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Research Article

Implementation Quality Management System Model and Participatory Rural Appraisal to Increase Performance Small Medium Industries

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ABSTRACT

Small and Medium Industries (SMEs) have a strategic role in economic growth in Dili, Timor-Leste. However, challenges in management quality and community participation often hamper the performance of this industry. This study aims to analyze and implement the Quality Management System (QMS) Model and Participatory Rural Appraisal (PRA) to improve the competitiveness and productivity of SMEs in Dili. With 50 Kaseira/SMEs respondents using 4 interfaces, namely the Supplier interface consisting of 8 indicators, the Top Down interface 28 indicators, the Community interface 6 indicators and the Customer interface 8 indicators. The research method used is a qualitative and quantitative approach with surveys, interviews, and direct observation of industry players and stakeholders. The implementation of QMS aims to improve operational efficiency through quality management standards, while PRA focuses on increasing community participation in the decision-making process and business development. The results of the study indicate that the combination of QMS and PRA can improve productivity, customer satisfaction, and community involvement in SME management. The conclusion of this study confirms that the implementation of a structured quality management system and inclusive participatory methods can be an effective strategy in encouraging the growth of SMEs in Timor-Leste.

Keywords: Quality Management System, Participatory Rural Appraisal, Small Medium Industries, interfaces, Performance, Timor-Leste.

INTRODUCTION

The development of the number of home industries (Kaseira) or Small and Medium Industries (SMEs) has also increased competition between them. This makes each company try to pay attention to the needs and desires of consumers and fulfill what they expect in order to exceed what competitors give to the same consumers. In order to fulfill this, companies must pay attention to aspects of the process, human resources and environment in producing products and services later. This causes only quality companies to be able to compete in the global market. According to Bahkri (2020), Kaseira/SMEs is a sector that plays a very strategic role in driving the movement of the national economy. One of the sectors that plays an important role in economic growth and development in Timor Leste is the Kaseira/SMEs sector, this is an opportunity for Kaseira/SMEs which prioritizes consumer needs and desires and meets consumer expectations. To fulfill this, the industry must pay attention to aspects of regulation, process, human resources, and the environment in producing products and services, policies for developing Kaseira/SMEs as an effort to face the era of free trade (Nu'man, 2005). Therefore, the products produced by the industry must be of high quality in order to compete in the global market (Nwabuokie, 2018). Globalization of the production system must overcome the limitations arising from the variability and complexity due to globalization and technological advances.

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Research Article

Ultimately, this decision will contribute to the strategic actualization of organizational goals classified according to performance measures into: (1) focus measures, and (2) time-tense measures, the first consisting of financial (monetary), and operational data (non-monetary), while the need for measurement studying the past to improve the present from these challenges, important process steps must be carried out carefully and monitored to ensure improved system performance. Global competition does not only apply to large and multinational companies, but also to Kaseira/SMEs. The complexity of industrial competition causes every company to always strive to improve its quality in order to realize consumer satisfaction. Traditional management that has been applied by many Kaseira/SMEs industries can no longer handle the problem of quality and service needs. Kaseira/SMEs must improve itself by improving the quality of the products produced and empowering the community. This process is very important for the progress of SMEs in a region or nation. Haryono (2017) provides direction, educates and trains the change team by identifying the flow of the change process carried out by top management must understand the principles of change in the basis of developing SMEs, resource capabilities and organizational capacity. Globalization of trade is an opportunity to develop business and marketing for SMEs that are able to compete, but it will also be a challenge for companies or countries that do not have high competitiveness and the government has not been maximally pro-SMEs in the country.

Quality is a characteristic associated with products, services, people, processes, and environments that meet consumer needs. The quality of a product or service is often associated with standards. According to Juran (2022), quality is conformity to customer needs or conformity to specifications. According to the American National Standards Institute (ANSI) is a collection of guidelines and technical specifications used to regulate and improve the quality and safety of products, services, processes, and systems in the United States. This standard was developed by experts in various fields, including information technology, construction, manufacturing, and more. The use of ANSI is very important because it can help improve the efficiency, compatibility, and safety of products and services. Oliveira et al. (2017) stated that quality management is closely related to the strategic management of an organization. It is surprising that the pre-2015 version of ISO 9001 - the reference standard for implementing a Quality Management System (QMS) does not have a mandatory requirement to link quality management to the strategic organization. By following ANSI, companies can ensure that their products and services are safe for consumers to use, reducing the risk of accidents or injuries that can be caused by unsafe products. Using ANSI also facilitates communication and interoperability between various systems. ANSI also plays a role in standardizing new technologies, helping companies and government agencies create compatible products and services. According to Adrianto et al. (2012), the Malcolm Baldrige National Quality Award (MBNQA) and the European Quality Award are expected to encourage and motivate companies, both successful and developing, to always improve quality and performance, as well as the key to competitiveness. Al-Shabibi (2019) said that to test the implementation of Total Quality Management (TQM) in SMIs, by allowing to measure progress in overcoming obstacles, and facing challenges that test the relationship between TQM practices and performance by investigating the impact of TQM practices on SMIs performance. Taskov (2015) stated that to build a management team in designing and implementing a TQM system for home industries (Kaseira) or small and medium industries with all their advantages and disadvantages and their application in practice. While conventionally, quality usually describes the direct characteristics of a product, such as: appearance, reliability, ease of use, aesthetics, and so on. Vincent (2015) stated that quality is everything that is able to meet customer desires or needs. The concept of quality has evolved over time. Quality management involving SMIs in carrying out nano particles on the role of work in employing and expressing themselves physically, cognitively, emotionally while carrying out their role as SME actors. The initial concept of quality is the concept of supervision based on the concept of "defect detection", namely how a supervision system can detect a deviation that has occurred. Quality control is a technique and activity or planned action carried out to achieve, maintain and improve the quality of a product and service so that it is in accordance with predetermined quality standards and can meet consumer satisfaction. Amaral and Pecas (2019) said that the era of globalization has changed SMIs by marking the progress of technology industry 4.0 and society 5.0, can provide guarantees for product safety and quality proactively preventing errors in the manufacturing process of a product. According to Nazmi and Izwaan (2023), empirical studies showing that ISO certification has no effect on performance continue to raise doubts about the effectiveness of the quality management system on performance. This concept is used as quality assurance.

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Research Article

The Ministry of Industry aims to make SMEs more competitive in facing the era of free trade of the ASEAN-China Free Trade Area and the ASEAN-China Free Trade Area, where the Timor Leste Government has given freedom to Telemor Companies from Vietnam, Telecomcel from Indonesia to compete with the Timor Telcom company. This cooperation can encourage Kaseira/SMEs in four Sub Districts in the Dili District to maintain and improve company efficiency. Based on this, Kaseira/SMIs need to implement two models, namely the Quality Management System (QMS) leading to improvements and enhancements in the quality of products produced based on the International Standard Organization (ISO), while Participatory Rural Appraisal (PRA) leads to community empowerment and identification of Kaseira/SMEs through opinion polls, from the highest opinion poll value to the lowest opinion poll value. This aims to break through the community in improving product quality and provide freedom to the community in developing Kaseira/SMEs, encouraging Timor Leste SMEs to continue to make efforts to develop Kaseira/SMEs. From the problems experienced, there are 3 (three) basic reasons for a country that was founded in 1976 and then received international legitimacy on May 20, 2002, to view the existence of Kaseira/SMEs, namely: (1) Kaseira/SMEs performance tends towards productive labor, (2) Increased productivity through investment and technological changes used by Kaseira/SMES, (3) Excellence and flexibility in using QMS which is known for the Company's ability to maintain the quality of products or services offered. Fahil et al. (2018) explain the strategy for developing a quality management system for the Gayo Coffee agro-industry with a Soft System Methodology approach. Clearly, these three things have different roles and responsibilities, even though they are in the same division based on the ISO 9001 standardization in 2015. The five-year development plan outlined in the 2011-2030 Strategic Plan which is the vision of the Republic of Timor-Leste for twenty years. The government has formulated a creative economy development based on local community participation to encourage increased productivity and community income, create jobs, increase exports that can contribute to the sustainability of SMEs which are one of the important cooperative sectors in the economy of the Republic of Timor-Leste. Střihavková et al. (2021) discuss the definition of corporate social responsibility, the importance of this industry as a stakeholder and the basic principles of the overall concept. Toke (2020) states that SMEs are the driving force of the nation's economy, are important in opening up jobs, creating a spirit of entrepreneurship and domestic innovation so that it is very important to foster competitiveness and employment. This shows the potential, problems, opportunities and strengths of the community to be used as a basis for planning problem solving, program plans, achievements and joint monitoring according to potential and capabilities (Muhsin, 2018).

Decentralization of the central government has caused local governments to not develop Kaseira/SMES in the regions and on the other hand is one of the driving forces to encourage regional economic growth through community empowerment to identify raw materials and SMES to be developed based on opinion polls. Mendrofa (2022) said that companies everywhere will definitely face tight global competition, very rapid developments in the world of technology and digital and uncontrollable changes, so that every company must adapt to existing developments and changes. 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 workers continuing to grow, economic growth, and a trading system dominated by traders from other countries: China, Pakistan, India, Indonesia, Bangladesh, Vietnam, Singapore and other countries. The development and growth of SMES is one of them as a driving force for development and economic growth in many countries in the world. SMES plays a role in strengthening the national economy. Economic actors in Timor Leste are dominated by other countries, especially in the industrial sector. The development and guidance of SMEs need to be carried out by the government, especially the industry and trade office (Filima, 2017). In combining the two models, the QMS model leads to improvements and enhancements in the quality of products produced based on ISO and the PRA model leads to community empowerment and identification of Kaseira/SMEs through opinion polls. This poll will show the order of the highest opinion poll value to the lowest opinion poll value, meaning that the development of Kaseira/SMIs to be developed is based on the results of the opinion poll. These two models can encourage the growth of Kaseira/SMEs as a breakthrough in developing SMEs in order to maintain the products produced and continue to exist in the market. The real condition is that local people cannot compete with SMEs from outside, this happens in all shop businesses, wholesale sales to retailers which are dominated by SMEs from outside, while local entrepreneurs from the government have not maximally encouraged to compete. The government has also not yet clustered the medium

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Research Article

industry, so researchers expect the government, especially the Ministry of Commerce, Tourism and Industry (MCTI) to carry out maximum control over Kaseira/SMES that carry out production process activities or services produced. The Ministry of Commerce, Tourism and Industry (MCTI) is required to conduct inspections of economic activities through a government agency that has been established by the Autoridade Inspeção e Fiscalização da Atividade Económica, Sanitária e Alimentár (AIFAESA). From the Ministry of Tourism, Trade and Industry (MTCI), the Timor Leste Quality Association (AQTL) which was established in 2015 has also not optimally grouped Kaseira/SMEs that carry out business activities. From several points obtained by the researcher, Kaseira/SMES have not implemented QMs, this is caused by the lack of socialization by MCTI to Kaseira/SMEs spread across four sub-districts, but there are SMES that have implemented QMS in maintaining production activities and services produced.

Setyadi et al (2022) implemented standard system quality management to ensure that several pillars/indicators that are superior are in accordance with the desires and expectations to be able to compete with other countries. The new form of colonization in the era of globalization is no longer just physical and psychological colonization, but has become a new form. This new form of colonization can include technological colonization, economic control, and the influence of foreign culture on the order of life of Timor Leste. This new form of colonization is reflected in the configuration of culture and society that is consistent with consumer goods, telecommunications, YouTube applications, and computerized information becoming the dominant form throughout the developed world and increasingly spreading to society. In the development of technology called the industrial revolution 4.0 and society 5.0, it has become a spectacle and colonizes everyday life and changes political, economic and social relations. The concept of the industrial revolution 4.0 is a concept that was first introduced by Professor Schwab in 2017. He is a famous German economist and technician as well as the initiator, founder and Executive Chairman of the World Economic Forum (WEF) who through his book, The Fourth Industrial Revolution, stated that the industrial revolution 4.0 can fundamentally change the way we live, work, and relate to each other. Accuracy, speed, efficiency, and quality of production are the differentiators from the previous industrial revolution era. In this case, Timor Leste as a new country founded in the era of globalization is certainly a poor country, which is a country whose economy is globally controlled through the formation of a social market structure with negative continuity. This negative continuity is a condition that produces a surplus in the center of the control structure, but also becomes a surplus as a new country in the era of globalization. Sutami (2021) stated that the world is not only entering the stage of the industrial revolution 4.0 which gives rise to what is called artificial intelligence (AI) and proclaims the existence of a social revolution 5.0 which talks about the use of digital technology in human life. In facing the era of global competition, there is no choice but to increase national competitiveness. To maintain and increase national competitiveness in order to realize sustainable development, a national development policy direction with a new paradigm is needed (Nu'man, 2005).

The continuity of information and how the process of controlling the development and construction of the Timor Leste nation is more left to the social superstructure, such as how government institutions have an independent role, but their role is less dominant than the capital owners who control the nation's trade system, and how government institutions are intervened by capital owners. Taleem et al. (2018) said that to achieve sustainable performance, organizations must have used various strategies, including Total Quality Management (TQM) which is recognized as the most famous. What should happen is that the Government is more dominant in intervening in market mechanisms and capital owners. Low managerial ability, experience of owners or managers, no experience in running a business, Ability to access input and output markets, production technology and sources, capital is still weak, small business capital, government/private support, technological advances are controlled by entrepreneurs from outside giving rise to pros and cons in national development. The form of economic colonization and colonization of Kaseira/SMEs which is dominated by foreign countries. Rifky et al. (2023) said that Science, Technology and Arts (IPTEKS) is a field of science related to the development of knowledge and technology to meet human needs. Science and Technology can be considered as part of science that allows humans to master nature and achieve progress in various fields. One of them is the mastery of science and technology, for example other countries have modified Tais so that they are indirectly able to control the economy and culture, where this can be prevented by building the character of the Timor Leste nation and developing local intelligence. In addition, building policies and controls by

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Research Article

the government that prioritize science, technology and art, domestic economy, and maintaining the nation's cultural values (Vivaldy, 2023).

Decentralization of the central government has made local governments not yet develop SMEs in the regions, the understanding of decentralization is actually the transfer of authority from the central government to local governments to take care of human resource empowerment affairs based on the initiatives and aspirations of their people within the framework of developing regional SMEs acting as one of the efforts that encourage regional economic growth through local community participation, but this is difficult to apply to the community. Laily (2021) said that to find out the effect of entrepreneurial orientation on market orientation and business performance of small and medium industries (SMIs) indirectly affects entrepreneurial orientation on business performance through market orientation as a mediator. Hashim et al (2022) found nine schemes for implementing Malaysian halal certification for small and medium industries based on Malaysian halal certification procedures (domestic) in developing food and beverage products, cosmetic products, pharmaceuticals, good products, food premises, logistics, slaughterhouses and medical devices. The development of SMIs in the regions is closely related to the central government's plan to establish regional autonomy and the central government has prepared the workforce through training and sending workers to other countries. Expansion of employment opportunities is an effort to develop sectors that can absorb workers. Other obstacles and problems of small and informal businesses are also caused by the difficulty of accessing information and productive resources such as capital and technology, which results in limited ability of small businesses to develop (Faisal, 2019). According to data from the Ministry of Comercio, Tourism and Industry (MCTI, 2023), SMEs in 13 Districts total 1,349, not including large industries such as Heineken and Timor Leste Ciment (TL Ciment), but a number of these SMEs are controlled by other countries. Othman et al (2017) said that performance will be influenced by many factors such as motivational factors, government and organizational policies, organizational factors and work-life balance. Benjamin's (2023) research was conducted in four Sub Districts with a total of 428 Kaseira/SMEs, where Dom Aleixo has 189 Kaseira/SMEs, Cristo Rei has 74 Kaseira/SMEs, Nai Feto has 96 Kaseira/SMEs, and Vera Cruz has 69 Kaseira/SMEs. Of the 50 Kaseira/SMEs representatives using four interfaces as a connector, namely the Supplier Interface (I/F) consisting of 8 indicators, the Top Down Interface (I/F) consisting of 28 indicators, the Community Interface (I/F) consisting of 6 indicators and the Customer Interface (I/F) consisting of 8 indicators. The four interfaces use the two QMS models and the PRA model to be implemented in Kaseira/SMES in measuring productivity and work performance that can answer desires and satisfaction.

RESEARCH METHODS

The design of this study is in line with the objective of creating a Quality Management System (QMS) and Participatory Rural Appraisal (PRA) model that is suitable for Kaseira/SMEs. This study models how to develop Kaseira properly based on consumer satisfaction, where this model can support the growth of Kaseira/SMEs in four sub-districts in Dili-Timor Leste. This study uses four interfaces (I/F), namely: Interface (I/F) Supplier, Top Down, Community, and Customer to combine QMS that leads to quality improvement and PRA that leads to empowerment of Kaseira/SMES. The research is a qualitative and quantitative study that uses sampling methods and questionnaires as its supporters. This study aims to find out how to empower the community to take part in product development based on existing raw materials. The results of the opinion poll on SMES are sorted from the highest to the lowest value. The next process is to create a priority matrix design for problems to satisfy consumers for the research to be conducted. In general, this study aims to determine how Kaseira/SMES carry out its activities that can improve the quality of products and services produced by considering community participation in developing Kaseira/SMES as a disruptor of the national industry.

After identifying the model, the next step is to combine the QMS model that leads to improving the quality of products and services produced, while the PRA model is used to empower the community in identifying products to be developed based on opinion polls on Kaseira/SMES that will be developed based on existing raw materials. Mustanir (2019) stated that PRA is a participatory planning method in development planning and the efforts of the village government to involve all community groups and stakeholders in planning discussions. This combination will later

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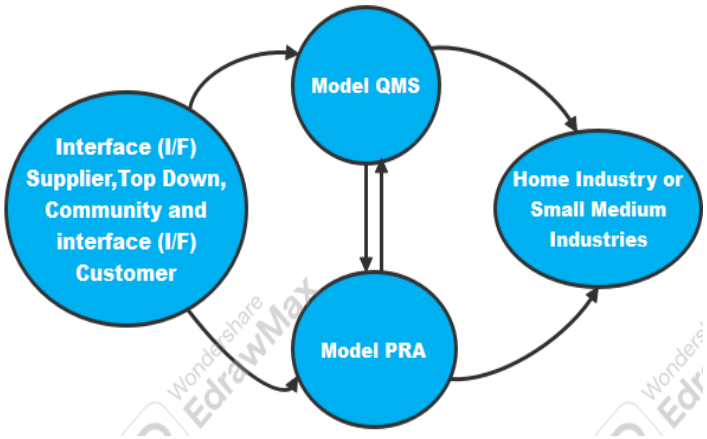
Research Article

be implemented in Kaseira/SMES as a disruptor of large industries. Benjamin's research (2023) uses four interfaces, namely: Interface (I/F) Supplier, Top Down, Community, and Customer which are implemented in Kaseira/SMES four sub-districts in Dili-Timor Leste, which leads to the output of one subsystem will become input for the next subsystem. By connecting subsystems to other subsystems so that it becomes a model that is suitable for implementation so that it can later increase the activity of Kaseira/SMES for the products or services produced. The merging of models is explained in Figure 4.3.



The integration of the QMS and PRA models in this study offers a new contribution by combining two approaches to improve the performance of SMEs in Dili, Timor Leste. This approach has not been widely applied simultaneously in the context of SMEs in the region. The implementation of QMS aims to improve product quality and operational efficiency of SMEs, while PRA involves the active participation of local communities in identifying potential and existing problems, and formulating development strategies that are in accordance with local needs. The combination of these two approaches is expected to provide a more comprehensive and sustainable solution for the development of SMEs in Dili, Timor Leste. In addition, the importance of community empowerment through the PRA method in the context of Kaisera/SMES development can increase community participation in the planning and decision-making process, as well as increase the success of local economic development programs.

The development model is carried out, then the Supplier Interface (I/F) is added whose indicators consist of supplier compliance with materials ordered by the company, costs and delivery. If all indicators on the Top Down Interface (I/F) have been met, then the Community Interface (I/F) fulfills the desire to empower the community in advancing the regional small and medium industries and the Customer Interface (I/F) which is the company's output to meet customer satisfaction and interface below:

Analysis 8 Indicator interface (I/F) Supplier

After analyzing the Model to reduce the value of the principal, it is easier to control SMIs that are always being developed based on the priority matrix of the Interface (I/F) Supplier, from next format:

1. Kopiten (S1).
2. Glau Deste (S2).
3. Barros Elektrical,Unip.LdaS3).
4. Martins Mebel (S4).
5. Mebel Diak,Unip.Lda (S5).
6. Elnu Umaes UN.Lda (S6).
7. Mebel Mahkota Jati.Lda (S7).
8. Timor Building Industry (S8).

Journal of Information Systems Engineering and Management
2025, 10(43s)
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https://www.jisem-journal.com/

Research Article

Analysis 28 indicator interface (I/F) Top Down

Then the code number is entered into the Priority to sort the Priority Numbers Highest to Lowest, meaning the development of small medium industries based on the number code on the Interface (I/F) Top Down:

- Lexols Aluminium Unip.Lda (TD1).
- Brother Building.Lda (TD2).
- PT.Sun International (H20) Unip.Lda (TD3).
- Universal.Lda i (TD4).
- Be'e Mor Fonte de Saude II,Unip.Lda (TD5).
- Golden Aqua Unip.Lda (TD6).
- Golden Aqua (V.I.P) (TD7).
- Mebel Loru Mata (TD8).
- Acnaf Carpintaria (TD9).
- Rumontes melibatkan(TD10).
- Jepara Mebel (TD11).
- Apacer Unipesoal.Lda (TD12).
- Carpintaria Sumber Ekonomi (TD13).
- Chilled Unipesoal.Lda (TD14).
- Raios Vamanass (P15).
- Honeg Cake, Lda an (TD16).
- Rose Wood Unip.Lda (TD17).
- Matrix Unip. Lda (TD18).
- Sander Unip.Lda (TD19).
- IRA-MOR Unip.Lda (TD20).
- Jati mandiri (TD21).
- Brend Talking Liu an (TD22).
- Gailhos L'Jago,Unip.Lda (TD23).
- Marzela Rental (TD24).
- Casa Bakita (TD25).
- Jati Makmur Unipesoal.Lda (TD26).
- Alola Esperansa (TD27).
- Germinar Unip.Lda (TD28).

Analysis 6 Indicator Interface (I/F) Community

Then the code number is entered into the Priority to sort the Priority Numbers Highest to Lowest, meaning the development of small and medium industries based on the number code on the Interface (I/F) Community:

Journal of Information Systems Engineering and Management
2025, 10(43s)
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https://www.jisem-journal.com/

Research Article

- Padera Buka Rasik (CM1).
- Jerota (CM2).
- Carpitaria Nain Feto (CM3).
- Kmanek Supermarket,Unipesoal.Lda (CM4).
- Incanto Weste,Unip.Lda (CM5).
- JSS (Jesuita Serviço Sosial) (CM6)

Analysis 8 indicator interface (I/F) Customer

Then the code number is entered into the Priority to sort the priority numbers highest to lowest, meaning the development of small medium industries based on the number code on the Interface (I/F) Customer:

1. Nopen (C1).
2. Laloran Tasi (C2).
3. Mere Balteum Resures,Lda (C3).
4. Aru Bakery (C4)
5. Hotel & Aru Bakery,Lda (C5).
6. Sisca Mebel, Unip.Lda (C6).
7. Keenkeeper, Lda (C7).
8. Jaime United & Food Traningco,Lda (C8)

RESULTS AND DISCUSSION

The four Interfaces (I/F) are used as a link to fifty Interface indicators to measure SMIs to increasing productivity, as explained below:

- **Indicator 8 Interface (I/F) Supplier**

After measuring product quality, team work performance, human resources, technology mastery and productivity from indicators S1 with key performance indicators score 4.44 so on is category higth score, S2 4.3 is category low score, S3 4.5 is category higth score, S4 4.4 is category higth score, S5 4.5 is category higth score, S6 4.5 is category higth score, S7 4.54 is category higth score, S8 4.3 is category higth in quality, performance, material, delivery, complaints, suppliers, innovation and company, it shows that the Supplier is very good at carrying out good cooperation.

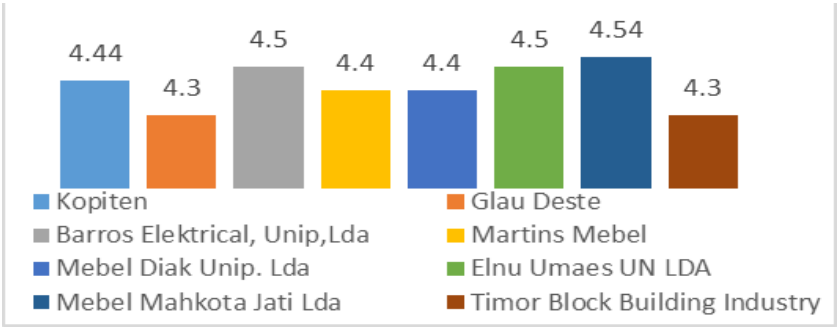

Figure 1. Productivity Graph Interfaces Supplier

Journal of Information Systems Engineering and Management
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https://www.jisem-journal.com/

Research Article

- **Indicator 28 at the interface (I/F) Top Down**

After measuring product quality, team work performance, human resources, technology mastery and productivity from indicators TD1 with a key performance indicator score 4.3 and so on is category medium score, TD11 with a key performance Indicator score 4.54 is category medium, TD19 4.38 is category medium score, TD25 4.46 is category higth score, TD27 4.44 is category higth score and TD28 4.66 is category higth score in quality, training, quality improvement, customer desires, human resources, planning and service, quality control and service, customer requirements, customer relationships, feedback, process delivery, customer satisfaction, the company, this states company, relationships and good cooperation, this shows that production productivity has increased.

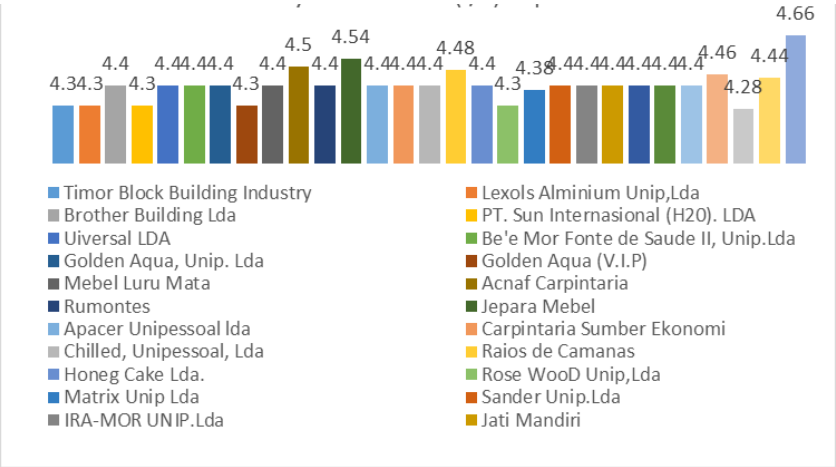

Figure 2. Productivity graph interfaces Top Down

- **Indicator 6 on Interface (I/F) Community**.

After measuring product quality, team work performance, human resources, technology mastery and productivity from indicators CM1 with key performance indicator score 4.3 is category medium, CM2 4.4 is category higth score, CM3 4.44 is category higth score, CM4 4.34 is category higth score, CM5 4.4 is category medium score, CM6 4.5 is category higth score, regarding quality, raw materials, training and improvement of domestic industry, community desires, identification of raw materials, it shows that the Community is carrying out good cooperation, It shows that production productivity has increased in the graph.

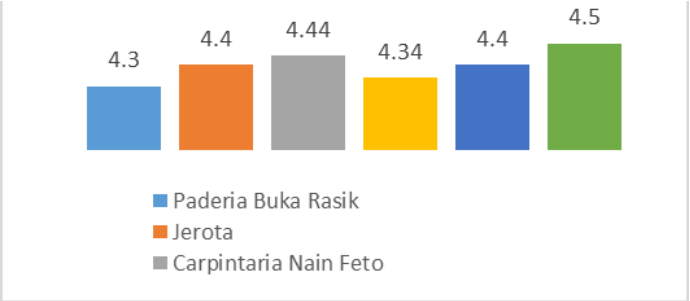

Figure 3. Productivity graph Interface (I/F) Community

- **Indicator 8 in the Interface (I/F) Customer.**

After measuring product quality, team work performance, human resources, technology mastery and productivity based on indicators C1 with a key performance indicator score 4.44, C2 with a Key Performance Indicator score 4.48, C3 with a key performance indicator score 4.4, C4 with a key performance indicator score 4.44, C5 with a Key Performance Indicator score 4.4, C6 with a key performance indicator score 4.46, C7 with a key performance indicator score 4.3, C8 with a key performance indicator score 4.52, on product quality, product price, delivery time, product

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defects, good service, price issues, satisfaction with product innovation, it is stated that the company states that customers are very good at carrying out good cooperation, which shows that production productivity has increased.

Productivity Graph at the Interface (I/F) Customer productivity value increases at C3 score 4.48 Customers do not blame the company's product prices (repurchases always occur, value C6 score 4.52 Customers always get products with the expected quality and also get good service, the best of the company's integrated systems, value C4 score 4.44. Customers always find product innovations from companies that can increase labor productivity with the aim of satisfying consumer desires in graph.

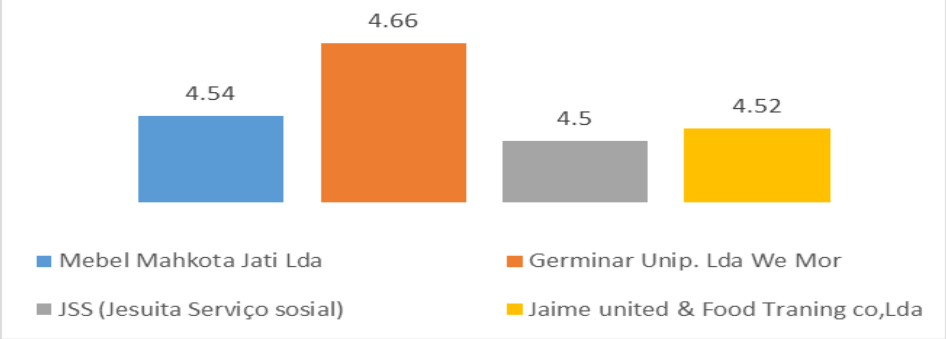

Figure 5. Combination Productivity graph in 4 interfaces

Merger Productivity chart at the Interface (I/F) Supplier The productivity value increases at the supplier interface in the production of Carpentaria with a value of 4.54, Customers do not blame the price of the company's product (repurchases always occur, the productivity value increases at the Mineral water interface (I/F) Top Down 4.66 increased productivity value at the interface (I/F) Community in the production of kadeiras, mejina with a value of 4.5, increased productivity value at the interface (I/F) Customer in the production of beverages with a value of 4.52. Customers always get products with the expected quality and also receive the best service from a business system that prioritizes product innovation that can increase labor productivity with the aim of satisfying consumer desires.

CONCLUSION

Implementation of the QMS model can improve product quality in 50 Kaseira/SMEs spread across 4 (four) Sub Districts, namely: Dom Aleixo, Cristo Rei, Nain Feto, and Vera Cruz. This can be proven from the still low indicators of S1 score 6, S2 score 4, S5 score 4 to the lowest value of S7 score 3 on the Interface (I/F) Supplier; TD28 score 31, TD19 20, TD10 score 19, TD1 score 18, TD13 score 17, and TD14 score 17 to the smallest number TD3 score 16, 15 on I/F Top Down; CM6 score 3, CM1 score 3 to the smallest number CM2 score 2 and C1 score 4, C2 score 4, C5 score 4 to the smallest number C3 score 3 on the Interface (I/F) Customer. 2. Identification of existing IKM in the development of Kaseira/SMEs is carried out through opinion polling denoted by CM1score KPI 4.3, CM2 score KPI 4.4, and CM6 score KPI 4.5 all satisfied with the Interface (I/F) Community.

Analysis of the integration of models, where the QMS model is implemented to improve the quality of the products produced, while PRA is implemented in the empowerment and development of 50 Kaseira/SMEs in 4 (four) Sub Districts of Dili-Timor Leste so that they are able to move as a disruptor of the national industry.

Increasing productivity of 50 Kaseira/SMEs in achieving quality standards at each Interface. namely: Supplier interface grade B with a satisfaction score of 4.54, Top Down Interface grade B with a satisfaction score of 4.66 Community Interface grade B with a satisfaction score of 4.5 and Customer interface grade B with a satisfaction score of 4.52 in the implementation of the QMS model showed good results while the PRA model showed good results, this can be seen from the average KPI score on the Supplier Interface (I/F) is 4.54, the average KPI on the Top Down Interface (I/F) is 4.66, the average KPI on the Community Interface (I/F) is 4.5, while the KPI value on the Customer Interface (I/F) is 4.52 which means that the product quality and work performance are good. After the two models are combined, it can support the development and performance of Kaseira/IKM so that it can increase workforce productivity in meeting consumer satisfaction and producing quality products.

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