessment as well as other relevant regulations. For example, the staff in charge of container cleaning has to touch the chemicals quite often. Therefore the safety training about the chemicals will be provided to staff so that they can perform the work safely. The training comprises of In-house Training by CPRAM’s guest speaker and the Public Training.



Figure 4-15 Training about Safety

For the supportive measurement, in case of any accident occurred, CPRAM will conduct the accident investigating by the Accident Investigation Committee in order to find out the cause of accident for further improvement and prevent from the repeated accidents in the future.

2) To promote the hygiene management.

To encourage all employees to stay healthy and safety and to have knowledge in hygiene management and can apply to the daily life with the company goal delegated as the target for the Occupational Health and Safety Management Standard as shown in Table 4-7

Table 4-7 The objectives of Occupational Health and Safety Management Committee

KPI Lv.2	CFT's team
% Employee Engagement	1. Employee complaint in food and canteen
- % ESI	2. GMP score of canteen
- % Employee Turnover	3. Pathogenic bacteria detected in canteen food
- % Worker Turnover	4. Pathogenic swabbing in dish/spoon
	5. hygiene score of employee dorm

CPRAM will arrange the training on food safety and hygiene cooking for all food vendors in the factory. After that there will be the performance evaluation of each vendor. The evaluated topics are :

- **Food quality:** There will be the random check of food quality and food containers in the factory’s canteen on a monthly basis. The microbe and bacteria must not be found. If it’s found, the company will immediately send the working team to educate about the required practice.
- **Hygiene of cooking area:** The working team will conduct the random check on vendor’s GMP (Good Manufacturing Practice) every month. For any vendor with excellent performance
- **Hygiene of factory area:** There will be the investigation team to check the hygiene and safety of any area related to staff such as staff dormitory, toilet on a monthly basis.

Conservation of energy and environment

CPRAM realizes the importance of energy preservation, sustainable usage of resources, impact to community and environment. Therefore the environmental preservation project has been initiated under the acknowledgement and approval from top management down to the engineering department and the Environmental Preservation Committee.

3.1) Environmental Project

CPRAM is encountering with 3 sources of pollution.

Water pollution: CPRAM deploys Activated Sludge (AS) to manage the water pollution issue. There is the expert team who is sophisticated specifically in waste water treatment and there is the monthly investigation of water pollution. With the cooperation from the waste water analysis expert, there will be the water examination of sample test

from various areas in order that the company can bring the result of the water analysis to find proper water treatment solution to meet the required standard value. In addition, the company will search for the most effective water treatment solution which can also help reduce the cost of waste water treatment. The automatic bacteria culture equipment has been used for biodegradable process in the equalization tank. This is the cost saving way as it can reduce the cost of chemicals used for biodegradable system (DAF), belt pressing cost, transportation cost, to reduce the odor problem in the factory and the community nearby. This helps reduce the cost upto 960,000 Baht per year.

Air pollution: The company used two steam boilers with the capacity of 5 tons per hour and one steam boiler of 8 tons per hour and the fuel oil grade A has been used as fuel. In order to prevent any pollution, the Cyclone system has been employed. And there is the person in charge of controlling the work of steam boiler together with the daily, weekly and monthly investigation. There is also the protection plan to prevent the air pollution on a quarterly basis. Moreover, in order to preserve the natural resources, the Fuel Saving & Emission Reduction equipment has been used to generate 10% reduction of the air polluted from the steam boiler as well as the fuel oil.

Waste Pollution: After the manufacturing process, waste materials are emitted from the factory which all wastes will be stored at a certain place before external emission according to the law & regulations. The waste treatment provider of the company is “Rahaeng Municipal District”. The waste control report is produced and the relevant public sector approval is requested in accordance with the required law & regulations. CPRAM has installed the Bio Gas system.

3.2) Energy preservation plan

The energy preservation plan focuses on the energy management system, the continued improvement of resource capacity utilization, the utmost utilization of energy as well as the alternative energy. Therefore, CPRAM launched the several projects with the aim to preserve the energy such as the light turning on-off by Photo Switch controlling system, air conditioner automatic control, air conditioner energy reduction (Happy Air project), Bio Gas project, Sludge from wastewater treatment processes can be used as the fuel for steam boiler, capacity enhancement of evaporation ozonic system. Air preheater before steam boiling.

4.9 Stakeholder Satisfaction

CPRAM values on the satisfaction of all involved Stakeholders which are those customers, employees, suppliers or environment.

4.9.1 Customer Satisfaction

CPRAM has the work flow procedures in terms of awareness, acknowledgement, demand and expectation from customers. This is to bring out the best improvement to deliver highest customer satisfaction as shown in Figure 4-16

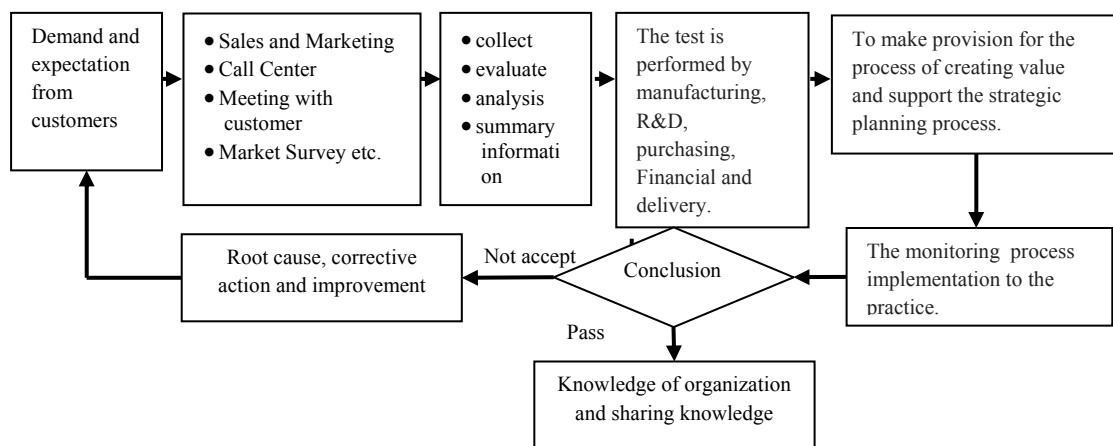


Figure 4-16 Work flow for improvement to deliver highest customer satisfaction

CPRAM uses the same channels of awareness, learning, expectation across all customer segments both domestic and overseas customers but the frequency and the level of meeting participants are varied in each customer segment. This enables CPRAM get the right and necessary information for further business planning. And it can be used for relationship management plan, marketing plan, framework for product development and strategy planning. This is to respond to different customer needs and to meet customer satisfaction which can bring to loyalty, customer retention and can build new groups of customers too. As a result the Customer Satisfaction Index (CSI) has been increased continuously through 2010-2014. When compared to the competitors, norm of retailing business, and norm

of Fast Moving Consumer Goods (FMCG), CPRAM can gain higher score of customer satisfaction as shown in Figure 4-17 Anyway, the customer satisfaction result in 2014 has not met the target yet and will be taken for further strategy review & improvement.



Figure 4-17 Customer Satisfaction Index

4.9.2. Supplier satisfaction

There's the sharing of vision, mission & commitment and the corporate value through the two-way communication for example, the Procurement Department will visit the key suppliers every year, the Supplier Business Review with the aim to ensure the same understanding as the key supplier and to get any relevant feedback for further mutual business improvement to deliver most satisfaction.

There will be the constant training arranged for suppliers under the topics of Productivity Improvement by the application of TPM and Lean system for all raw materials suppliers. In addition, CPRAM and Kasetsart University has launched the training course on Good Agriculture Practice at the role area of raw material which has been certified by Global G.A.P standard on the total area of 45 rais. And there is the Supply Chain Management Project with the participation from 22 Strategic Suppliers in 2014. From the Supplier Satisfaction Survey, it was found that the supplier satisfaction has increased since 2010-2014 as shown in Figure 4-18



Figure 4-18 Supplier Satisfaction Index

CPRAM, by the Corporate Sustainability Development Office, provide the training course for those transportation suppliers in terms of safety drive, engine check-up and annual eye check-up.

4.9.3 Employee Satisfaction

CPRAM and AC Nielsen, the leading market research company has conducted the Employee Engagement and Satisfaction Survey. The survey topics cover 9 issues which are Company reputation, Vision and leadership, Professional development, Business performance and company stability, Benefits & welfare (excluding salary and bonus), Physical environment conditions of the workplace, working environment in the company, Satisfaction towards the roles & responsibilities and Work performance and compliments for both monthly employees and workers (daily employees).

CPRAM has implemented the needed improvement as gathered from the survey result with the major objective to enhance employee's work life balance. As a result, CPRAM comes up with launching the new project called "Happy Workplace" in order to boost up employee's happiness. This project covers the 8 key happy workplace activities as shown in Table 4-6. These activities will be reviewed and the survey will be re-conducted every 2 years. From the table, the index showed that the satisfaction of both employees and workers tend to continuously increase and the average score is above the Asia Pacific norm.

In 2014, the percentage of Employee Turnover is less than the target which can maintain the low rate to be less than 1 % during 2010-2014 and the Turnover rate of workers has been reduced to 4.8 % in 2012. The decrease in turnover rate is in line with the increase of satisfaction rate as shown in Figure 5-3: Resources outcome

CPRAM has also deployed CSR-DIW system in the business which is another way of expressing social responsibilities which are classified into several areas i.e. Organization control, Human rights, Labor practice, Environment, Flexible business, Social development. CPRAM has provided many supports on social and community activities such as cultural & heritage activities, Health activities, or even the education support including education sponsorship to many schools and Panyapiwat knowledge based center. This is to sponsor those employee's children

who lack of financial aid to have the opportunity to study through the project called “Free Education, Income while Studying, Work after Graduation”.

The Social and Community Satisfaction Index can maintain its high level throughout many years and no Social and Community Complaint has been found since 2010 until now.

Chapter 5. Effect of TQM Implementation and Future Plan

5.1. Effect of TQM Implementation

5.1.1 Business sustainability perspective

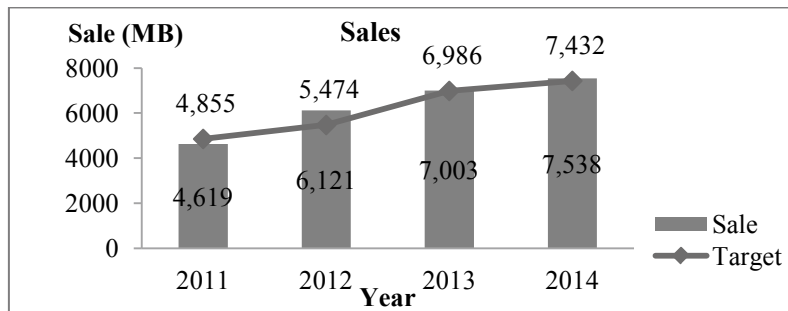


Figure 5-1 CPRAM Sales and Profits

5.1.2 Human Outcomes

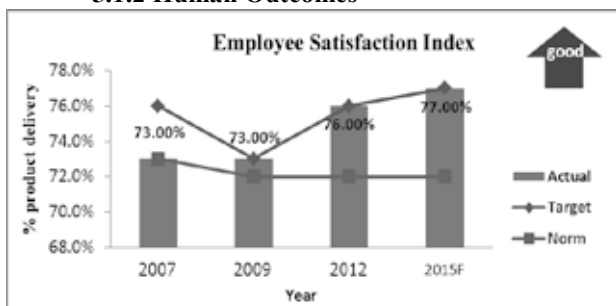


Figure 5-2 Employee Satisfaction Index



Figure 5-3 Worker Satisfaction Index

5.2 Future Plan

The company vision, commitment and mission will be consolidated for further Strategy Review & Planning on a yearly basis. After the plan is done, it will be distributed to each department and is used for further KPI setting at all KPI levels i.e. Organization level, Department level and Individual level. This is to encourage employees at all levels to get involved in the company strategy. CPRAM has the roadmap as the guideline to define both short-term (1-2 years) and long-term (3-5 years) direction plan. The plan is to be reviewed by the Office Executives from the TQA meeting on a yearly basis. The performance will be evaluated towards KPI every quarter by the Office Executives. If any KPI is found unmet yet, the Office Executives will provide the recommendations for further improvement.

Chapter 6 Senior executives' thought on TQM practices

CPRAM’s Top Management Interview: Mr. Wisade Wisidwinyoo Senior Vice president

The purposes of applying the Deming Prize

CPRAM has a true believe in Total Quality Management system (TQM) which definitely provides the great impact in terms of continuous and sustainable improvement. It’s found that Deming Prize is the reward program for the company’s TQM for the major 2 reasons which are :

1. it’s the world class reward that gains an international acceptance
2. CPRAM aims to be the global company

That’s why we want to apply for this in order to find any room for us to improve our quality to meet the global standard. We request for this reward in order to verify our system and to improve our whole company’s quality to meet with TQM standard at the global and international level like Health check Quality System of the company. Therefore, as we already passed the national investigation, it seems like we already passed both TQC and KANO Quality Award of Thailand. Therefore, today we want to keep on improving to allow those investigators of Deming Prize to implement the verification process if we can considered as the company with international management standard. If we are not qualified yet, at least we could gain the Opportunity for Improvement (OFI) which reward is just the side-benefits of our performance, but the key reward is enhancing the pride to everyone in this company.

The aims of TQM

The top goal is that we desire for happiness for everyone in the whole supply chain including ourselves. Whenever we implement the TQM, we will find less and less mistakes because everything is well planned. This makes us happy and not only us who are happy but everyone in our Supply Chain is happy from the very beginning process until the end of process. It's resulted from the communication and discussion, the right step was taken since the beginning with good planning. From my opinion, TQM will finally bring happiness to everyone in the company. But for me, the happiness is not limited to only us, but it spreads out to others in the supply chain. People in the past always said that the implementation of TQM will bring the sustainable ability and whenever the company is filled with happiness, the total supply chain will also have the sustainable happiness as well.

The current situations of TQM

The current TQM situation is almost ready as the heart is with the Cross Functional Team which enables the support and help leading to meet the company goal. Currently we are not able to completely make it as it also depends on the external factors such as we cannot do the accurate production plan as long as we have no information or have good relationship with customers, this blocks us from seeing the clear market picture as we are the manufacturer or supplier to the market. As a case study, we do require the good supply chain management from the start up step. We may think that the current situation of the company performance is pretty good but it still requires a big room for improvement which we need to learn new techniques from those successful players or models.

Individually describe his/her understanding of TQM

CPRAM has applied TQM approach into the business process across an organization for over 10 years. From my personal point of view, TQM is the very effective and fundamental management principle for the success of the business. It's something concrete and visible which facilitates more convenient and effective way of work. This includes the utilization of Fact and Data, Customer Focus, Process Oriented for example during the Thailand's economic crisis, CPRAM has actually overcome the crisis and continued to improve the business growth until now by the use of TQM principle.

Moreover TQM is considered as part of CPRAM-MS (CPRAM Management System) which is the integration system of TQM, TPM and Lean under the framework of CPRAM Culture and Values which both belong to CPRAM's management system.

TQM enables all employees to realize the concept of being customer-oriented, and to enhance satisfaction and value of both external customers and internal customers which are other departments. CPRAM also uses TQM as the guideline to set up the policy, business strategy and will share it to all employees in the top-down format.

I personally have full confidence and believe in TQM system due to the following reasons:

1. Everyone has the same understanding towards the same goal regarding what we actually do for customers and customers are not just the final destination but it's also the next process to deliver the smooth job and satisfied outcome to customers.

2. Error is minimized as a result of no utilization of what is guessed or anticipated. But the Fact & Data is utilized and everything is analyzed based on the feasibility and possibility. Therefore, this also involves the Process Oriented principle as part of TQM

Roles in promoting TQM

1. To facilitate all needed resources in order to encourage all employees to keep on effective work improvement.

2. To be the good role model in implementing CPRAM-MS for further continued business success. The employees can well apply what have been learnt from the role model to their everyday's work.

3. To identify the relevant policy which needs to be the eternal development aiming for being the World Class company. By doing this, there comes the need of 3 TQM steps. The first one is to stay beyond the Industrial Average. The policy is to do whatever delivers the best outcome. If it's under the Industrial Average, it's not yet the TQM. The second step is that after being above the Industrial Average, you must be the Best In Class. It can be whatever class such as labor issue, social CSR, etc. And the last step is to be the World Class Company which is to be the best in all classes.

Thoughts on the organizational strengths

1. Human resources : Our organization already has the great teamwork, skilled resources and the resources with innovation and creativity.

2. Effective communication : With good database management, we have applied the database management system into our organization which everyone can see and access to the same data which really helps with better communication between units and organizations. This covers all communication media and tools including Social Media, Group, E-mail, Smart Portal, Approval Reminder notices, etc. All of these are our strengths from the result of effective communication.

To achieve the great success in the future, there must be the effective communication, speedy and data accuracy throughout the whole supply chain process starting from the manufacturer until the customers.

CPRAM already has the great database system but still need to keep further improvement on the supply chain work management process.

Thoughts on the human resources development

The sustainable organization must be determined and creative to introduce the sustainable innovation. Throughout the past 26 years, CPRAM Co., Ltd. never stops any development but focuses on the continued learning & development especially on people development. All CPRAM employees will be provided all the relevant trainings such as Skills & Potentiality Performance Development, Management Skill Training, including How to work efficiently and happily across Cross Functional Teams which cover both internal staff and external parties which are those partners throughout the supply chain system. Currently CPRAM is moving forward to the innovation era which innovation culture is to be cultivated within the organization as below :

1. Innovation Culture

CPRAM needs to have the employees with great skills and knowledge, high work capabilities and business ethics share the brainstorming of innovation creation in all aspects in order to be the “organization with Innovation Culture” and the most important factor that harmonizes the heart of those skilled and great employees to work collaboratively and efficiently under the same company goal is the “CPRAM Innovation Culture” which is CPRAM’s uniqueness in terms of the valuable ways and practices treated to the society, organization and people individually. CPRAM people are ready to keep maintaining this great cultural heritage with CPRAM forever.

2. The pride of CPRAM Innovation Center and Chonburi Factory

CPRAM is considered to be the first private food center in Thailand. It’s the production place of innovators, the learning center and knowledge sharing to the society. There is the consolidation of all innovations contributed and gathered by CPRAM and to introduce in the form of exhibition and tangible simulations. Moreover, Chonburi factory is the most modern production factory of ready-to-eat food in Thailand which brings out all engineering knowledge management together with the overseas leading companies to mutually design the production line until it came up with the most modern automation production line in the world with highest effectiveness, hygiene, best energy-saving and environmental friendliness.

3. Thoughts on the organization’s social responsibilities

CPRAM joined the program of Corporate Social Responsibility, Department of Industrial Works: CSR-DIW in 2008 and brought out the useful principles to apply with the mother plan of various CSR activities.

From my personal point of view, CSR is the very important issue. All human beings in this world must have the social responsibility in order to be the good citizen. Therefore, CPRAM cultivates the sense of CSR to all employees and when all have the same understanding towards the need of CSR, there will be the driving of CSR power. For example, CPRAM implemented the project called “Happy Workplace” which is part of CSR management in term of employee treatment.

CSR is considered to be the big concern which does not limit only for the huge organization but even for one individual human being who has to live in this world must take CSR responsibility which belongs to everyone. What the company can do is to cultivate the sense of CSR to all employees by doing all activities in parallel with CSR objective.