

Implementation Model Quality Management System (IQMS) and Model Participatory Rural Appraisal (PRA) to Increase Performance Small and Medium Enterprise (SMEs) in Dili-Timor Leste

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Abstract: The research carried out by researchers was motivated by three things: (1) Implementation of the Quality Management System (IQMS) Model in small and medium industries in order to improve the quality of the products produced to truly compete in marketing both in local and global markets; (2) Participatory Rural Appraisal (PRA) model to empower regional communities in advancing regional small and medium industries involving community social institutions and Tais weaving groups, to support the Ministério do Comércio, Turismo e Indústria (MCTI) program, this is NGO Masin Roman Mundu (MAROMUN) (2006) has conducted research and identified the potential for SMEs to be established. The PRA method is important for regional communities in empowering regional industry as a disruptor for Small and Medium Industries. (3) The company's performance of small and medium industries (KIKM) must be carefully considered so that it can encourage employees to advance small and medium industries in Timor Leste. The research method used is qualitative and quantitative using questionnaires which can later be made according to the agreement of researchers and institutions. social community who work in the company in filling out the questionnaire created by the researcher. The results of the research show that the IQMS model, PRA model and small and medium industrial performance can improve quality and empower the community in: (1) Improving the quality of products produced based on ISO 9001:2015; (2) Involving the community in increasing the productivity of regional small and medium industries based on available raw materials; (3) Increasing the work performance of small and medium industries is very important in the progress of companies; (4) increasing the productivity of small and medium industries is the most important thing for manufacturing companies in their industrial processes. Based on these four results, four (novelties) were found, namely: (1) Product quality based on ISO 9001:2015; (2) Create a priority matrix for small and medium industrial activities developed based on opinion polls on the Supplier interface (I/F), Top Down interface (I/F), Community interface (I/F) and interface (I/F).) Customers are built according to the order of values starting from the largest to the order of smallest values, (3) The results of the research can increase production productivity based on the time that has been set up by the company leadership. (4) Production process activities can be improved based on materials and raw materials that have been provided by the company as a breakthrough and increase the productivity of Small and Medium Industries to achieve consumer satisfaction with the products produced by implementing the Quality Management system model (IQMS) and the participatory rural appraisal (PRA) model to measure performance through empowering small and medium industries as supporters of large industries.

Keywords: Implementation of the Quality Management System (IQMS) model, Participatory Rural Appraisal (PRA) model, Performance of small and medium enterprise (SMEs), Interface (I/F) Supplier, Interface (I/F) Top Down, Interface (I/F) Community and Interface (I/F) Customer.

1. INTRODUCTION

The aim of implementing the Quality Management System (IQMS) model and the Participatory Rural Appraisal model in an organization is to manage various activities with a systematic approach and continuously increase effectiveness in accordance with international standards that prioritize stakeholder needs. The main key to quality policy is achieving permanent satisfaction and stakeholder trust. Implementation Quality Management System (IQMS) defines how organizations implement quality management practices. Consistent implementation involves involving the community in developing small enterprise in the regions to meet customer and market needs. The implementation of IQMS and PRA is still dominated by large companies. There are still very few SMEs that implement IQMS, even though the reality is that large companies need the involvement of their suppliers to support the implementation of IQMS and PRA. Most suppliers are small and medium enterprise (SMES), so SMEs must be proactive in facing global competition and must be more efficient and effective to survive in the business environment. One way to achieve this is to adopt the principles of IQMS and PRA to be used as a battering ram for small enterprise in the region. Implementing IQMS can help SMEs to utilize their resources effectively and efficiently, thereby focusing more on market needs and expectations. Implementation in SMIs varies depending on size, resources, and quality experience. But there are at least 2 main problems, namely limited financial and technical resources, in this case Ministerio Comercio, Turismo e Industria (MCTI, 2019). The government itself has planned to provide facilities for Cooperatives, small and medium enterprise (SMEs) to obtain Timor Leste certification (IQTL). The granting of certification by the Ministerio Comercio Industria (MCTI) aims to make KSMES more competitive in facing the era of free trade for Timor Telecom, Telemor and Telkomsel. This facility is in the form of convenience in the process of easing the IQTL (intucão Para Qualidade Timor Leste) process, which includes the training process and assistance from the management side so that KSMES can reach standards (MCTI, 2019).

Based on the above, it must be realized that SMEs also really need to implement IQMS and also PRA as a support to obtain certification for the implementation of IQMS in order to survive in global competition and maintain quality. However, implementing IQMS to obtain certification will be very difficult for SMEs. So this research needs to be carried out so that SMEs in Timor Leste can implement IQMS and obtain certification.

The government manages the use of resources based on their local potential, including regulating regional SMES. The basis of SME activities in the regions is to involve the community in developing SMEs, therefore SMEs are an important foundation in the national economy, so the government needs to pay more attention to SME development. Expansion of employment opportunities is an effort to develop sectors that are able to absorb labor. Efforts to absorb labor cannot be separated from the factors that influence it, such as population growth, the number of university graduates increasing every year and the number of the workforce increasing, economic growth, the trade system being dominated by traders from other countries: China, Pakistan, India, Indonesia, Bangladesh, Vietnam and other countries. According to data from the Ministério do Comércio, Turismo e Indústria (MCTI 2019), small and medium enterprise in 14 districts play an important role in the development of Timor Leste's industrial and economic sectors. In 2019, home enterprise engaged in making wallets from woven tais, homan or wicker, etc. numbered 1,324, not including large enterprise such as Heineken and TL Cement, but of these SMEs are controlled by other countries.

Research proposes two models, namely the quality of system management in improving the quality of production management, while the participatory rural appraisal is how to empower regional communities to take part in developing regional small enterprise and increasing production productivity based on a priority matrix that leads to Production Development, Convective Advand Sustainability, Analysis Marketing, ISO and PRA systems that can integrate small and medium enterprise will be developed based on the order of highest raw materials to lowest raw materials through opinion polls of small enterprise in the regions. The implementation of these two models can combine the quality management system model and the participatory rural appraisal model, employee performance and improvement in the agricultural industry (including the bamboo industry, coconut oil, tofu and tempeh), the tourism industry, the fishing industry, the petrol and gas industry, the Tais weaving industry as a breakthrough small and medium enterprise in maintaining their products continue to exist in marketing. From this explanation, the Ministry of Industry has established the Autoridade Inspeção e Fiscalização da Atividade Económica, Sanitária e Alimentár, impreza Publica (IP) (AIFAESA) or the República Democrática de Timor-Leste (RDTL) with the aim of

control the product from outside. Aifaesa is to control products supplied from abroad, but has not yet carried out maximum control and the industry itself has not grouped small and medium enterprise that carry out their operational activities in Timor Leste, with the aim of supporting increased productivity of small and medium enterprise in Timor Leste. The AQTL government control agency established in 2015 has not yet optimally controlled the performance of all industrial activities, where it is necessary to increase human resources through training and employee exchanges, conducting comparative studies to other countries with the aim of improving performance and increasing work productivity for small and medium industrial output.

2. LITERATURE REVIEW

2.1. Implementation of Quality Management System (IQMS) in general

Implementation Quality Management System is a set of elements consisting of people, tools, concepts and procedures that are combined into one for a common goal that is implemented by the system. System characteristics consist of: (a) Components (Elements) are components of a system known as subsystems. (b) The system part (Boundary) is the area that limits one system to another / to the external environment. (c) The external environment is everything outside the system that affects the operation of a system. examples: Vendors, Customers, Owners, Government, Banks, Competitors. (d) The system connector (Interface) is a connecting medium between 1 subsystem and another subsystem. (e) Input (Input) is the energy entered into the system. In an information system, input can be in the form of: Transaction data, non-transaction data (for example notification letters) and instructions. (f) Output is the result of processing, it can be useful output (information, product) or useless output (waste). In an information system, output can be: information, suggestions or printed reports. (g) System goal (Objective) is a goal that a system wants to achieve. (h) Participatory Rural Appraisal focuses more on community involvement in increasing the productivity of small industries with the aim of improving the performance of small and medium industries based on human resources by implementing models that can ultimately satisfy consumers.

According to Fahmi Abu Al-Rub (2020) Quality Management System (ISO 9001:2015), revised version of the ISO 9001:2015 Standard, is customer focus, leadership, people involvement, process approach, improvement, evidence-based decision making and relationship management. The fact that customer focus has become a very important business issue became very clear when the Human Resource Institute (2004) conducted its latest survey of major issues impacting people management. It was found that European respondents ranked "Customer focused" and respondents. Since then, other surveys on issues such as leadership and innovation have supported the importance of customer focus in today's business:

- a. Organizational sources: data, facts, and figures collected from organizations, especially from frontline employees, or from online assessments and questionnaires by end users.
- b. Sources of experience: professional experience and judgment of executives and employees.
- c. Stakeholder resources: organizational values, concerns, and decisions of the people involved in the organization.
- d. Scientific evidence: findings from published scientific research on the concept of customer focus.

2.2. General Industrial Quality Concept

According to Lewis & Booms in Tjiptono and Chandra (2016) defines service quality as a measure of how well the level of service provided meets customer expectations. Based on this definition, quality. Services can be realized through meeting customer needs and desires and the accuracy of delivery to match customer expectations. There are 2 main factors that influence Service Quality according to Par-asuraman in Tjiptono & Chandra (2016), expected service and service that is felt/perceived (Perceived Service), identifying 5 Gaps (Gaps) in the Quality of Service Services required in services, the five gaps are:

- a. The gap between customer expectations and management perceptions
(Knowledge Gap)

- b. The gap between management's perception of customer expectations and service quality specifications (Standard Gap)
- c. Gaps in service quality specifications and service delivery (Delivery Gap)
- d. The gap between service delivery and external communications (Communication Gap)
- e. The gap between perceived services and expected services (Service Gap)

2.3. Characteristics of quality management systems

Quality management is an activity of supervising all activities and tasks required to maintain the desired level of excellence. Quality that is monitored is not only product quality but also the quality of the company as a whole. Starting from the quality of employees who work, process quality and environmental quality. IQMS performance factors are determined by a set of business performance indicators, competitiveness, financial and capital aspects, production processes, marketing and distribution. Exploratory factor analysis was conducted. Exploratory factor analysis revealed results from eight (8) main factors. These eight factors indicate the performance characteristics of IQMS in the ACFTA era, namely:

- Main competitors in terms of better design, cheaper, larger volume, more accessible.
- Factor 2 shows the production aspect, which includes the availability of human resources in the development of information technology, IT implementation in product advertising.
- Factor 3 shows the assessment of business performance, which includes business growth, profits, number of customers or work orders, and also sales volume.
- Factor 4 indicates negative competitors that reduce profits and sales volume.
- Factor 5 shows product development, which includes innovation and product diversity.
- Factor 6 indicates finance and capital, which includes sources of financial support or loans, loan levels, and trustworthiness of the banking sector.
- Factor 7 shows the marketing aspect, which includes opportunities for entry into international markets, and opportunities for participation in international exhibitions.
- Factor 8 shows the production aspect, which includes processing technology and procurement of raw materials at low costs.

2.4. Benefits of Quality in Industry

The advantages that the industry gets from providing quality goods are higher sales revenues and lower costs, which in the end will increase profitability and industrial growth. Industry that has better quality will provide better customer value. In this way the industry can retain existing consumers, attract new consumers, and divert the attention of competitors' consumers. This effort will ultimately be able to increase the total sales market share. Good quality that meets consumer expectations will provide industry with an advantage in setting higher prices which will ultimately lead to an increase in total sales which is an indication of market share growth. ISO 9000:2015 explains the basic concepts and principles of quality management that can be applied universally as follows:

- a. Organizations that seek sustainable success through the implementation of quality management systems.
- b. Customers seek confidence in an organization's ability to consistently provide products and services that meet their needs.
- c. Organizations seeking confidence in their supply chain that their product and service requirements will be met.
- d. Organizations and interested parties seeking to improve communication through a shared understanding of the vocabulary used in quality management.
- e. Organizations that carry out conformity assessments against ISO 9001 requirements.

- f. Provider of training, assessment or advice in quality management.
- g. Associated standards developers.

According to D.C. Montgomery in his book *Introduction to Statistics and Quality Control* (2019), quality in industrial systems is a basic factor in consumer decisions in many products and services. As a result, quality is a key factor that brings business success, growth, and improved competitive position. Quality in industrial systems is categorized into three aspects as follows: Quality of design and Quality of conformance.

2.5. Quality Awards in Industry

According to Eddy Herjanto, in his book *Operations Management*, quality awards are awards given to individuals or organizations that aim to encourage the implementation of quality management. Quality management here is a philosophy that integrates several main focuses, namely customer focus, work processes, profits, and sustainable production processes. As stated by Deming, in his theory of "14 points for management", it can be understood that the poor quality of a product or service is not the fault of the workers, but comes from a bad management system. Therefore, to gain customer trust and satisfaction, industry must improve its management system. One way is through a "quality awards program". A quality award is given by the government to a person (individual) or organization (e.g. industry, whether small, medium or large industry) which has contributed/taken corrective/development actions regarding quality, both in the management system and in the output produced. Meanwhile, the national quality award is a form of quality award given to each country.

One of the awards in the field of quality is the Malcolm Baldrige National Quality Award (MBNQA) which was launched on August 20 1987 by President Reagan which aims to promote quality awareness, recognize quality achievements by American industry, and publicize successful quality strategies. MBNQA is managed by the National Institute of Standards and Technology (NIST) USDC with support from the American Society for Quality (ASQ). (Eddy H, *Operations Management*). This award program is for profit-oriented business organizations, with 3 categories of manufacturing, service and small businesses, so government organizations are not eligible for it. (Vincent G., *Integration of Six Sigma into MBNQA*).

The purpose of MBNQA was created to promote awareness about quality, identify the need for superior quality, introduce the quality percentage of United States industry, and share information (publicize) about successful quality strategies and their benefits. One goal of MBNQA is to provide a model that demonstrates the understanding and improvement of quality management by continuously improving their self-esteem criteria. The Baldrige model is refined annually, with major improvements applied every two years. (www.texas-quality.org). MBNQA is administered by NIST with the support of ASQ, where Baldrige administrators believe the award's core principles format provides a framework for measuring excellence. The criteria used to assess an applicant's performance are divided into seven categories and provide strategic direction for the entire system. These categories are (1) Leadership; (2) Strategic planning; (3) Market and customer focus; (4) Information and analysis; (5) Focus on human resources; (6) Management process; (7) community empowerment through SME development; and (8) Business results. The Baldrige model can be seen in the image below along with the criteria contained in it.

3. METHOD RESEARCH

At this stage there are two things that the researcher will do, namely a literature review and a field study regarding community involvement in advancing SMEs as supporters of nation building in the field of Small and medium industries. The initial stage carried out in this research was a literature review. This literature review was carried out to identify gaps in research that had been carried out by previous researchers. Literature reviews are also used as a guide in solving problems and achieving research objectives. Literature reviews are taken from journals, books, publications and previous research. At this stage, researchers made observations of Small and Medium Enterprises (IKM). The aim of this observation is to obtain an overview of the system (input, process and output) carried out by the SMEs which are the object of research. Apart from that, it is also to find out whether the SMEs have quality standards to meet consumer expectations. The next stage is creating a questionnaire regarding the indicators that form the IQMS model. This questionnaire will consist of 4 (four) parts, namely SMEs demographics, Supplier interface (I/F), Top Down interface (I/F), Community interface (I/F) and finally the Customer (I/F) interface. The questionnaire is then distributed to SMEs (Industrial Survey) to obtain final results in the form of supplier

performance, SMEs performance and customer satisfaction. So that later we can know the extent of the quality that has been produced. After the literature review is carried out, the next stage is to identify and formulate the problems that will be solved in this research. The problem that will be resolved is how the implementation of the quality management system (IQMS) model can improve product quality in small and medium industries, how to implement the participatory rural appraisal (PRA) model in community empowerment through opinion polls of small and medium industries which will be developed, how to analyze and combine the implementation of the IQMS model and the PRA model that will be created will be able to improve the performance of small and medium industries in Dili-Timor Leste and how to increase the productivity of small and medium industries (IKM) in Dili Timor Leste. Analyze the two models created which will later be able to improve small and medium industries based on conditions in Dili-Timor Leste. The search for initial data here is to look for SME data which will later be suitable to be used as a research object as well as to carry out trials/application of the IQMS model and PRA model which will be successfully created later. After knowing the problems experienced by SMEs, several goals were set to be achieved after this research was carried out. One of these objectives is to implement a quality management system (IQMS) model to improve product quality in small and medium industries, implement a participatory rural appraisal (PRA) model in community empowerment through opinion polls for small and medium industries that will be developed, to analyze and combine the two IQMS models and the PRA model that will be created to improve the performance of small and medium industries in Dili, Timor Leste and increase the productivity of small and medium industries (IKM) in Dili, Timor Leste based on conditions which exists.

3.1. Model Development for SMEs Development

The quality management system model and participatory rural appraisal model in this research use the term I/F (Interface) which is a connecting medium between one subsystem and other subsystems Anonymous (2015). This link allows resources to flow from one subsystem to another. The output from one subsystem will become input for another subsystem through a link. Connecting one subsystem can integrate with other subsystems to form a single unit.

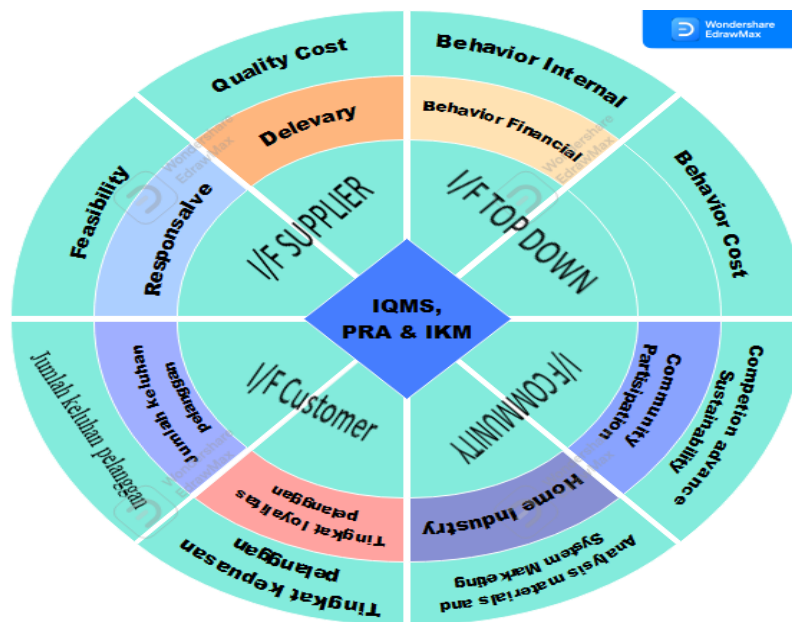


Figure 3. IQMS and PRA models for SMEs

4. RESULT AND DISCUSSION

The current IQMS model is in accordance with the process approach model in the ISO 9000:2015 standard. The image below shows the process model of ISO 9001:2015 consisting of four main parts covered in the ISO

9001:2015 quality management system standard. Therefore, the IQMS development design was carried out by referring to the existing IQMS model, which consists of Customer Requirements which then become input for the Company to carry out Measurement Analysis and Improvement, Management Responsibility, Resource Management, and Product Realization and the resulting output must meet the Customer Satisfaction.

The model development carried out (in order to meet customer demand) then added Interface (I/F) Supplier whose indicators consist of supplier compliance with materials ordered by the Company (both in terms of quality, cost and delivery). From a company perspective, a Company interface (I/F) was developed which contains indicators that involve employees (men) in setting direction and meeting customer expectations (improving control process, reducing waste, reducing costs, increasing market share, facilitating training and increasing morale/ work ethic). If all the indicators in the I/F Community have been fulfilled then the next step is to fulfill the I/F Customer which is the output of the Company (producing good products both in terms of quality, cost, fulfillment time, security and maintaining relationships with customers) so that it can fulfill the customer satisfaction. The IQMS and PRA indicators created to suit SMES (designed IQMS and PRA models) are as follows:

4.1. Interface (I/F) Supplier

- a. Implementation The quality of the material and performance provided is very good (S1)
- b. The price of the material provided is in accordance with the expected quality (S2)
- c. Material delivery time is always on time (S3)
- d. Suppliers always meet changes in quantities and delivery times from the company very well (S4)
- e. Suppliers always respond well to every complaint submitted by the company (S5)
- f. Suppliers always improve the quality of services and products delivered which are always implemented using the system (S6)
- g. Suppliers always maintain good performance and relationships with the company (S7)
- h. Suppliers always innovate materials (S8)

4.2. Interface (I/F) Perusahaan

- a. Company leaders always promote the implementation of product quality to consumers (P1)
- b. Leaders communicate and re-emphasize quality implementation to all employees (P2)
- c. The company always has information that is useful in improving the quality of products implemented with changes (P3)
- d. Planning for quality improvement is carried out very well and implemented (P4)
- e. Quality improvement always involves customers very well (P5)
- f. All employees are challenged in making improvements and reengineering the products produced (P6)
- g. All employees are trained in quality improvement skills (P7)
- h. All employees are challenged to make improvements and innovations to the products produced (P8)
- i. All employees are trained in quality improvement skills (P9)
- j. All employees are recognized in terms of quality improvements implemented with the system (P10)
- k. The company always motivates employees regarding the implementation of product quality towards consumer desires (P11)
- l. The company manages its implemented human resources (training, comparative studies, awards & recognition, health & safety) very well (P12)
- m. Customers are the main focus in process planning for producing products and services (P13)

- n. Companies control quality directly in producing goods and services (P14)
- o. The company also includes suppliers in quality improvement (P15)
- p. The company is always implemented with marketing, accounting, administrative services, in improving its processes to meet or exceed customer requirements (P16)
- q. There is continuous improvement in the implemented product and service processes (17)
- r. There is continuous improvement in support services (P18)
- s. There is continuous improvement in terms of suppliers (P19)
- t. The company always maintains good relations with customers (P20)
- u. The company always responds well to customer complaints (P21)
- v. The company always provides the right information to customers (P22)
- w. The company knows the indicators of customer satisfaction from the products it produces (P23)
- x. The company always makes improvements to errors in the delivery process (P24)
- y. The company always pays attention to customers in service (P25)
- z. The company always improves the quality of the products produced, implemented with modern conditions (P26)
- aa. The company always makes customers satisfied with products and services (P27)
- bb. The company always prioritizes customer satisfaction which is implemented with a marketing system (P28)

4.3. Interface (I/F) Community (PRA)

- a. People do not yet understand how to change semi-finished raw materials into appropriate products or finished goods (CM1)
- b. The community really needs the transformation of existing raw materials in order to develop regional SMEs as a breakthrough for national SMEs (CM2)
- c. The community really hopes for training to help improve home industry in the region (CM3)
- d. Community desires in the development of home industry that need to be improved (CM4)
- e. Community participation in developing regional SMEs based on the amount of raw materials available, namely from the smallest raw materials to the highest raw materials (CM5)
- f. The community is very satisfied with the development of home industry in improving small and medium enterprise to help regional economic growth (CM6).

4.4. Interface (I/F) Customer

- a. Customers are very satisfied with the quality of the products provided, implemented with consumer desires (C1)
- b. Customers do not blame the price of products from the company (always repurchase) (C2)
- c. Customers rarely complain about product delivery times from the company (C3)
- d. Customers always get products that suit their needs and are implemented with changes (C4)
- e. There is no product returned by the customer to the company (because it is defective or not according to the order) (C5)
- f. Customers always get products with the expected quality and also get the best service from the implemented company system (C6)
- g. Customers feel satisfied with the products and services provided by companies that are implemented with (products and services in line with customer expectations) (C7)

h. Customers always find product innovations from companies that are implemented with consumer desires (C8)

The indicators in I/F Supplier, I/F Top Down, I/F Community and I/F Customer are related to each other. One example of this linkage is if the quality of the material provided is very good (indicator S1) and company leaders always promote product quality to consumers (indicator P1), the public does not understand converting existing raw materials into products or finished goods (C1) then the customer will be very satisfied with the quality of the product provided (C1).

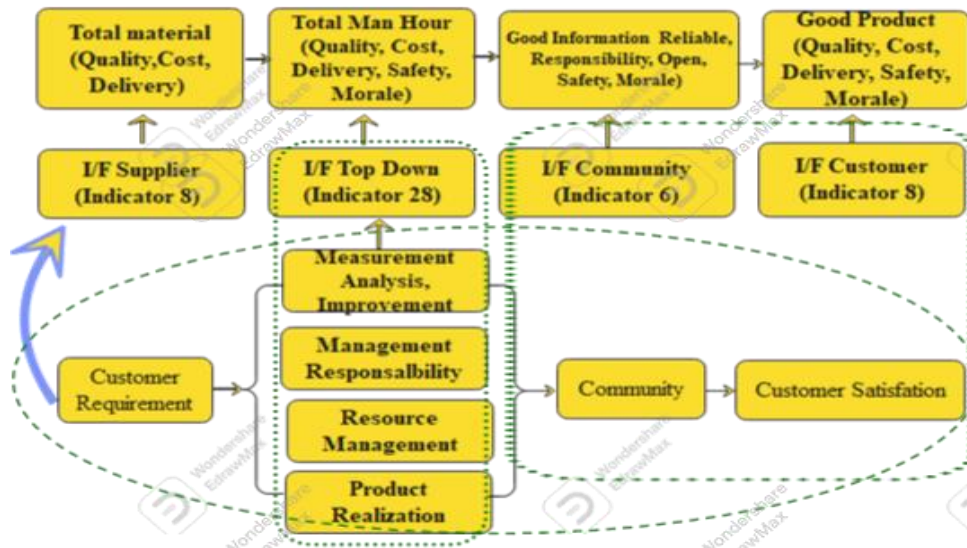


Figure 4. Development framework for the IQMS model and PRA model

4.5. Model IQMS and model PRA for SMEs

The IQMS model in accordance with SMEs consists of 4 variables, namely Supplier (I/F) Interface, Top Down (Company) (I/F) Interface, Community (I/F) Community and (I/F) Customer Interface. In each variable there are several quality management system indicators that must be met by SMEs so that it can be said to be an SMES that has a quality management system.

5. PRODUCTIVITY OF SMALL AND MEDIUM ENTREPRISE (SMES) DILI-TIMOR LESTE

After researchers conducted research on fifty SMEs spread across four Dili Sub-Districts, namely: Dom Aleixo Sub-district, Cristo Rei Sub-District, Vera Cruz Sub-District and Nain Feto Sub-District, they found several things related to decreasing productivity and increasing productivity, namely as follows:



Figure 5. Four Sub Districts in Dili District-Timor Leste

5.1. 23 small and medium enterprise SMEs spread across the Dom Aleixo area

The 23 SMEs spread across the Dom Aleixo area who were also respondents and 2 coffee milling SMEs, all activities from the milling to packaging process were carried out by local workers. 21 SMEs, namely furniture, bread or paderia, brick production, mineral water, are dominated by workers from outside. This shows that the products

produced are good where the workers mix with workers from outside, this shows that there has been an improvement in the product. produced and productivity and quality of work are the most important keys to the company's existence.

5.2. 11 small and medium enterprise (SMEs) spread across the Cristo Rei area

The 11 SMEs spread across the Dom Aleixo area who were also respondents and the 3 bread making/paderia SMEs, all the manufacturing process activities involved external workers as well as owners and sales were carried out by local workers. 9 SMEs, namely furniture, mineral water, brick production, skilled workers from outside, this shows that the products produced are good where local workers mix with workers from outside, this shows that there has been an increase in the products produced and productivity and Quality of work is the most important key to the company's existence.

5.3. Small and medium enterprise (SMEs) 9 which are spread in the Nain Feto region

The 9 SMEs spread across the Dom Aleixo area who are also respondents and 4 SMEs making bread/paderia, all the manufacturing process activities include external workers and at the same time as owners and sales are carried out by local workers. 1 SMEs producing virgen Coconut oil (VAO) is all done by local workers right up to marketing, 1 SMES making marble is all done by local workers, 3 SMEs namely furniture, mineral water, expert workers from outside this shows that the product produced It is good that local workers mix with workers from outside, this shows that there has been an increase in the products produced and productivity and work quality are the most important keys to the company's existence.

5.4. Small and medium enterprise (SMEs) 7 which are spread in the Vera Cruz area

The 7 SMEs spread across the Dom Aleixo area who were also respondents and 3 SMEs making bread/paderia, all the manufacturing process activities were carried out by external workers and at the same time as owners and sales were carried out by local workers. 1 SMES producing Tais Weaving is all done by local workers right down to marketing, 1 SMEs produces chairs, tables, rubber vascons all done by external workers and local workers, 1 SMES, namely furniture, skilled workers from outside, this states that The products produced are good where local workers mix with workers from outside, this shows that there has been an increase in the products produced and productivity and quality of work are the most important keys to the company's existence.

6. ANALYSIS OF TWO IQMS MODELS AND THE PRA MODEL FOR TIMOR LESTE SMES

After processing the data from the Top Down (Company) Supplier interface (I/F) indicator interface (I/F), Community interface (I/F) and Customer interface (I/F) and these two models, several SMEs were found. those who carry out their production process activities have met the standards but their development is not in accordance with the wishes of SMEs players where the development is not sorted based on the lowest amount of prime material to the highest material or raw material. So far, no research has been conducted on the classification of materials supporting the existing production process in the Democratic Republic of Timor Leste. After conducting research to find a lack of good cooperation between relevant agencies and also no cooperation due to real circumstances or conditions, it was found that there is still a lack of control by the government and other non-governmental organizations that also support the development of small and medium enterprise such as NGOs and INGOs. The public's desire for the development of small and medium enterprise is very high.

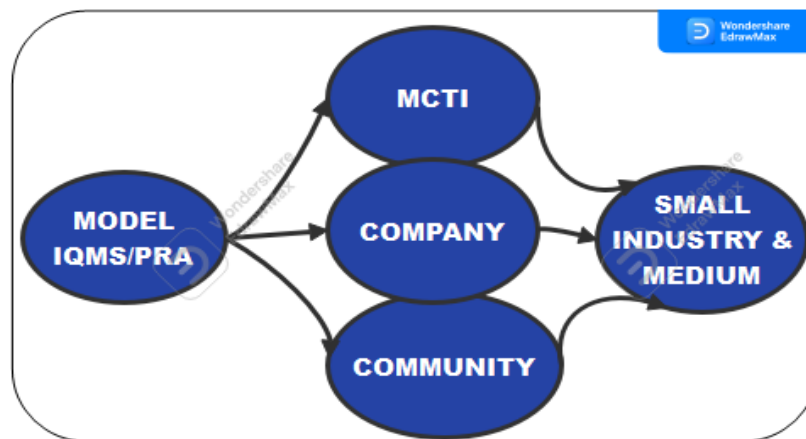


Figure 6. Model for SMEs Timor Leste (Source MCTI 2023)

Based on the model created by the researcher, it will be explained as follows:

1. The IQMS / PRA model created will help small and medium industry players develop their business properly.
2. Community groups or communities who have the desire to grow SMEs through empowerment.
3. Companies that work as community advocates in helping to provide direction on how to develop a good home-based business or home industry are to use existing raw materials to turn them into multi-purpose products.
4. Minitieriu Comercio Turismo e Industria (MCTI) acts as a facilitator and also conducts training for all small and medium enterprise to develop their business if MCTI gives credit to SMEs to develop their business. Small and Medium Enterprises as a battering ram for large enterprise and also as a supporter of the national economy.
5. After the 4-points have been discussed, then all companies managing Small Industry and Medium can carry out a continuous production process by paying attention to the quality of the raw materials selected as the material in Figure 5.2 Model for Timor Leste SMEs (Source MCTI 2023)

7. CONCLUSION

The conclusions of this research are as follows:

1. The problem experienced by SMEs in improving the quality of the products and services they produce is that they do not have good management (who understand the quality and service management system). This can be seen from the still low indicators S6 on the Supplier interface (I/F), P19, P3, P15, P18, P1 and P4 on the Company interface (I/F) (Top Down).
2. Low identification of raw materials in the development of CM1, CM2 and CM6 home enterprise at the Community interface (I/F), this is due to a lack of knowledge and human resources in empowering the natural resources around them.
3. The obstacles or constraints experienced by Timor Leste SMEs in implementing a quality management system are a lack of knowledge about the quality management system (not yet having good management) so the use of labor dominates all SMEs activities in Dili and its surroundings.
4. Quality variables that are appropriate and important for SMEs in achieving quality standards are Supplier interface (I/F), Company interface (I/F), Community interface (I/F) and Customer interface (I/F). The Supplier Interface (I/F) consists of the supplier's fulfillment of the materials ordered by the company (both in terms of quality, cost and delivery). The Company's Interface (I/F) consists of involving employees (men) in setting direction and meeting customer expectations. Interface (I/F) Community consists of empowering the community in creating a priority matrix for home industry which will be developed based on the lowest raw materials and the rawest materials involving the community in determining the development of home industry as a break through for SMEs nationally. Interface (I/F) Customer consists of producing good products and maintaining relationships with customers.

5. Based on model testing that has been carried out on 50 respondents (SMEs), in general the development of the IQMS model for SMEs created in this research is good. This is evident from the average score obtained by SMEs in fulfilling the IQMS indicators is above 4 (and not a single SME obtained an average score of 4) where all SMEs are apparently included in the Grade B group, which means that the quality management system is good. implemented so far, it has been good enough to produce quality products and satisfy customers, this is because the workforce is dominated by workers from outside.

8. RECOMMENDATIONS

1. Adding variable components of the quality management system and community empowerment variable components in terms of developing regional SMEs so as to encourage the development of national SMEs.
2. Add indicators to each variable component of the quality management system.
3. Adding participatory rural appraisal indicators to identify raw materials in the highest or highest and lowest quantities so that it is easier to develop based on a priority matrix.
4. Increase the number of respondents so that the data obtained can represent the population of SMEs in the four sub-districts: Dom Aleixo, Cristo Rei sub-district, Vera Cruz sub-district and Nain Feto sub-district Dili Timor Leste.

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