

## IMPLEMENTATION OF ISO 9001: 2015 QUALITY MANAGEMENT SYSTEM IN PT TARUMATEX BANDUNG

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### **Abstract:**

The application of ISO 9001: 2015 becomes an important issue in line with increasingly competitive competition in the industrial world. The company strives to maintain its position and increase consumer confidence. ISO 9001: 2015 can be used as a tool to measure the company's credibility globally and improve the quality of company management and meet the demand for products and services according to the wishes of consumers. The research aims to find out how far the application of ISO 9001: 2015 as a Quality Management System is applied in a company, what benefits will a company achieve when implementing an ISO 9001: 2015 Quality Management System, identify problems and solutions and what steps companies must take in order to implement the Management System ISO 9001: 2015 quality can run well. The approach used is a qualitative descriptive method. The results obtained in the form of a recapitulation of the implementation of ISO 9001: 2015 in the company in the form of constraints and obstacles, evaluation and benefits obtained after implementing the ISO 9001: 2015 Quality Management System such as the division of authority and responsibilities of each division that is clearer, communication and response faster towards customers, continuous improvement and so on.

**Keywords:** Quality Management System, ISO 9001: 2015

### **A. Introduction**

The era of globalization requires many companies to improve the quality of products and services. The definition of quality according to Juran (1999), quality means product features that meet customer needs and thus provide customer satisfaction, and quality

means free from deficiencies, freedom from mistakes so as not to repeat work, customer dissatisfaction, customer claims, and so on.

Campell and Rozsnayi (2002) classify the concept of quality into several categories, including always trying to be the best (*quality as excellence*), not making mistakes (*quality as "zero errors"*), conformity of objectives (*quality as "fitness for purpose"*), focus on students (*quality as transformation*), according to certain criteria (*quality as threshold*), and improving quality in a sustainable manner (*quality as enhancement or improvement*).

ISO 9001: 2015 is a series of ISO 9000 series that provides guidance for implementing a quality management system. Different from other series such as ISO 9004 and 19011, ISO 9001 requires certification in the implementation of quality management systems in companies. Quality management system (QMS) is a formal system that documents the processes, procedures and responsibilities for achieving quality policies and targets (Sri Maharsi, 2000). SMM helps coordinate and direct the activities of the organization to meet customer needs and increase effectiveness and efficiency continuously (<http://www.asq.org>).

In its implementation ISO 9004 and 19011 always accompany the implementation of ISO 9001. The ISO 9001: 2015 quality management system is an international standard quality management system that uses a risk management approach in developing a quality management system (Antaresti, 2017). By implementing a quality management system, a company or organization engaged in the product or service sector has made a strategic decision, and helped the organization to improve overall performance and provide ample scope for continuous improvement.

Based on this consideration, the government has issued many regulations and regulations that encourage industry players to implement a quality management system, including Government Regulation No. 102 of 2000 concerning National Standardization Chapter III Article 3, National Standardization aims to:

1. Increase protection for consumers, business people, workers, and other communities both for safety, security, health and preservation of environmental functions;
2. Helping the smooth running of trade;
3. Creating fair business competition in trade (Government Regulation, 2000).

Minister of Industry and Trade Decree No. 108 / MPP / KEP / 5/1996 concerning Standardization, Certification, Accreditation and Quality Supervision Chapter III Article 6,

Certification Activities within the Ministry of Industry and Trade include Quality Management System, Product Certification, Test Result Certification, Technical Inspection Certification and Personnel Certification which implemented in accordance with SSN (Kemerindag, 1996).

Minister of Industry and Trade Decree No. 164 MPP Kep 6 1996 concerning Obligatory Quality Control for Certain Exported Products Article 1 Paragraph 1, For export products as listed in Attachment to this Decree, quality control must be carried out (Kemerindag, 1996). Decree of the National Standardization Agency No. 125 / KEP / BSN / 12/2008 Regarding the Establishment of Indonesian National Standards,

Table 1  
List of Establishment of 1 (one) Indonesian National Standards  
(Source: National Standardization Agency, 2008)

Sort	Number of Indonesian National Standard Number	Title of Indonesian National Standard
(1)	(2)	(3)
1.	SNI ISO 9000: 2008 Quality	management system-Fundamentals and vocabulary

BSN Decree Number 308 KEP 12 2015 Regarding Revision 2 (Two) Indonesian National Standards,

Table 2  
List 2 (two) Indonesian National Standards Revised Results Defined as Indonesian National Standards  
(Source: National Standardization Agency, 2015)

Sort Number	Indonesian National Standard	which is revised by the revised Indonesian National Standards
(1)	(2)	(3)
1.	SNI ISO 9000: 2015 Quality management system-Basics and vocabulary	SNI ISO 9000: 2008 Quality management system - Fundamentals and vocabulary
	Quality management systems - Fundamentals and vocabulary	Quality management systems - Fundamentals and vocabulary

	(ISO 9000: 2015, IDT)	(ISO 9000: 2005, IDT)
1.	SNI ISO 9001: 2 015 system - Requirements  Quality managementQuality management systems - Requirements  (ISO 9001: 2015, IDT)	SNI ISO 9001: 2008 system - Requirements  Quality managementQuality management systems - Requirements  (ISO 9001: 2008, IDT)

With the government policy, companies that are oriented to quality and sustainable company progress are required to implement the quality management system. There are many advantages to be gained by companies when the ISO 9001: 2015 quality management system is implemented, for example as explained in clause 0.1 General, ISO 9001:2015 (*International Organization for Standardization*, 2015):

- a. Ability to provide products and services that consistently meet customer requirements and applicable legal and regulatory requirements.
- b. Facilitating opportunities to increase customer satisfaction.
- c. Handling risks and opportunities related to the context and purpose.
- d. Ability to show conformity to specified quality management system requirements.

Broadly speaking, with this quality management system, companies implementing ISO 9001 have standards that contain requirements for quality management systems that help companies or organizations to be more efficient and increase customer satisfaction (*International Organization for Standarization*, 2015). Increased efficiency and customer satisfaction can lead to increased profitability of the company itself.

In line with this, the Indonesian Textile Association (API) encourages textile companies in Indonesia to increase efficiency so that production costs can be minimized and Indonesian textile products can be more competitive in the ASEAN region (Ministry of Industry, 2018). The Textile Industry is one of the 10 leading industrial commodity products in Indonesia because as one of the largest absorbers of labor in Indonesia (more than 1.3 million people directly) of the total workforce, more than half (600 thousand people) work in the garment textile industry which is also a labor-intensive industry and the contribution of textile products to the National GDP is quite significant, amounting to IDR 90 Trillion in 2007, although it had dropped due to the crisis in 2009 (MP3EI, 2011). Based on data from the

Ministry of Industry, in 2015 Indonesia was among the top 10 contributing countries for textile and textile product (TPT) suppliers, with a contribution of 1.8% for global textile integrity with export value reaching USD 12.46 billion (the figure is still below Vietnam) and in 2025 is targeted to contribute 4% -5% to world textile needs (Ministry of Industry, 2018).

Responding to API challenges, one of the leading textile companies in the city of Bandung, namely PT Tarumatex, is trying to follow government policies to implement and certify the ISO 9001: 2015 quality management system since 15 March 2017. This awareness is an initiative of companies that have the determination to continue producing products quality, have a good organizational culture, improve the quality of the workforce, high efficiency, increased productivity and profitability, provide satisfaction and increase consumer confidence through the implementation of a quality management system (QMS). ISO 9001: 2015 QMS provides many of these advantages if the company can implement it optimally. But in reality, on the ground, there will be many obstacles or difficulties when all components of the company try to follow it. For example, unequal distribution of knowledge among employees regarding ISO 9001: 2015, low perceptions, awareness and concern, and so on. Even though the ISO 9001: 2015 QMS demands the full and overall contribution of all company components to jointly implement the QMS as best as possible. Based on this, the study will conquer the benefits of the company when implementing the ISO 9001: 2015 QMS and its problems or difficulties. This study will also identify the extent to which companies provide solutions or strategies so that the implementation of ISO 9001: 2015 QMS can be optimally running.

## **B. Literature Review**

According to the *International Organization for Standardization*, a quality management system is a way for a company to control interconnected activities (both directly and indirectly) to achieve the desired results. The ISO 9001: 2015 is a series of ISO 9000 series. Every update from ISO 9000 is constantly revised in every series in response to changes in the global environment according to market conditions. The difference can be seen from the change in ISO 9001: 2008 to ISO 9001: 2015 in terms of (International Organization for Standardization, 2015):

### **a. Changes in Structure**

ISO 9001: 2015 uses "*High Level Structure*". *High Level Structure* consists of 10 elements (clauses). All ISO *management standards* use a *high level structure* with the aim of

facilitating integration. With *high level structure*, all definitions in management standards are the same.

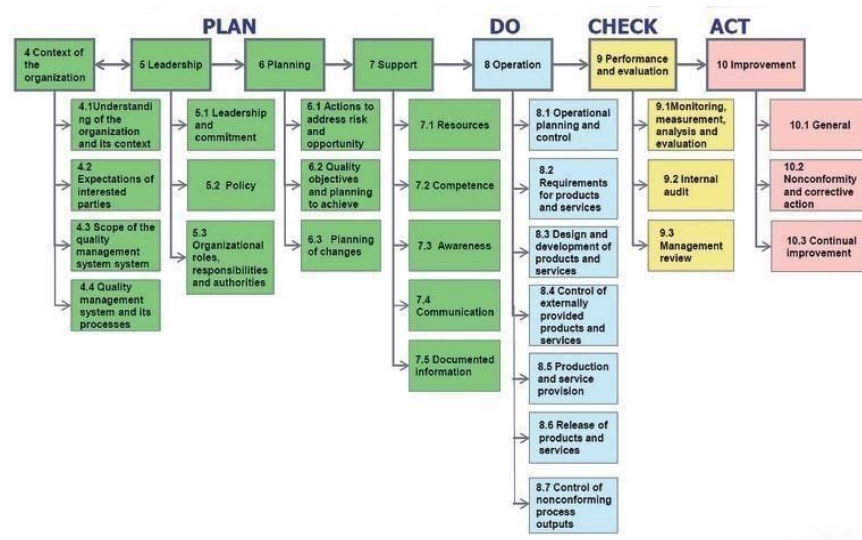


Figure 1. Structure of ISO 9001: 2015  
(Source: <http://www.sintegral.com>, 2015)

## b. Changes in Terminology or Terms

There are a number of terms from ISO 9001: 2008 that change or are not even used in ISO 9001: 2015 for various reasons, wrong only efficiency and generalization of definitions so that the implementation of ISO 9001: 2015 is more flexible for each type of organization.

Table 3  
Terminology or terminology between ISO 9001: 2008 and ISO 9001: 2015  
(Source: <http://www.sintegral.com>, 2015)

ISO 9001: 2008	ISO 9001: 2015
<i>Product</i>	<i>Product and service</i>
<i>Exclusion</i>	Not used
<i>Management representative</i>	Not used
documents, records	information is documented ( <i>documented information</i> )

Work Environment	the environment for the operation of the process
<i>monitoring and measuring equipment</i>	<i>Monitoring and measuring resources</i>
Products purchased	products and services provided by the external
<i>supplier</i>	external parties ( <i>external Providers</i> )

### c. Context of Organization

The organizational context is a new standard that existed at 4th clause ISO 9001: 2015, this clause introduces requirements relating to the organizational context, namely understanding the organization and organizational context, understanding the needs and expectations of interested parties, establishing the scope of the Quality Management System and the Quality Management System and Process.

The clause asks companies to understand the context of their organization and recognize risks that can have an impact on quality management system planning and identify opportunities that can be used to improve or develop a quality management system. The organization must determine the external and internal issues that are relevant to the strategic objectives of the organization. This clause also explains, ISO 9001: 2015 states that all clauses can be applied to all types of organizations without exception. Except for clause 4.3 ISO 9001: 2015 still allows exceptions provided that there is justification received.

### d. Stakeholders

The organization must identify the parties concerned and its requirements. Always renew and give responsibilities to the relevant sections for the identification of these stakeholders.

### e. Risk Based Thinking

ISO 9001: 2015 incorporates the concept of *risk management*. The concept of risk management in ISO 9001: 2015 is a major change. The term *preventive action* is changed to *risk management*. So that the requirements for preventive actions are eliminated in the ISO 9001: 2015 standard because the application of risk management is a preventive measure. The target of the management system is to achieve customer satisfaction and satisfaction. To that end, ISO 9001: 2015 company with a focus on performance-based thinking



approach to risk (*risk-based thinking*) and the concept of *Plan-Do-Check-Action* (PDCA). Risk as a unit that cannot be separated from the system is the view of ISO 9001: 2015. Through a risk-based thinking approach, organizations are demanded to be more proactive in preventing and reducing undesirable impacts and always making continuous improvements.

#### **f. Exceptions Requirements (Exclusions)**

major change of clause 1(*scope*) is no clause 1.2 of the application in ISO 9001: 2015. That is, all standard requirements or all clauses in ISO 9001: 2015 are general and can be applied by any organization, and do not look at the type and size of the organization or field of the organization / company.

*Exclusions* are no longer only on clause 7, but *exclusion* requirements can be applied to all ISO 9001: 2015 clauses. *Exclusion of requirements* is allowed with the condition that the company can provide goods and services that are in accordance with customer wishes (*will not result in failure of conformity of products and services*).

#### **g. (Documented Information)**

Documents and *records* (records) are replaced with documented information (*Documented Information*). *Documented information* includes *work instructions*, procedures, *quality plans*, and others. *Maintained documented information* must be made documents, such as *work instructions*, procedures, *quality plans*, and others. *Retained documented information* too must be available as evidence or record.

#### **h. Knowledge Management**

ISO 9001: 2015 includes aspects of control over *knowledge* organizational. *Knowledge management* must be managed within the organization. ISO 9001: 2015 does not require the existence of a *management representative* that must be formally appointed. Everyone, especially those in charge of every part of the organization has the same duties and responsibilities in implementing the ISO 9001: 2015 quality management system.

#### **i. Process, Product and Service Control from External Parties (*external providers*)**

External parties include *partners, suppliers or vendors*. Control of processes, products and *services* from outside parties include: purchasing from *suppliers*, cooperation with other companies (outside parties directly to customers), and *outsourcing processes*. Quoting from the *International Organization for Standardization* (2015) based on the interpretation of the



Integral Training and Consulting (<http://www.sintegral.com>, 2015) the structure of ISO 9001: 2015 consists of 10 clauses, namely:

#### Clause 0 Introduction

Adopting a quality management system is a decision which is strategic for an organization. The quality management system requirements listed in this international standard complement the product requirements. Information with a "note" helps to understand or explain the meaning of the relevant terms. This international standard can be used by internal and external parties, including certification bodies to assess the organization's ability to meet customer requirements, regulations (*statutory*) and legislation (*regulatory*) applicable to the product, and established rules of the organization. The quality management principles as stated in ISO 9000 and ISO 9004, are the basis for the development of this International standard.

This international standard suggests the adoption of a process approach in developing, implementing, and improving an effective quality management system with the aim of increasing customer satisfaction through meeting customer requirements.

#### Clause 1 Scope

This international standard sets out the quality management system requirements if an organization:

- a. Needs to demonstrate the ability to provide products that meet customer requirements and the laws and regulations that apply consistently, and
- b. Aims to increase customer satisfaction through effective application systems, including improvement processes system on an ongoing basis and guarantee compliance with customer requirements and laws and regulations.

All of these international standard requirements are general in that they can be applied to all organizations, whatever the type, size and product produced. If there are a number of requirements of this international standard that cannot be applied due to the nature of the organization or product produced, those requirements can be considered for neglect.

#### Clause 2 Reference Standard Reference

Documents below are needed for the application of this document. For dated references, only the edition cited applies. For dated references, the current edition is the latest edition of the ISO 9000: 2015 reference document (including changes), Quality management system (basics and vocabulary).

### Clause 3 Terms and Definitions

In this document the terms and definitions stated in ISO 9000 apply. If in the text of this international standard the term "product" is found, this term can also mean "service".

### Clause 4 Organizational Context

#### 4.1 Understanding the Organization and Organizational Context Organizations

must determine internal and external issues that are relevant to the objectives and strategic direction that can affect the ability to achieve the desired results of the quality management system. The organization must monitor and review information about issues internal and external.

#### 4.2 Understanding the Needs and Expectations of Stakeholders

Due to the influence or potential influence on the organization's ability to consistently provide products and services that meet customer requirements and regulations and legislation, the organization must determine:

- a. Interested parties relevant to the quality management system
- b. Requirements of the interested parties relevant to the quality management system

The organization must monitor and review information about these stakeholders and their relevant requirements.

#### 4.3 Establish the Scope of the Quality Management System The

organization must determine the limits and application of the quality management system to determine its scope. In determining the scope, the organization must consider:

- a. Internal and external issues that refer to 4.1
- b. Stakeholder requirements referring to 4.2
- c. Organizational products and services.

The organization must apply all the requirements of this standard if it can be applied within the scope specified by the quality management system

#### 4.4 Quality and Process Management Systems

The organization shall establish and implement, maintain and improve the quality management system on an ongoing basis, including the processes and process interactions required in accordance with the requirements of this standard.

## Clause 5 Leadership (Leadership)

### 5.1 Leadership and Commitment

Top management must show leadership and commitment to quality management systems. Top management must demonstrate leadership and commitment to focus on customers.

### 5.2 Quality Policy Top

management must establish, implement and maintain a quality policy. Top management must ensure that responsibility and authority for relevant roles are determined, communicated and understood within the organization.

### 5.3 Organizational Roles, Responsibilities, and Authority Top

management must ensure that the responsibilities and authorities for relevant roles are determined, communicated and understood within the organization.

## Clause 6 Quality Management System Planning

### 6.1 Risk and Opportunity Management

When planning a quality management system, the organization must consider the issues referred to in 4.2 and determine risks and opportunities. Actions taken to address risks and opportunities must be proportionate to the potential influence of the suitability of products and services.

### 6.2 Quality Targets and Achievement Plans The

organization must set quality objectives at the relevant functions, levels and processes needed for the quality management system.

### 6.3 Planned changes

When an organization determines the need to change its quality management system, changes must be made in a planned manner.

## Clause 7 Supporting

### 7.1 Resources

Organizations must determine and provide the resources needed to establish, implement, maintain and improve a sustainable quality management system. In determining the resources needed, the organization must consider:

- a. Capabilities and constraints of current internal resources;
- b. Things that are needed from external providers.

## 7.2 Competencies

Organizations must:

- a. Determine sufficient competence for people carrying out work in controlled conditions that can affect the performance and effectiveness of the quality management system;
- b. Ensure this person is competent based on appropriate education, training or experience;
- c. If possible, take action to obtain the required competencies, and evaluate the effectiveness of the actions taken;
- d. Keep appropriate documentation as evidence of competence.

## 7.3 Training

Organizations must ensure that those who carry out work under the control of the organization care for:

- a. Quality policy;
- b. Relevant quality objectives;
- c. Its contribution to the effectiveness of the quality management system, including the benefits of improved performance;
- d. Influence if it does not comply with the quality management system requirements.

## 7.4 Communication The

organization must determine the internal and external communications that are relevant to the quality management system, including:

- a. Matters to be communicated;
- b. Communication time;
- c. With whom to communicate;
- d. How to communicate;
- e. Who communicates is.

## 7.5 Documented Information

The organization's quality management system must include:

- a. Documented information required by this International Standard;
- b. Documented information that is determined by the organization that is necessary for the effectiveness of the quality management system.

## Clause 8 Operations

### 8.1 Planning and Operational Control

The organization must plan, carry out and control the processes (see 4.4) needed to meet the requirements for the supply of products and services and carry out the actions specified in clauses by:

- a. Establishing requirements for products and services;
- b. Establish criteria for the processes and acceptability of products and services;
- c. Determine the resources needed to achieve the conformity of product and service requirements;
- d. Carry out the control of processes in accordance with the criteria;
- e. Determine, maintain and store documented information to the extent necessary to ensure that processes have been carried out as planned and to demonstrate conformity with product and service requirements.

### 8.2 Determination of Product and Service

Requirements of Communication with customers must include:

- a. Providing information related to products and services;
- b. Handling requests, contracts or orders, including changes;
- c. Obtain customer feedback related to products and services, including customer complaints;
- d. Handle or control customer property;
- e. Establish specific requirements for contingency action if relevant.

### 8.3 Product and Service Design and Development

Organizations must establish, implement and maintain appropriate design and development processes to ensure the subsequent process of providing products and services.

### 8.4 Control of Products and Services Provided by External Parties

No organization can truly independently produce its products and services without the support of supplies from suppliers. In this highly specialized era, organizations always need suppliers to work on some of their products or services so that organizations can focus on their own expertise. And in order to be able to guarantee the quality of the product or service, the organization cannot ignore the supplier. Supplier failure (external parties) can be an organizational failure.

## 8.5 Production and Provision of Services

The core of all organizational activities is the production process or service process. The activity is the estuary of other activities such as process design, product design. This activity must be controlled so that what is determined in the design process and product design can be applied properly. This is the essence of the requirements of ISO-9001: 2015 clause 8.5: Production and service processes must be in a controlled condition.

## 8.6 Releasing Products and Services

Sometimes, exchanging products is one of the causes of shipping errors or production errors. For this reason, ISO-9001: 2015 requires that, if necessary, products are identified. The organization needs to provide identification for verification status and it is possible that the organization needs to identify the type of product, product lot number and others.

Besides identification, product trace-ability can also be an organization's needs. Trace-ability means the ability of a product to trace its origins such as when it was produced or when the service was performed, who the operator is, the material lot number and so on. This is necessary either because it is required by the customer or it can also be the needs of the organization to facilitate the tracking of problems that might occur. For this reason, ISO-9001: 2015 requires that, if needed (and usually always required), organizations must establish a registered identification system that can trace the origin of products and services.

## 8.7 Control of Non-Conforming Processes, Products and Services

ISO-9001: 2015 emphasizes efforts to prevent inappropriate products. But those times are bound to happen. Even the best organizations cannot avoid that. Preventing further losses is the best step that needs to be done. That is the essence of the terms of clause 8.7.

## Clause 9 Performance Evaluation

### 9.1 Monitoring, Measurement, Analysis and Evaluation

The organization must specify:

- a. Things that need to be monitored and measured;
- b. The methods of monitoring, measurement, analysis and evaluation needed to ensure valid results;
- c. If monitoring and measurement must be carried out;
- d. If the results of monitoring and measurement must be analyzed and evaluated.

The organization must evaluate the performance and effectiveness of the quality management system. The organization must keep appropriate documented information as proof of results.

## 9.2 Internal Audit

The organization shall carry out an internal audit at planned intervals to provide information on whether the quality management system:

- a. Complies with the requirements set by the organization for the quality management system and the requirements of this International Standard;
- b. Effectively implemented and maintained.

## 9.3 Management Review Top

management must review the organization's quality management system at planned intervals to ensure the suitability, adequacy and effectiveness of the quality management system that continues and is in line with the strategic direction of the organization. The purpose and objectives of the above requirements are to ensure top management conducts a study of the application of the quality management system.

The purpose of the management review is to answer the questions below:

- a. Suitable - is the quality management system in accordance with the desired objectives
- b. Adequate - is the implementation of the quality management system adequate?
- c. Effective - has the quality management system achieved the desired results?

Management reviews must be conducted periodically. Periodically for example per day, per week, per month, per quarter, per six months or per year.

## Clause 10 Improvement

### 10.1 General

The organization shall determine and select opportunities for improvement and carry out various actions needed to meet customer requirements and increase customer satisfaction.

### 10.2 Nonconformities and Corrective Actions

The organization must determine and select improvement opportunities and carry out various actions needed to meet customer requirements and increase customer satisfaction.

This must include:



- a. Making improvements to products and services to meet requirements including future needs and expectations;
- b. Making corrections, prevention or reduction of undesirable impacts;
- c. Improving the performance and effectiveness of the quality management system.

### 10.3 Continuous Improvement

Corrective action must be in accordance with the impact of the nonconformity encountered. If a discrepancy occurs, including that which results from a complaint, the organization must:

- a. Reacting to the discrepancy and, if applicable, take action to control and correct the discrepancy and deal with the consequences;
- b. Evaluating the need for action to eliminate the causes of nonconformities from reoccurring or occurring elsewhere by reviewing and analyzing the nonconformities, determining the causes of the nonconformities and determining whether similar nonconformities have occurred or potentially occurred;
- c. Taking whatever action is needed;
- d. Reviewing the effectiveness of the corrective actions taken;
- e. Updating the risks and opportunities that were determined during planning, if needed;
- f. Making changes to the quality management system, if needed.

Adopting a quality management system is a strategic decision for an organization. Many factors affect the organization in developing and implementing its quality management system, including organizational changes, environmental changes and risks related to the environment, certain goals to be achieved, products produced, processes implemented, and the size and structure of the organization (*International Organization for Standardization, 2015*).

International standard suggests adoption of a process approach in developing, implementing, and improving the effective quality management system with the aim of enhancing customer satisfaction by meeting customer requirements. To function effectively, organizations must establish and manage various interrelated activities. An activity or set of activities that use resources and are managed in an effort to allow the change of input into output is called a process. Often the output of a process

forms the input for the next process. One method that can be used in all processes is the "method *Plan-Do-Check-Act*" (PDCA) (<http://www.sintegral.com>, 2015).

The PDCA explanation is as follows (<http://www.sintegral.com>, 2015):

*Plan:* Determine the goals and processes needed to deliver results that are in accordance with customer requirements and organizational policies.

*Do:* Carry out the processes.

*Check:* Monitor and measure processes and products for policies, targets and requirements for products.

*Act:* Take action continuously to improve process performance.

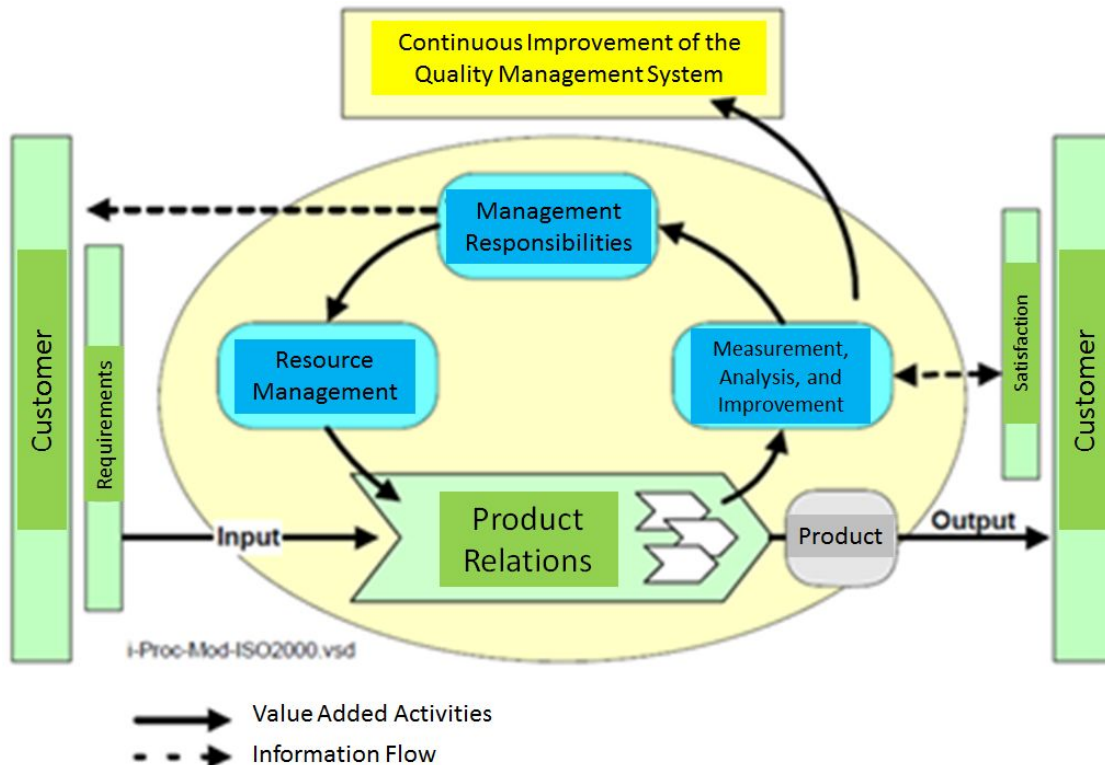


Figure 2: Model of Quality Management System Based on Process  
(Source: <http://www.sintegral.com>, 2015)

This international standard establishes the requirements of a quality management system if an organization (*International Organization for Standardization, 2015*):

- Needs to demonstrate the ability to provide products that meet customer requirements and laws and regulations that apply consistently, and
- Aim at increasing customer satisfaction through effective system applications, including the process of continuous system improvement and guarantee compliance with customer requirements and laws and regulations.

All of these international standard requirements are general in that they can be applied to all organizations, whatever the type, size and product produced (*International Organization for Standardization, 2015*). Because of its multi-industry nature, ISO 9001: 2015 can provide benefits for every organization or company that implements this quality management system. Low et al. in Tan Chin Keng & Syazwan Zainul Kamal (2016) classifies benefit the quality management system based on the research firms located in Singapore into two categories, namely:

1. Gain internal, such as communications companies are good, good documentation, working methods improved, improve the quality of work results, focus more on customer satisfaction, improved employee morale, improved performance, and increased efficiency and productivity.
2. External benefits, such as access to local markets, are more competitive, increase profitability, increase customer satisfaction, enhance good relationships with suppliers, and others.

According to Hadiwiardjo and Wibisono in Ramadhany and Supriono (2015) , companies that run a quality management system tend to show the following characteristics:

1. The existence of a philosophy that prevention is better than detecting, correcting, and producing results; at ISO 9001: 2015, risk becomes an integrated part of the overall system. Thus, the system becomes proactive rather than reactive in preventing or reducing undesirable effects through initial identification and action.
1. Consistent communication in the process and between production, suppliers and buyers; organizational communication is the sending and receiving of information in complex organizations, in which there are internal communications, human relations, managerial union relations, downward communication or communication from superiors to subordinates, upward communication or communication from subordinates to superiors, horizontal communication or communication from people of the same level in the organization, communication and speaking, listening, writing and communication evaluation program skills (Mahsun, 2006). External communication is communication that occurs between the company and outside parties according to Handayani (2001). The mistake most often experienced by companies is a misperception of the giver to the recipient of the information. Active communication can foster good collaboration to achieve company goals.

2. Careful maintenance of documents and critical control efficiently; Chew et al. in Mohammad (2000) states that ignorance or lack of a clear understanding of the fundamental requirements of documentation (both manufacture, maintenance and control) is a common cause of a large number of documents difficult to use and control.
3. Quality awareness of all employees, very high management trust; the lack of management commitment was one of the main problems encountered during Mohammad's implementation. Chew et al. in Mohammad (2000) states the reason for the weak awareness of quality is because of the lack of awareness of the benefits of the quality system itself. Tan (2010) observed that many top management companies do not place quality as a priority over time and cost factors.

All the benefits felt by the implementation of the ISO 9001: 2015 quality management system by each company will be different, this is due to many factors including (Tan Chin Keng & Syazwan Zainul Kamal, 2016):

1. Inability to change; inability to change is one serious problem that is mentioned by Chew et al. in Mohammad (2000). Halim et al. (1999) states that resistance from employees is a major factor that is a barrier to the successful implementation of ISO 9001 QMS because the operating and maintenance costs will be transferred to employees who must follow any changes made before certification. Therefore, this is a real challenge that companies need to face in implementing the ISO 9001 QMS.
2. The low commitment of top management; Tan (2010) states that many top management companies do not place quality as a priority over time and cost. Because of the lack of awareness of the quality and ignorance of the benefits to be gained.
3. Difficulties in interpreting quality management system standards and requirements; Abdul Rahim et al. (2004) suggested that quality system standards and requirements are difficult to understand. It is said that the ISO concept is too abstract and difficult to understand. Lee et al. (2001) state that translating standards into appropriate actions requires a full understanding of the concepts and philosophies behind ISO standards. Without full understanding and appropriate action, the required quality standards are difficult to achieve.
4. Increasing the number of working papers; Chew et al. in Mohammad (2000) states that ignorance or lack of a clear understanding of the fundamental requirements of documentation is a common cause of the large number of documents difficult to use and control.

5. Lack of training for employees; Chew et al. in Mohammad (2000) states that some organizations feel that what is meant by ISO 9001 is only documenting their quality system and ignores the importance of training employees. Low (1994) argues that lack of training among site staff causes them to rely heavily on quality managers who have a clear understanding of the ISO 9001 concept.
1. Weak supervision; this standard is used to ensure that the company has supervised and guaranteed all of its operations that will affect the quality of the products provided (Ramadhany and Supriono, 2015). So, if this is not done or not optimally done, the implementation of ISO 9001: 2015 QMS will not be perfectly implemented.
1. Weak communication; even though the importance of communication will be very vital to the successful implementation of ISO 9001: 2015 QMS. Suranto (2005) mentions several goals of communication carried out among fellow employees in an organization, namely sharing experiences and feelings, solidarity and cooperation, harmonizing work performance, avoiding twinning (multiplicity) work on tasks, promote harmony, discuss ways to overcome obstacles that arise, mutual correction to avoid mistakes and foster harmonious relations and partnerships
1. Lack of support from external parties; lack of participation from external parties during the implementation process. Even if there is support from external parties, carried out only to meet the needs of these external parties. Organizations are forced to implement ISO 9001: 2015 because they are demanded by their customers. If customers in this case external parties do not know and do not demand about ISO 9001: 2015 QMS, then the company usually does not have the motivation to implement it.
1. The low-quality system of design; Kam (2000) states that among the problems during the implementation process is the absence of well-structured quality systems and procedures. So that cost control and time are not supervised properly.
2. Lack of resources; Rohayah (2004) states that the lack of resources to implement and maintain a quality system is due to a low-quality work culture, lack of knowledge, and an inadequate level of learning. Lack of resources in terms of capital and human resources has caused delays in obtaining ISO 9001: 2015.

The problems that arise when applying the ISO 9001: 2015 QMS require a solution to handle it. Actually, the solution already exists in the ISO 9001: 2015 (QMS SMM clauses of International Organization for Standarization, 2015) both explicitly and in detail and general in nature. Selection of those solutions may be summarized inter alia through

Training, commitment and active participation of management on internal and external audit, supervision, monitoring, measurement, analysis and evaluation of the optimal, forming a feedback system, review meetings management, the approach of teamwork and communication, involvement of all employees in the process of documenting every information, always making quality a work and process orientation, positive responses to environmental changes, rapid responses to nonconformities and corrective actions and continuous improvement in both gradual or radical

### **C. Method**

The method used in this study is the study method the case with the method of data collection is in-depth interviews. Case studies are used by researchers to support their argumentation by means of in-depth analysis of both individual and group respondents, an organization or division of the project (Naoum in Tan Chin Keng and Syazwan Zainul Kamal, 2016). In-depth interviews are one technique that can provide opportunities to obtain data from respondents in the form of their thoughts, feelings and reactions to various problems (Boume in Tan Chin Keng and Syazwan Zainul Kamal, 2016). So this research is descriptive with a qualitative analysis approach.

In this research, the parts involved in implementing the ISO 9001: 2015 quality management system will be analyzed at PT Tarumatex Bandung. The focus of the research is on what are the benefits felt by each section at PT Tarumatex Bandung after the implementation of the ISO 9001: 2015 quality management system along with problems or obstacles and strategies to minimize these problems and obstacles. Refer to Low et al. in Tan Chin Keng & Syazwan Zainul Kamal (2016) *benefits* will be limited from aspects:

#### **1. Managerial improvement (clarity of job description)**

All companies agree that implementing ISO 9001: 2015 QMS in companies makes work more systematic. There are clear work procedures that all employees need to follow. In fact, each department can focus on their goals. Therefore, all employees have a clear understanding of their job descriptions in the company and this allows employees to work more efficiently.

#### **1. Improving the quality of communication**

As work has become more systematic, companies will find that communication among employees increases. Because everyone knows what their responsibilities are, work efficiently and know the referrals if they need help from another department. Clear

communication channels and information flow from top management can reach the employees well.

1. Better document control

Among the significant benefits of implementing ISO is a systematic filing system. Based on ISO requirements, all activities or work carried out must be recorded in the form of company standards. This is important as evidence if clarification is needed when problems arise and this minimizes the risk of non-compliance appearing. In addition, having proper documentation of all jobs allows employees to easily retrieve the files needed when needed.

1. Increased customer satisfaction

Customers trust more in the company's ability because they know that the company follows the procedures required under ISO 9001: 2015 standards. Where international standards are very *concerned* about customer satisfaction as its main focus.

1. Improve company reputation

Along with customer satisfaction obtained, the company can improve reputation because customers are satisfied with the company's performance.

1. Improving the quality of work results (minimizing waste and defects)

One of the characteristics of ISO 9001: 2015 is the existence of risk management, where prevention is the main focus. Preventive action is one of the keys to implementing the ISO 9001: 2015 QMS. This can encourage quality-oriented work systems by minimizing errors and responding quickly to non-conformities or improvements.

1. Company work efficiency (cost and time savings)

If implemented optimally, QMS ISO 9001: 2015 will make the work system efficient. For example, well-documented information will provide information quickly and precisely so that decision making can be done better.

The divisions or divisions that will become respondents are:

1. Personnel & General Section



Responsible for coordinating, planning, directing and supervising activities related to employment, community relations, licensing and other fields that are general in accordance with policies and procedures that have been designated

1. Production Section

Responsible for planning, implementing, supervising and coordinating the activities of each section under his supervision, so as to achieve the specified production targets efficiently.

1. QA & QC Section

Responsible for assisting management in efforts to empower human resources, product quality and company work processes to achieve maximum levels of quality and efficiency

1. Marketing & Purchasing Section

Responsible for achieving efficiency & productivity in marketing and selling finished products and buying raw materials and *spare parts*.

1. PPMC Section

Responsible for planning, coordinating and overseeing the activities of planning production schedules and planning of raw material requirements for the Weaving Department.

1. Section *Plant Engineering*

Responsible for planning, implementing and supervising all activities of the plant engineering department so that repairs and maintenance of Diesel engines, Boilers, Compressors and electricity, workshops and vehicles run smoothly and are always ready to support the achievement of the expected production targets. The Finance & Accounting Department is not a respondent because it is not directly related to the external audit of ISO 9001: 2015 during certification.

## **D. Results and Discussion**

### **1. The Personnel & General Section**

a. Benefits obtained after the application of the ISO 9001: 2015 QMS

Personnel & General Section consists of the Personnel & General Manager, Personnel Supervisor and General Supervisor. In summary, this section is responsible for coordinating, planning, directing and supervising activities that involve the fields of employment, public relations, licensing and other fields that are general in accordance with

established policies and procedures. Changes after the implementation and certification of the ISO 9001: 2015 quality management system are seen in this section.

Previously, there were still unclear or overlapping responsibilities either internally or cross-sectionally. The quality management system ISO 9001: 2015 does not regulate idealism job should be handled by a particular section, but the ISO 9001: 2015 set up so that each part has documented information related responsibilities set out in the document. *job description* with the creation of *job description* a clear, then the responsibility can be well distributed in each section.

Internal communication is much better, the manager can immediately know the planning, reports and evaluations of work programs and important data in the Personnel & General Section because all is well documented. Likewise, communication between parts becomes better with the forms as evidence of interaction between parts makes the service between parts more satisfying and increases traceability in case of inconsistency.

Having documented information can also help in organizing neater records, so that internal document searches (such as employee databases, permit letters, building maintenance schedules, etc.) or external (invitation letters, applications, government decree letters, labor laws, and so on) it's easier and doesn't take long. Relationships with external parties, can be arranged and evaluated based on the agreement of each party by using documents as *evidence*, which previously still existed in the form of verbal communication without recording vulnerable to *miscommunication*.

#### b. Obstacles and solutions to obstacles in applying the ISO 9001: 2015 QMS

Section Personnel & General does not have significant problems or obstacles when applying the ISO 9001: 2015 QMS. The increase in working papers was initially considered quite burdensome because some of the programs and data in this section have not been documented. Over time the increase in the number of working papers is not really a problem because the *benefits* of documented information are far more felt than the negative impact of the increase in the number of working papers and their arrangement. The involvement of employees in the personnel & general sector is one of the reasons this problem does not provide too many obstacles, because the preparation and arrangement of these documents can be done together and distributed by each employee.

### 1. Production Section

#### a. The profits gained after the application of the ISO 9001: 2015 QMS

Production Department is responsible for planning, implementing, supervising and coordinating production activities, so as to achieve the specified production targets efficiently. There are quite a lot of personnel in the Production Department compared to other parts. The Production Department has a Production Manager, Head of Production, Preparatory Supervisor, Mechanical Maintenance Supervisor, Electronic Supervisor, Preparatory Maintenance Supervisor and Weaving Supervisor. The impact of implementing ISO 9001: 2015 QMS can be seen clearly in the Production Section. There are some improvements made, such as the division of quality control tasks in several units more clearly by coordinating with the QA & QC Section. Reinforce and always remind employees in this section to be able to know the details of the job description, as a help posted a job description in a place that can be seen by employees.

Record every plan, activity, discrepancy and events that are directly related to the production process so that documentation is more controlled and can improve healthy work communication internally and between departments. Efficiency can also be improved, because with the existence of documented communication and information, it is able to be traced to find nonconformities and to hurry up repairs easier and faster.

Each production process is also made a process requirement, so that control over product quality can be controlled. For example, by making work procedures and work instructions throughout the process and positioned to all employees concerned and posted on each machine or location that is easily visible. It is expected that maintaining the quality of processes and products can increase internal customer satisfaction (other parts related to the Production Department) and external (clients, customers).

#### b. Barriers and solutions to the application of the ISO 9001: 2015 QMS

In the Production Department, things that are sufficient to meet obstacles are low awareness and commitment from employees, low support from other parties. One of the causes of the low awareness and commitment of employees is the large number of employees or resources in this section so that sufficient time is needed for the socialization of the importance of awareness and involvement of all elements in the company in order to have a commitment in efforts to successfully implement the ISO 9001: 2015 QMS. Efforts are being made to continuously carry out socialization, personal approach and increase direct supervision of employees who do not yet have awareness and commitment. Training is also conducted regularly, both training related to SMM and improvement *soft skill* and *hard skill*. Another problem is external support, for example suppliers of raw materials that still do not meet the ISO 9001: 2015 QMS requirements because they are not certified. This

sometimes has an impact on the quality of the incoming raw materials and handling complaints that are less responsive. To overcome this, the company always invites and asks suppliers to work together to support the implementation of ISO 9001: 2015 QMS by making quality a process and output reference, further requiring suppliers to be obliged to ISO 9001: 2015 QMS if they still want to continue cooperation.

## 1. QA & QC Section

### a. Benefits obtained after applying the ISO 9001: 2015 QMS

Quality Assurance & Quality Control is responsible for assisting management in empowering human resources, product quality and company work processes to achieve maximum levels of quality and efficiency. This part is the part most highlighted by the ISO 9001: 2015 QMS. The QA & QC section, specifically the QA subsection, is a part that is very instrumental in the successful implementation of ISO 9001: 2015 QMS. The QA & QC Section consists of the Head of the QA & QC Section and the QC Supervisor. This section serves as a benchmark and reference for other parts in implementing the ISO 9001: 2015 QMS.

Many benefits gained by this section after the ISO 9001: QMS implemented. Making a job description becomes the first start of improvement where there are clear tasks and responsibilities between the QA subsections and the QC subsections. Even this section is responsible for controlling every document circulating in the company, so this section is required to have good documentation skills. This has a positive impact on how the filing works better and communication between sections increases because of the neat flow of information as a form of *evidence* through documented information.

As part of quality assurance, this section has a stake in improving good communication between sections and helping the Department *Marketing* to maintain healthy communication with *customers*, so that the *image* company's becomes better. For the QC subsection, almost the same as the Production Section, all processes of supervision and quality control of processes and products are properly recorded and recorded. This improves the way of work and the results of work better than before. For example, increased traceability when there is a mismatch and rapid response to improvements according to the process requirements and predetermined product requirements.

### b. Obstacles and solutions to obstacles in applying the ISO 9001: 2015 QMS

Based on the assumption that the QA & QC Section is a basic benchmark in applying the ISO 9001: 2015 QMS, this section is often visited by other parts for consultations regarding the

application of the ISO 9001: 2015 QMS. For many cases there was an understanding in interpreting this QMS. Sometimes there is a disagreement on the interpretation of the application of this QMS from other parts based on their respective points of view. So, to make the perception equal, a training schedule *upgrading* ISO 9001: 2015 QMS, internal and external audit, held a management review meeting and asked the top management to take an active role together.

## **1. Marketing & purchasing section the**

### **a. Benefits gained after the implementation of the ISO 9001: 2015 QMS**

Marketing and Purchasing Section are actually separate parts, but they are still closely related due to human resource factors that still double between these sections. The Marketing Department is responsible for getting orders, managing orders, planning marketing and sales, evaluating orders and maintaining communication with customers or getting new customers and encouraging the parts related to product procurement according to the order to work efficiently and productively. Whereas the Purchasing Section is responsible for managing the purchasing process effectively and efficiently.

The Marketing Department is headed by a Head of Marketing and the Purchasing Section is headed by the Purchasing Supervisor. With the ISO 9001: 2015 QMS, the job description is clearer, although in this case there are still multiple positions. Marketing and Purchasing Section is the part that most deals with outsiders, *customers* and *suppliers*. For the Marketing Section the improvement of good communication with customers has been regulated by the ISO 9001: 2015 QMS, for example by making regular customer satisfaction questionnaires, processing questionnaire data, evaluating and following up.

There are procedures and work instructions for the Marketing Department to maintain good relationships with customers and even find new customers. Handling complaints that have been systematically so as to accelerate the response of improvements in order to maintain customer satisfaction and enhance the company's reputation in the eyes of customers. Improved work methods by planning, reporting and evaluating marketing and sales that are more organized. Likewise, with the Purchasing Section, there are significant changes in the way things work, for example by making selection and evaluation *supplier* as a material for decision making in the purchasing process. This can improve work efficiency and purchasing effectiveness.

### **b. Barriers and solutions to the implementation of the QMS ISO 9001: 2015**

A fairly prominent obstacle in the Marketing Department is the lack of human resources involved in this section. So, there needs to be sensitivity from top management to see the needs of these resources in order to support the implementation of ISO 9001: 2015 QMS. Submission of additional human resources into a solution in the Marketing & Purchasing Section. Another issue is the adjustment of work methods that are slightly changed based on the demands of the ISO 9001: 2015 QMS. Some employees in this section are still unfamiliar with new work methods, because the old work methods are used to being done and are felt comfortable, although there are still shortcomings. Training is needed to increase awareness and commitment, because the ISO 9001: 2015 QMS is dynamic and requires responsiveness to environmental changes.

## **1. PPMC Section**

### **a. Benefits obtained after the application of the ISO 9001: 2015**

QMS Section PPMC or Section *Production Planning & Material Control* is responsible for planning, coordinating and overseeing planning activities or production schedules and planning for yarn raw material requirements for the Production Department. The PPMC Section has one PPMC Section Chief, PPMC Supervisor and Warehouse Supervisor. The implementation of ISO 9001: 2015 QMS has an impact in the form of improvements made in this section. For example, the revision of production plan documents that are more informative and can be flexible. Reporting that is *up to date* and ready to use at any time. Improved performance due to improvements in terms of documented information also has an impact on better internal communication between parts or between sections directly or indirectly related to the PPMC Section.

### **b. Obstacles and solutions to overcome barriers to the application of the QMS ISO 9001: 2015**

There are still the problems in the design of the quality management system for raw material and finished goods warehouse. One of the hurdles for the transaction out of the goods in the warehouse is solid, giving little time for improvement the layout of *lay out* the warehouse. The preparation of quality design is the main agenda in this section. Another thing that is still a problem is being able to trace the damage to goods in the warehouse which is still low so it is risky to get complaints from customers and other parts. Communication with other sections continues to be built along with improvements that must immediately begin to be done gradually.

## **6. Section Plant Engineering**

a. Benefits obtained after the application of the ISO 9001: 2015 QMS

Division *Plant Engineering* is responsible for planning, carrying out all repairs and maintenance activities of diesel engines, boilers, compressors, electricity, workshops and vehicles running smoothly and always ready to support the achievement of targets expected production. This section consists of Manager *Plant Engineering*, Compressor & Installation Supervisor, and Boiler & Diesel Supervisor. Some benefits of implementing ISO 9001: 2015 QMS can already be felt in the Section *Plant Engineering*, for example clear work descriptions, more regular documentation including planning and maintenance and maintenance schedules, recording improvements, damage history, daily reports and reports of non-conformities, internal communication and between sections that are more effective are supported by *evidence* because of the well-documented information. Along with the improvement of documented information it encourages more efficient and effective ways of working.

b. Obstacles and solutions to obstacles in applying the ISO 9001: 2015 QMS

In general this section does not really have serious problems at the ISO 9001: 2015 QMS implementation, obstacles that arise related to the application and maintenance are still relatively expensive, for example the high cost of certification of employees in the Section *Plant Engineering* such as recommended by the ISO 9001: 2015 QMS regarding some employees who must have certificates of expertise for certain jobs that involve maintenance and repair of machinery. Submission to top management for certification for employees is carried out in an effort to meet the set of ISO 9001: 2015 QMS requirements.

Below, there are summary of the results and discussion of the application of ISO 9001: 2015 QMS at PT Tarumatex Bandung.

Table 4  
Summary of Results & Discussion  
(Source: Author, 2018)

<i>Benefits</i>	Section					
	A	B	C	D	E	F
Managerial improvement (clarity of job description)	✓	✓	✓	✓		✓
Improved communication quality	✓	✓	✓	✓	✓	✓



Better document control	✓	✓	✓	✓	✓	✓
Increased customer satisfaction	✓	✓	✓	✓		
Improving the company's reputation	✓	✓	✓	✓		
Improving the quality of work results (minimizing <i>waste</i> and defects)	✓	✓				
Company work efficiency (cost and time savings)	✓	✓	✓	✓	✓	✓ ✓
<b>Problems &amp; Obstacles</b>						
Disability to change				✓		
Low employee awareness & commitment		✓				
Difficulties in interpreting quality management system standards and requirements			✓			
Increasing the amount of paperwork	✓					
Costly implementation and maintenance costs						✓
Lack of support from consultants & external parties		✓				
Low quality system design					✓	
Lack of resources			✓	✓		
<b>Solutions</b>						
Training		✓	✓	✓		
Commitment and active participation in management of			✓	✓		✓
Internal and external audit			✓			
Optimal supervision, monitoring, measurement, analysis and evaluation		✓				
Establishing a feedback system					✓	
Management review meeting			✓			

Team work and communication approach		✓			✓	
Involvement of all employees in the process of documenting every information	✓					
declaring quality as work orientation and process		✓				
Positive response to environmental changes				✓		
Rapid response to nonconformities and corrective actions					✓	
Continuous improvement either gradual or radical					✓	

Description:

A: Personnel & General

Section B: Production Section

C: QA & QC

Section D: Marketing & Purchasing

Section E: Part PPMC & Gudang

F: Plant Engineering Section

## E. Conclusion

The application of ISO 9001: 2015 QMS at PT Tarumatex Bandung is quite good, as seen from the positive changes in every part of the company after being implemented and certified. Some problems or obstacles that still occur are still in the reasonable stage as part of the implementation process in stages. The improvement process by implementing some practical solutions is still carried out with the supervision of the QA & QC section. If this continues with the involvement of each component in the company, the benefits of implementing the QMS will be felt optimally by the company.

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