



**FINAL PROJECT – TI 141501**

**PERFORMANCE MEASUREMENT SYSTEM DEVELOPMENT FOR  
MICRO ENTERPRISES UNDER THE COACHING PROGRAM OF  
DINAS PERDAGANGAN DAN PERINDUSTRIAN KOTA SURABAYA**

**Firza Amelia Azzahra Hidayat**

**NRP 2511.100.090**

**Supervisor:**

**Dr. Imam Baihaqi, S.T., M.Sc.**

**Co-Supervisor:**

**Naning Aranti Wessiani, S.T., M.M.**

**INDUSTRIAL ENGINEERING DEPARTMENT**

**Faculty of Industrial Technology**

**Institut Teknologi Sepuluh Nopember**

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## APPROVAL SHEET

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### FINAL PROJECT

Submitted to Acquire the Requirement of Bachelor Degree:

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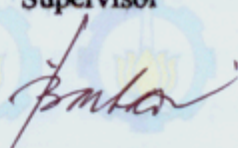
Author:

**FIRZA AMELIA AZZAHRA HIDAYAT**

NRP. 2511 100 090

Approved by Final Project Supervisor:

Supervisor



**Dr. Imam Baihaqi, S.T., M.Sc.**

**NIP. 19700721 199702 1 001**

Co-Supervisor



**Naning Aranti Wessiani, S.T., M.M.**

**NIP. 19780207 200312 2 001**

**SURABAYA, 22 JULY 2015**



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Name : Firza Amelia Azzahra Hidayat  
Student ID : 2511100090  
Supervisor : Dr. Imam Baihaqi, S.T., M.Sc.  
Co-Supervisor : Naning Aranti Wessiani, S.T., M.M.

**ABSTRACT**

Micro, Small and Medium-sized enterprises (MSMEs) industries play a crucial role in the economy of Indonesia. Most MSMEs operate in a fiercely competitive environment in addition to the incoming ASEAN Economic Community (AEC) 2015 regulation; as such, it is important to improve business practices. One government strategy to improve the business practice of micro enterprise is giving them coaching for a certain period. Dinas Perdagangan dan Perindustrian Kota Surabaya has implemented a “Coaching Program” for selected micro enterprises in Surabaya. However, there is no structured mechanism to show how far the Coaching Program has been progressing. It is believed that performance measurement is able to help Dinas Perdagangan dan Perindustrian Kota Surabaya to monitor the achievement of micro enterprises that are being coached. This final project aims to develop performance measurement system for the Coaching Program using the Integrated Performance Measurement System (IPMS) method.

**Keywords:** Integrated Performance Measurement System (IPMS), Micro Enterprise, Performance Measurement

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# **CHAPTER 1**

## **INTRODUCTION**

This chapter provides Background, Problem identification, Objective, Benefit, Scope and Outline of the final project.

### **1.1 Background**

Indonesia is moving towards the ASEAN Economic Community (AEC) at 2015. AEC is the realization of economic integration which aims to create a single market of Asian countries. There will be free flow of goods, services, investment capital, and skilled labor following the liberalization (ASEAN Economic Community, 2008).

AEC could be an opportunity and threat at the same time. Indonesia, which has the biggest natural resource among other Asean nations should benefit the situation by supplying finished goods. In addition, the broad options of natural tourism destinations, rich social, culture and bio diversity are obviously attracting tourists. However, Indonesia which is the fourth most populous nation in the world and has 40% of Asean population with the population of about 240 millions people in 2014 (Badan Pusat Statistik, 2014), will be reversely the promising market for other Asean countries if Indonesia has not accelerated its preparations to face AEC. Under the free flow of goods scheme, products from Asean countries will enter Indonesia freely and compete with local brands. Similarly, AEC adopts the free flow of skilled labor which allows skilled labor work in Indonesia freely. Currently, the trend in Indonesia is exporting unskilled labor or often called as Tenaga Kerja Indonesia (TKI) rather than exporting skilled labor. If the skilled labors do not improve their quality, Indonesia may only be the audience of AEC. While other Asean countries are busy expanding the market, Indonesia may as well be only the customer. The threat of business or industry world becomes wider as other Asean countries aggressively anticipate and prepare themselves to face AEC. Their strategy could make Indonesia as their main target market for their products.

Besides, according to recent survey by World Economic Forum (2014), the global competitiveness of Indonesia is ranked on number 4 among Asean countries, but the score is far below Singapore and Malaysia. One way to increase the global competitiveness rank of Indonesia is to increase the economic growth. This action focuses on local businesses or industries in order to make them remain optimistic to improve their performance. The whole global competitiveness rank of Asean countries is presented in Table 1.1.

Table 1.1 The Global Competitiveness Rank in 2014-2015 of ASEAN Countries

Country	Global Competitiveness Rank
Singapore	2
Malaysia	20
Thailand	31
Indonesia	34
Philippines	52
Vietnam	68
Laos	93
Cambodia	95
Myanmar	134
Brunei Darussalam	-

Source: World Economic Forum, 2014

Increasing economic growth of Indonesia can be achieved by improving the performance of local business or industry as it plays crucial role in nation's economy. One of domestic business or industry that plays crucial role is Micro, Small, Medium Enterprises (MSMEs) or Usaha Mikro Kecil Menengah (UMKM).

MSME plays a strategic role in national economic structure as well as helps control inflation. It is proved that MSME's growth could lead to the decreasing of unemployment and the increasing domestic national income. Ministry of Cooperatives and SME of Indonesia recorded that almost the whole percentage of total income and business in Indonesia is in form of MSME which raises to 56 millions MSME in 2013. In this period, MSMEs accounted for about 57 % of the national Gross Domestic Product (GDP) while contributing to about

107 millions workers or 97.16% of the total employment sector (Ministry of Cooperatives and SME, 2013).

Despite the important contribution made by MSMEs, there are several of challenges that prevent them from doing business at full capacity. Cited from Mukwasi et al. (2012), some challenges faced by MSMEs are lack of finance, managerial expertise; access to international markets, equipment and technology problems (Aryeetey et al., 1994; Diale, 2009; Gockel and Akoena, 2002). Many of MSMEs in Indonesia do their business as usual. They need to improve and learn the market condition in other Asean countries by observing other MSMEs in other countries how they market their product, how they attract customer, how they manage their distribution and other aspects to prepare for AEC.

MSME is classified into three types; Micro, Small and Medium-sized. According to “Undang-undang No. 20/2008” concerning Micro, Small and Medium Enterprise, the classification of enterprises in Indonesia is based on the amount of assets and revenue shown in Table 1.2.

Table 1.2 Classification of Micro, Small, Medium Enterprise in Indonesia

No	Type	Criteria	
		Assets	Revenue
1	Micro Enterprise	≤ Rp 50.000.000	≤ Rp 300.000.000
2	Small Enterprise	> Rp 50.000.000 – Rp 500.000.000	> Rp 300.000.000 – Rp 2.500.000.000
3	Medium Enterprise	> Rp 500.000.000 – Rp 10.000.000.000	> Rp 2.500.000.000 – Rp 50.000.000.000

Source: Undang-undang No. 20/2008

Among the three enterprises, micro enterprise is commonly left behind small and medium-sized enterprises due to the limited capital, human resource and access of information on how to expand the business.

In order to improve the performance of micro enterprises, government supports them through funding, coaching, training, facilitating and many more. Since Indonesian government implements decentralization policy, micro enterprises are controlled under local bureau in each City or Kabupaten. One of



government bureau that supports micro enterprises is Dinas Perdagangan dan Perindustrian Kota Surabaya which will be the object of this final project.

One of the duties of Dinas Perdagangan dan Perindustrian Kota Surabaya is to improve the performance of micro enterprise. In order to carry out this duty, a division under Dinas Perdagangan dan Perindustrian Kota Surabaya named Industry Division, created two programs called “Penyelenggaraan Pembinaan Industri Rumah Tangga, Industri Kecil dan Industri Menengah” and “Fasilitasi Pengembangan Sentra-Sentra Industri Potensial”. Both of these programs have the same target that is creating competitive micro enterprises by coaching them for a certain period.

The concept of these programs is to coach a group of identical micro enterprises in particular area (Kecamatan) which is called as Kampung or Sentra. This concept follows the idea of ‘Community-based Activity’ which came from the Vision and Mission of Kota Surabaya. The difference of these programs is that the first program (Penyelenggaraan Pembinaan Industri Rumah Tangga, Industri Kecil dan Industri Menengah) is responsible to coach Kampung and the second program (Fasilitasi Pengembangan Sentra-Sentra Industri Potensial) is responsible to coach Sentra. The idea behind the different name of Kampung and Sentra is:

- *Kampung*: There is no selection criteria and clear definition of Kampung except that a Kampung is located in an area (Kecamatan) and has more than one micro enterprise that produce similar product. In 2010, Bappeko Kota Surabaya asked Dinas Perdagangan dan Perindustrian Kota Surabaya to coach 10 groups of micro enterprises which are now called as Kampung.
- *Sentra*: There is no clear definition of Sentra except that a Sentra is located in an area (Kecamatan) and must have more than one micro enterprise that produce similar product. A Sentra is solely selected based on survey and discussion with Industry Division of Dinas Perdagangan dan Perindustrian Kota Surabaya.

However, the activities and objectives of both programs are identical. Therefore, Industry Division made a merged subsidiary program called “**Coaching Program**” and employs several people to coach the selected micro enterprises called as “**the Coach**”.

Based on discussion with Dinas Perdagangan dan Perindustrian Kota Surabaya, this program does not have clear criteria to measure the performance of Micro Enterprises and Kampung/Sentra before and after the Coaching Program. There is no structured mechanism to show how far the Coaching Program has been progressing. In addition, there is no structured report about the Micro Enterprises and Kampung/Sentra. As a result, Dinas Perdagangan dan Perindustrian Kota Surabaya is unable to know the status of Micro Enterprises and Kampung/Sentra.

This final project aims to develop, design and implement a performance measurement system to evaluate the performance of Kampung/Sentra as well as micro enterprises under the Coaching Program.

## **1.2 Problem Formulation**

Based on the above situation, this final project will address the problem of developing the suitable Performance Measurement System for Kampung/Sentra and Micro Enterprise that are being coached under the Coaching Program of Dinas Perdagangan dan Perindustrian Kota Surabaya.

## **1.3 Objectives and Benefits**

The objective and benefit of this final project are given below:

### **1.3.1 Objectives**

The objectives of this final project are:

1. Develop performance measurement system for Micro Enterprises and Kampung/Sentra which are coached under Dinas Perdagangan dan Perindustrian Kota Surabaya
2. Evaluate the existing performance of Micro Enterprises and Kampung/Sentra using the developed performance measurement system

### **1.3.2 Benefits**

The benefits of this final project are:

1. To help Dinas Perdagangan dan Perindustrian Kota Surabaya monitor the performance of Micro Enterprises and Kampung/Sentra which are being coached under the Coaching Program

2. To help Dinas Perdagangan dan Perindustrian Kota Surabaya in determining strategy to improve the competitiveness of Micro Enterprises and Kampung/Sentra

#### **1.4 Scope**

The scope of this final project are given below:

##### **1.4.1 Limitations**

The limitations used for this final project are:

1. The output of final project object is aimed for Dinas Perdagangan dan Perindustrian Kota Surabaya
2. The final project object is focused on micro enterprises in Surabaya

##### **1.4.2 Assumptions**

The assumptions used for this final project are:

1. The regulation in Dinas Perdagangan dan Perindustrian Kota Surabaya doesn't change

#### **1.5 Outline**

The thesis outline of this final project is:

##### **CHAPTER 1 INTRODUCTION**

This chapter contains of background of the final project, problem formulation, objectives and benefits, research scope, and research outline.

##### **CHAPTER 2 LITERATURE REVIEW**

This chapter consists of information which provides theoretical base and appropriate methods that are relevant to the final project.

##### **CHAPTER 3 RESEARCH METHODOLOGY**

This chapter describes the stage of processes used to collect data and procedures to conduct the final project.

##### **CHAPTER 4 PERFORMANCE MEASUREMENT SYSTEM DEVELOPMENT AND IMPLEMENTATION**

This chapter consists of the process of developing and implementing performance measurement for Micro Enterprises and Kampung/Sentra.

## CHAPTER 5 DATA INTERPRETATION

This chapter consists of the interpretation towards the result of performance measurement system development and implementation.

## CHAPTER 6 CONCLUSION AND RECOMMENDATION

This chapter consists of conclusion which summarizes the result of this final project and recommendation for implementing the result as well as for further research.

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## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter provides information about theoretical base and appropriate method that are relevant to this final project.

#### **2.1 Micro, Small, Medium Enterprise (MSME)**

Based on the Undang-undang No. 20/2008 concerning Micro, Small, and Medium Enterprises (MSMEs), micro enterprises/businesses are defined as:

- a. Enterprises with net assets less than Rp 50,000,000 (land and building excluded) or;
- b. Enterprises which have less than Rp 300,000,000 total annual sales

While small enterprises/businesses are defined as:

- a. Enterprises with net assets from Rp 50,000,000 – Rp 500,000,000 (land and building excluded) or;
- b. Enterprises with total annual sales from Rp 300,000,000 – Rp 2,500,000,000

And medium enterprises/businesses are defined as:

- a. a. Enterprises with net assets from Rp 500,000,000 – Rp 1,000,000,000 (land and building excluded) or;
- b. Enterprises with total annual sales from Rp 2,500,000,000 – Rp 50,000,000,000.

#### **2.2 Concept of Performance and Performance Measurement**

Performance is an accomplishment of an activity measured against existing standards of accuracy, completeness, cost, and speed (Bierbusse & Siesfeld, 1997). Every organization should measure, monitor and analyze its performance. Therefore, a particular organization needs to develop performance measurement.

Neely *et al.* (1995) defined performance measurement as a process of quantifying both the efficiency and effectiveness of actions. Performance

measurement refers to the use of a set of various performance measures. It includes both financial and non-financial measures, both internal and external measures of performance and often both quantitative measures from previous period as well as quantitative measures used to help predict the future (Neely, 1998).

Several factors must be considered in order to design and implement a suitable performance measurement for a particular organization. Robson (2004) wrote that before trying to identify all possible factors it is important to know the main reason for implementing performance measurement. The reasons of managing performance according to several literatures that have been summarized by The Centre for Business Performance (2005) are:

- *Strategy formulation*, determining what the objectives of the organisation are and how the organisation plans to achieve them (Archer and Otley (1991), Atkinson (1998))
- *Manage the strategy implementation process*, by examining whether an intended strategy is being put into practice as planned (Atkinson et al. (1997), Bungay and Goold (1991))
- *Challenge assumptions*, by focusing not only on the implementation of an intended strategy but also on making sure that its contents is still valid (Campbell et al. (2002), Dabhilakar and Bengtsson (2002))
- *Check position*, by looking at whether the expected performance results are being achieved (Dumond (1994), Eccles (1991), Euske et al. (1993))
- *Comply with the non-negotiable parameters*, by making sure that the organisation is achieving the minimum standards needed, if it is to survive (e.g. legal requirements, environmental parameters, etc.) (Feurer and Chaharbaghi (1995), Fitzgerald et al. (1991), Ghalayini and Noble (1996), Kaplan and Norton (1992, 1996b, 2001), Kellinghusen and Wubbenhirst (1990))
- *Communicate direction* to the rest of the employees, by passing on information about what are the strategic goals individuals are expected to achieve (Lebas (1995), Letza (1996), Marr, Grey and Neely (2003), Martins and Salerno (1999), Martins (2000, 2002))

- *Communication with external stakeholders* (Martinsons et al. (1999))
- *Provide feedback*, by reporting to employees how they are their group and the organisation as a whole is performing against the expected goals (Neely et al. (1995, 2002), Neely (1998), Otley (1999))
- *Evaluate and reward behaviour*, in order to take actions and make decisions, which are consistent with organisational goals (Rajan (1992))
- *Bechmark* the performance of different organisations, plants. Departments, teams and individuals (Roberts (1990))
- Inform managerial *decision-making processes* (Scheier et al. (1991))
- Encourage *improvement and learning* (Sink (1991))

One of the performance measurement tools an organization can use is key performance indicator (KPI).

### **2.3 Concept of Performance Indicators**

Key performance indicators are financial and non financial indicators that organizations use in order to predict how successful they are in compare to previously established long lasting goals (Velimirovic et al., 2011). While Krauth et al. (n.d.) stated that KPIs are used to evaluate the past performance of a company; making it possible to compare performance with previous periods of measurement, or industry standards or even individual competitor. KPIs allow the organization to see what areas it is executing well and what areas require improvement (Bose, 2006).

Joyce & Woods (2001) explained that good performance indicators must consider:

- Long term and short term linkage to traditional measures of profitability, return to capital employed, earnings per share, etc.
- Balance between Financial and non financial factors.
- Strategic aims which needs to be translated into critical success factors.
- Efficiency and effectiveness concerning the ratio of outputs relative to inputs.



## 2.4 Integrated Performance Measurement System (IPMS)

The Integrated Performance Measurement System (IPMS) was developed by Bittici et al. (1997). The IPMS model was designed as a closed loop control system to measure the process of performance management. The IPMS framework consists of four levels as illustrated in Figure 2.1 (Bittici et al., 1997):

- Corporate
- Business units
- Business processes
- Activities

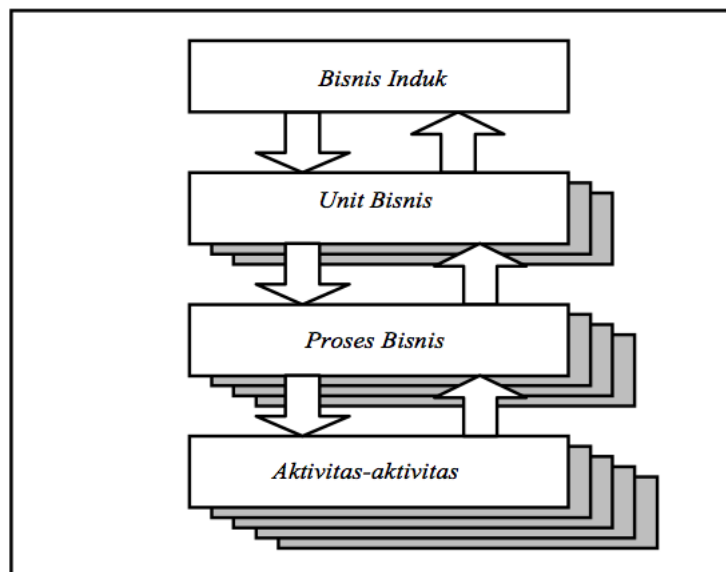


Figure 2.1 Organization Level Illustration (Bittici et al., 1997)

This framework has strength to involve the continuous improvement. However it is unclear to measure in a logical order and manages the relationships between measures (Suwignjo, 2000). Furthermore this framework fails to provide a structured process that specifies objectives and timelines for development and implementation (Pun & White, 2005).

The model underlines two main facets of the performance measurement system: Integrity, which is the ‘ability of the performance measurement system to promote the integration of various areas of business’; and Deployment, which ‘refers to deployment of business objectives and policies throughout four levels

where the higher level becomes a stakeholder of the lower level' (Bittici et al., 1997)

Artley and Stroh (2001) suggest that there are a number of aspects that should be reviewed as an initial step in establishing an integrated performance measurement system (IPMS). These aspects typically provide a strategic perspective in developing the critical few performance indicators. These aspects include:

- The strategic plan
- Key business processes
- Stakeholder needs
- The involvement of both senior management and employees
- Accountability for measures
- A conceptual framework
- Communication

## **2.5 Analytic Hierarchy Process (AHP)**

Saaty (2008) wrote that The Analytic Hierarchy Process (AHP) is a theory of measurement through pairwise comparisons and relies on the judgements of experts to derive priority scales. It is these scales that measure intangibles in relative terms. The comparisons are made using a scale of absolute judgements that represents, how much more, one element dominates another with respect to a given attribute. The judgements may be inconsistent, and how to measure inconsistency and improve the judgements, when possible to obtain better consistency is a concern of the AHP. The derived priority scales are synthesised by multiplying them by the priority of their parent nodes and adding for all such nodes. An illustration is included. AHP is effective in dealing with complex decision making because it reduces complex decisions to a series of pairwise comparisons. Three major concepts behind the AHP:

- The AHP is analytic
- The AHP structures the problem as a hierarchy
- The AHP helps in the decision-making process

The AHP consists of three main operations, including hierarchy construction, priority analysis, and consistency verification (Ho et al., 2006). First, the decision makers need to classify complex multiple criteria decision problems into its classification which every possible attributes are arranged into multiple hierarchical levels. After that, the decision makers have to compare each cluster in the same level in a pairwise fashion based on their own experience and knowledge. For instance, every two criteria in the second level are compared at each time with respect to the goal, whereas every two attributes of the same criteria in the third level are compared at a time with respect to the corresponding criterion. In order to compare the relevant values of the elements of a typical AHP model, the values and their description used are presented in the following table.

Table 2.1 The Fundamental Scale of Absolute Numbers

<b>Intensity of Importance</b>	<b>Definition</b>	<b>Explanation</b>
1	Equal Importance	Two activities contribute equally to the objective
3	Moderate Importance	Experience and judgment slightly favor one activity over another
5	Strong Importance	Experience and judgment strongly favor one activity over another
7	Very Strong or Demonstrated Importance	An activity is favored very strongly over another; its dominance demonstrated in practice
9	Extreme Importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	
Reciprocals of above non zero-numbers	If activity I has one of the above non-zero numbers assigned to it when compared with activity J, then J has the reciprocal value when compared with I	

Source: (Saaty, 1990)

Since the comparisons are carried out through personal or subjective judgments, some degree of inconsistency may be occurred. To check if the judgements are consistent, Saaty (1990) suggested to calculate the Consistency Ratio. If the consistency ratio doesn't exceed the limit of 10%, the inconsistency is acceptable. Otherwise, the judgements need to be revised. Once all pairwise comparisons are carried out at every level, and are proved to be consistent, the judgments can then be synthesized to find out the priority ranking of each criterion and its attributes. The overall procedure of the AHP is shown in Figure 2.2.

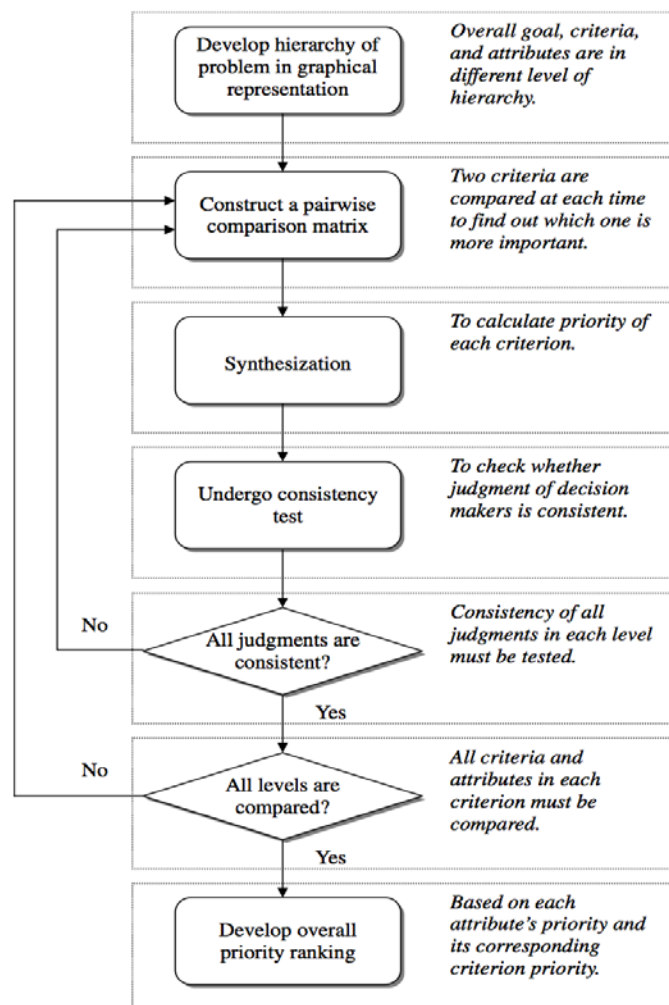


Figure 2.2 The Flowchart of Analytical Hierarchy Process (Ho et al., 2006)

## 2.6 Previous Research

This section summarizes several previous research that have been conducted in the area of performance measurement design and the implementation of Integrated Performance Measurement System (IPMS) in Small, Micro, Medium Enterprises (MSMEs) and industrial cluster.

Table 2.2 Comparisons with Previous Research

Author	Object	Performance Measurement System Method		Performance Measurement System
		Balance Score Card	IPMS	
Mukhtarom, 2010	Citra Bunga Persada (CBP) Ltd.		√	Specific for certain object/organization
Sholihah, 2013	International Office ITS	√		Specific for certain object/organization
Laksono, 2010	Industrial Cluster Waru		√	Specific for certain object/organization
Pradana, 2013	Bureau of Trade and Industry, Trenggalek	√		Specific for certain object/organization
Hidayat, 2015	Micro Enterprises in Surabaya		√	General for Micro Enterprises in Surabaya

## CHAPTER 3

### RESEARCH METHODOLOGY

This chapter explains about the methodology and process in completing this final project, which is divided into several steps. These steps are drawn in the flowchart as depicted in Figure 3.1.

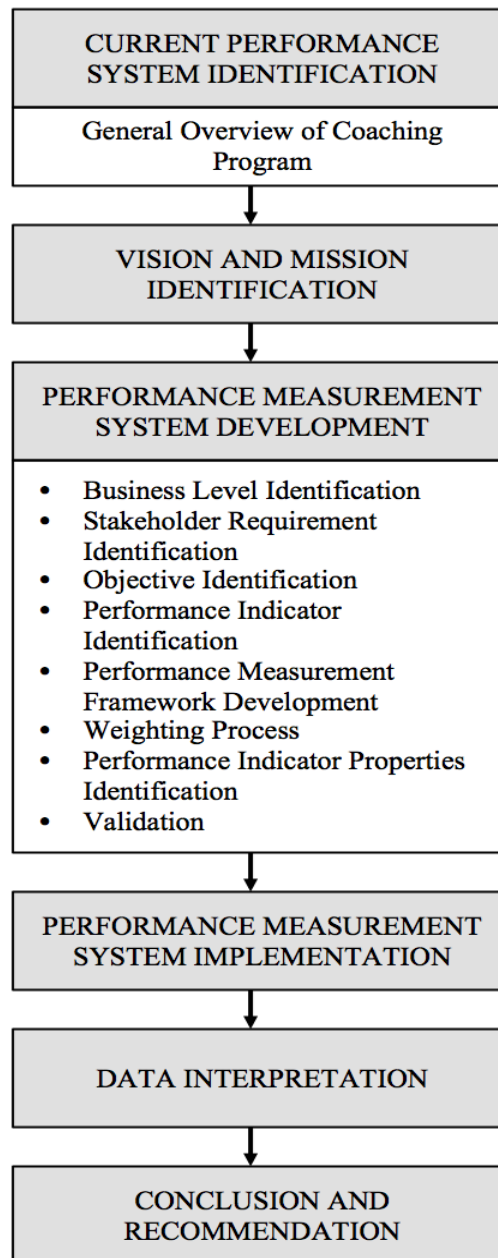


Figure 3.1 Final Project Process Flowchart

### **3.1 General Overview of Coaching Program**

This sub chapter describes about the related information about Coaching Program. The data are gathered from interview, document review and discussion with key people of Dinas Perdagangan dan Perindustrian Kota Surabaya.

### **3.2 Vision and Mission Identification**

Vision, mission and strategic objectives influences any actions performed by an organization. It is important to know the Vision, Mission and Strategic Objective of the Coaching Program, as the performance measurement needs to be aligned with the strategy. This step is to evaluate the vision, mission and strategic objective of the Coaching Program which are collected from document review as well as interview with Dinas Perdagangan dan Perindustrian Kota Surabaya. The current vision, mission and strategic objective will be the needed by Dinas Perdagangan dan Perindustrian Kota Surabaya for the next step (stakeholder requirement).

### **3.3 Performance Measurement System Development**

This process aims to describe the steps to develop the performance measurement system.

#### **3.3.1 Business Level Identification**

In this step, the business level related to the Coaching Program is identified, as the Integrated Performance Measurement System (IPMS) requires doing so. The business level is divided based on the existing condition in Dinas Perdagangan dan Perindustrian Kota Surabaya and document review about the organization structure.

#### **3.3.2 Stakeholder Requirement Identification**

In order to accommodate the needs of stakeholder towards what Micro Enterprise and Kampung/Sentra should achieve, it is important to understand what stakeholders require.

- Identifying Stakeholder

In order to understand the stakeholder requirements, it is important to identify individuals, institutions and other parties related to the Coaching Program. However, only the most important stakeholders which have strong influence to the Coaching Program will be considered.

- Identifying Stakeholder Requirement

The next step is to identify the interests and expectations of stakeholders towards the Coaching Program. This information is gathered through interview with the selected stakeholders.

### 3.3.3 Objective Identification

Objectives are obtained from stakeholder requirements. Each stakeholder requirement will be reviewed and analyzed to generate its objective. The objective will be the input for performance indicator identification.

### 3.3.4 Performance Indicator Identification

Performance indicators are translated from the objectives of the Coaching Program. The indicators are identified through literature review and brainstorming with the experts of performance measurement.

### 3.3.5 Performance Measurement Framework Development

Prior to identify performance criteria and indicators for Kampung, any information related to Kampung is needed such as the definition of Kampung, the criteria of Kampung and the characteristic of Kampung. This information is gathered through interview with officers of Dinas Perdagangan dan Perindustrian Kota Surabaya, the coaches and literature review. The next step is reviewing literatures related to performance measurement for any form of businesses similar to a Kampung. It aims to find the performance criteria and indicators for a Kampung. The selected performance criteria and indicators for a Kampung are also used for Micro Enterprises, as a Kampung is a composed of Micro Enterprises. These performance criteria and indicators are then validated by the experts and Dinas Perdagangan dan Perindustrian Kota Surabaya.



### 3.3.6 Weighting Process

In this stage, the validated performance criteria and indicators are weighted by the expertise using pairwise comparison questionnaire in order to determine the most performance critical criteria and indicators. The questionnaire adopts one to nine-Saaty Scale in Analytic Hierarchy Process (AHP). The result is processed using Expert Choice Software.

### 3.3.7 Performance Indicator Properties Identification

After being identified, performance indicators will be described by their properties, namely Indicator name, Objective, Target, Formula, Measurement Unit, Measurement, Frequency, Party who Measures, Data Source, KPI Owner, Note and Comment, Scoring System.

### 3.3.8 Validation

The weighted performance criteria and indicator is validated by the expertise and Dinas Perdagangan dan Perindustrian Kota Surabaya. This step also allows Dinas Perdagangan dan Perindustrian Kota Surabaya to add or delete some indicators.

## **3.4 Performance Measurement Implementation**

In this stage, performance measurement system for Micro Enterprises and Kampung/Sentra is brought into simple dashboard. The dashboard is made using *Microsoft Excel* Software with friendly user interface and easy operations.

After being developed, performance measurement system application is tested using the available information of Kampung and Micro Enterprises from Dinas Perdagangan dan Perindustrian Kota Surabaya. The result will indicate which Micro Enterprise and Kampung/Sentra with good or bad performance. This stage includes scoring system process and Traffic light System.

### **3.5 Data Interpretation**

In this section, the result of developed performance measurement system for Micro Enterprise and Kampung/Sentra and the result of performance measurement implementation will be reviewed.

### **3.6 Conclusion and Recommendation**

This section draws conclusions from data analysis and makes recommendation based on data analysis.

#### **3.6.1 Conclusion**

Conclusion section discusses the result of this final project, which is the Performance Measurement System for Kampung and Micro Enterprise. It also provides the report on how the result of this final project can solve the problem and improve the existing situation of Kampung and Micro Enterprise Coaching Program.

#### **3.6.2 Recommendation**

Recommendation is divided into two sections; Recommendation for Implementing the Result of Final Project and Recommendation for Future Research.

Recommendation for implementing the result of final project includes the steps that should be done as a result of this final project. As for recommendation for future research, it includes the actions that future researcher should take as a result of this final project and the kinds of additional research might be needed.

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## **CHAPTER 4**

### **PERFORMANCE MEASUREMENT SYSTEM DEVELOPMENT AND IMPLEMENTATION**

This chapter contains of the process of gathering data and information as well as the process of developing performance measurement system.

#### **4.1 Performance Measurement System Development**

Data and information in this gathered from interview, document review and discussion with key people of Dinas Perdagangan dan Perindustrian Kota Surabaya.

##### **4.1.1 General Overview of Coaching Program**

Dinas Perdagangan dan Perindustrian Kota Surabaya is one of government bureau in Surabaya located in Jalan Arif Rahman Hakim 99 Surabaya. It is responsible to execute the Surabaya's government affair and other duties in the area of trade and industry according to the autonomy regulation. There are currently four divisions as portrayed in Figure 4.1; Trade Division, Industry Division, Promotion & Company Registration Division and UPTD. One of the roles of Dinas Perdagangan dan Perindustrian Kota Surabaya is to give a development facility for Micro Enterprise in Surabaya. This duty is specifically addressed for Industry Division. Therefore, a program named "Coaching Program" is created.

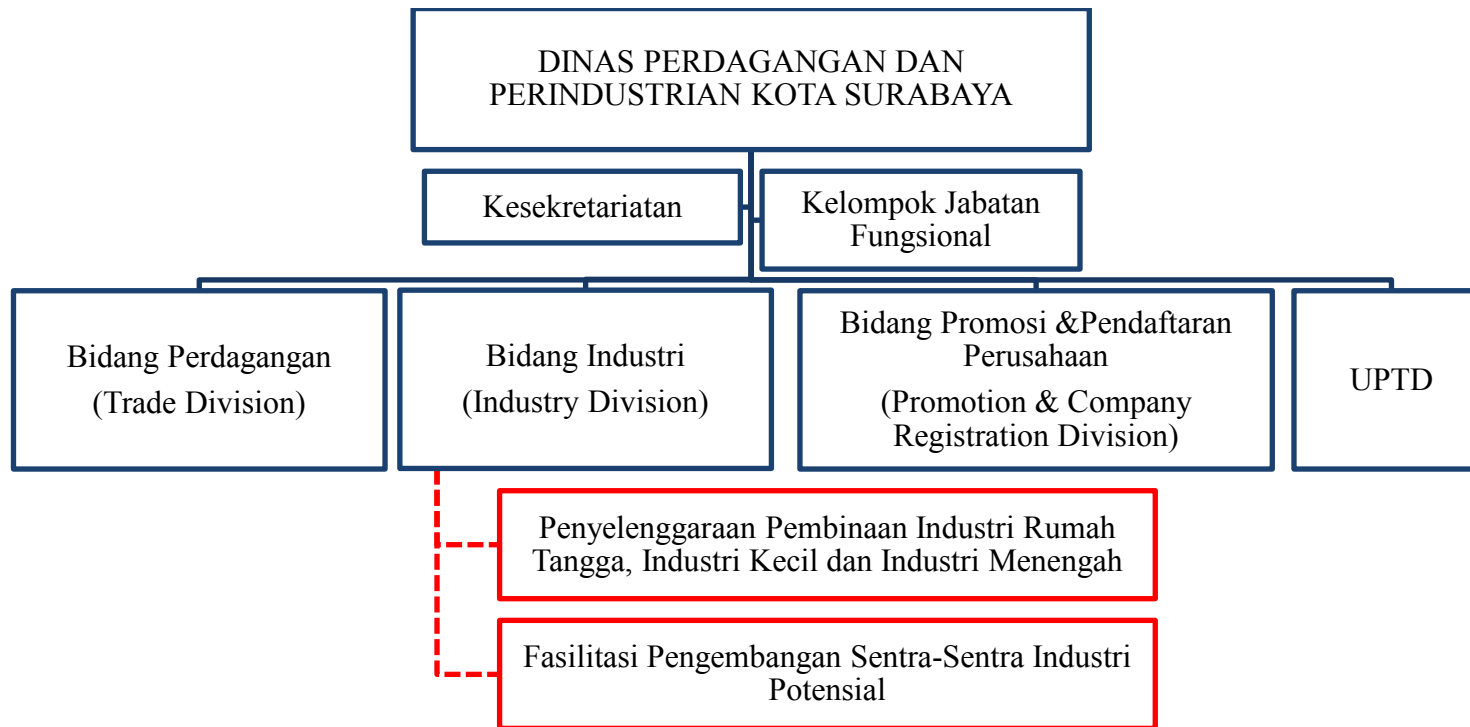


Figure 4.1 Organizational Structure of Dinas Perdagangan dan Perindustrian Kota Surabaya  
 (Source: Dinas Perdagangan dan Perindustrian Kota Surabaya)

The Coaching Program has been started since 2010. There are currently 8 people employed to coach micro enterprises called as the Coach. Their tasks are:

- Identifying the existing condition of micro enterprises that are being coached
- Identifying the problems in micro enterprises that are being coached
- Giving solution to problems faced by micro enterprises that are being coached
- Coaching or helping micro enterprises to develop their business
- Analyzing the business process of micro enterprises that are being coached
- Reporting the progress of micro enterprises that are being coached every two weeks, monthly, and every six months and annually.

Currently, there are 10 Kampung and 16 Sentra being coaching under the Coaching Program as listed in Table 4.1.

Table 4.1 Kampung and Sentra under the Coaching Program of Dinas Perdagangan dan Perindustrian in 2015

No	Kampung/Sentra	Name	Number of Micro Enterprises
1	Kampung 1	Kampung Bordir	11
2	Kampung 2	Kampung Handicraft	7
3	Kampung 3	Kampung Keripik Tempe	6
4	Kampung 4	Kampung Kerupuk	10
5	Kampung 5	Kampung Kue	27
6	Kampung 6	Kampung Paving	2
7	Kampung 7	Kampung Penjahitan	14
8	Kampung 8	Kampung Sepatu	150
9	Kampung 9	Kampung Tas	70
10	Kampung 10	Kampung Tempe	36
11	Sentra 1	Sentra Abon	3
12	Sentra 2	Sentra Bakpia	3
13	Sentra 3	Sentra Batik Dukuh Kupang	3
14	Sentra 4	Sentra Batik Karah	3

Table 4.1 Kampung and Sentra under the Coaching Program of Dinas Perdagangan dan Perindustrian in 2015 (cont.)

No	Kampung/Sentra	Name	Number of Micro Enterprises
15	Sentra 5	Sentra Penjahitan	0
16	Sentra 6	Sentra Ikat Jumput	3
17	Sentra 7	Sentra Kerajinan Kerang	5
18	Sentra 8	Sentra Kerupuk Kembang	17
19	Sentra 9	Sentra Kue	17
20	Sentra 10	Sentra Olahan Herbal	10
21	Sentra 11	Sentra Olahan Laut	7
22	Sentra 12	Sentra Sepatu	3
23	Sentra 13	Sentra Sepatu Kulit	7
24	Sentra 14	Sentra Shompia	6
25	Sentra 15	Sentra Tempe Bendul Merisi	10
26	Sentra 16	Sentra Tempe Kedung Mangu	8

Before joining the Coaching Program, all micro enterprises have agreed to regulations that they will be coached under the concept of community-based.

#### 4.1.2 Vision and Mission of Coaching Program

The vision and missions of the Coaching Program of Dinas Perdagangan dan Perindustrian Kota Surabaya are:

**Vision:** Creating Competitive Micro Enterprises with the Concept of Community-Based

**Mission:**

- Recruiting competent Coaches to coach Micro Enterprises
- Collecting data and information of Micro Enterprises
- Regularly visiting Micro Enterprises that are being coached
- Selectively fulfilling the needs of Micro Enterprises that are being coached
- Monitoring the achievement of Micro Enterprises that are being coached

#### 4.1.3 Existing System of Coaching Program

Since the Coaching Program follows the concept of ‘Community Based’, Dinas Perdagangan dan Perindustrian Kota Surabaya is interested to evaluate the performance of Kampung and Sentra instead of only the performance of Micro Enterprises. However, There is no clear system to evaluate the performance of Kampung and Sentra as well as micro enterprises under the Coaching Program.

Currently, Industry Division has no clear mechanism to monitor how far the Coaching Program has been progressing.

#### 4.1.4 Business Level Identification

Integrated Performance Measurement System (IPMS) method divides the organization structure into four levels as described below.



Figure 4.2 Business Level of Coaching Program

- o Business corporate : Dinas Perdagangan dan Perindustrian Kota Surabaya  
Dinas Perdagangan dan Perindustrian is the highest level in organization structure which is responsible as policy and strategy makers. It is also responsible to manage the business and all divisions.



- Business units: Industry Division

There are four business units in Dinas Perdagangan dan Perindustrian Kota Surabaya. However, only Industry Division is related to this final project. This division is the owner of and responsible for Coaching Program. Any regulations and strategies related to industrial activities in Surabaya including the Coaching Program are carried out by Industry Division.

- Business processes: The Coaching Program

The business processes of Coaching Program includes monitoring the activity of the Coaches, monitoring the performance of Micro Enterprises that are being coached, formulating the right support for Micro Enterprises that are being coached and upgrading the competence of the Coaches.

- Activities: All activities related to the Coaching Program

The activities include regular visit of the Coaches to Micro Enterprises that are being coached and other operational activities related to the Coaching Program.

#### 4.1.5 Stakeholder Requirement Identification

In order to obtain stakeholder requirement toward micro enterprises achievement, it is essential to identify the right stakeholders. Stakeholders are identified according to each organization level which has been described before. They are then classified into two; internal and external stakeholders as follow.

- Internal Stakeholder:

- Head of Dinas Perdagangan dan Perindustrian Kota Surabaya
- Staff of Industry Division of Dinas Perdagangan dan Perindustrian Kota Surabaya
- The Coaches

- External stakeholder:

- The owner of micro enterprises

Among four stakeholders, only requirements from key person of Industry Division will be considered as the driver to develop performance measurement system. It is because the Coaching Program belongs to Industry Division and the performance measurement system development is intended on behalf of Industry

Division. Stakeholder requirement is obtained through interview and discussion with key person of Industry Division in Dinas Perdagangan dan Perindustrian Kota Surabaya as presented in Table 4.2.

Table 4.2 Stakeholder's Requirement

No	Stakeholder Requirement
1	There is revenue growth
2	Strong profitability
3	Increasing production
4	Wide market scope
5	Able to produce an attractive product, thus it has additional value in customer
6	Product is accepted widely by customer
7	Employees get training to increase their competence
8	Employees are able to handle their job well
9	Micro enterprises are able to find funding source
10	Micro enterprises are able to increase the production, thus they should be able to increase the working capital
11	Micro enterprises are able to use information and communication technology in order to support their business
12	There is production technology utilization
13	There is clear job description for employee
14	Employees are able to know their responsibility and right clearly
15	There is clear and complete financial record
16	Micro enterprises are able to collaborate with supplier
17	Decreasing unemployment in the area near micro enterprise or Kampung/Sentra
18	Micro enterprises are able to get business licenses and certifications
19	There is relationship between micro enterprises, with each benefiting from each other

All of stakeholder requirements are then reviewed to avoid any similarity among requirements.

#### 4.1.6 Objectives Identification

The next process is transforming stakeholder requirements into a set of objectives. This aims to help translate what stakeholder needs into the ends that

stakeholder wants micro enterprise to achieve. The objectives can be seen in Table 4.3.

Table 4.3 Objectives towards Micro Enterprises under the Coaching Program

No	Stakeholder Requirement	Objectives
1	There is revenue growth	To increase the sales and profitability
2	Strong profitability	
3	Increasing production	To increase the production capacity
4	Wide market scope	To increase the number of customer and to widen the market
5	Able to produce an attractive product, thus it has additional value in customer	To increase the product support and customer service
6	Product is accepted widely by customer	
7	Employees get training to increase their competence	To increase the employees' competence
8	Employees are able to handle their job well	
9	Micro enterprises are able to find funding source	To know the ability of Micro Enterprise to get funding
10	Micro enterprises are able to increase the production, thus they should be able to increase the working capital	
11	Micro enterprises are able to use information and communication technology in order to support their business	To monitor the growth of Micro Enterprise
12	There is production technology utilization	
13	There is clear job description for employee	To keep the production process running smoothly
14	Employees are able to know their responsibility and right clearly	
15	There is clear and complete financial record	To know the ability of micro enterprise in managing the financial
16	Micro enterprises are able to collaborate with supplier	To know the ability of micro enterprise to seek for supplier
17	Micro enterprises are able to collaborate with supplier	There is benefit for the surrounding area of micro enterprise or Kampung/Sentra
18	Decreasing unemployment in the area near micro enterprise or Kampung/Sentra	

Table 4.3 Objectives towards Micro Enterprises under the Coaching Program (cont.)

No	Stakeholder Requirement	Objectives
19	Micro enterprises are able to get business licenses and certifications	To help micro enterprises in getting business licenses and certifications
20	There is relationship between micro enterprises, with each benefiting from each other	To create relationship between micro enterprises, with each benefiting from each other
21	There is a particular advantage of creating Coaching Program based on community-based	To monitor the benefits of creating a community-based Coaching Program

#### 4.1.7 Performance Indicator Identification

After obtaining objectives, the next process is identifying performance indicator in order to measure the achievement of each objectives. Performance indicators are obtained through literature review and brainstorming with the experts of performance measurement.

Table 4.4 Performance Indicator Identification

Objective		Performance Indicator	
1	To increase the sales and profitability	1	Revenue growth
		2	Number of marketing event/exhibition participated
2	To increase the production capacity	3	Productivity of Micro Enterprise
3	To increase the number of customer and to widen the market	4	Market spread
		5	Availability of customer growth
4	To increase the product support and customer service	6	Order and delivery service
		7	Availability of package and product design innovation
		8	Availability of new product type
5	To increase the employees' competence	9	Number of workers with minimum education of SMA
		10	Number of training participated
		11	Number of workers participating in training

Table 4.4 Performance Indicator Identification (cont.)

Objective		Performance Indicator	
6	To know the ability of Micro Enterprise to get funding	12	Ever get fund/credit from financial institution
		13	Credit proportion to owner's equity
		14	Number of funding resource other than owner's equity
		15	Working capital growth
7	To monitor the growth of Micro Enterprise	16	Number of workers
		17	Percentage of the increase for the number of workers
		18	Number of semi-automatic and automatic equipment
8	To keep the production process running smoothly	19	Availability of job specialization
9	To know the ability of micro enterprise in managing the financial	20	Availability of financial record
		21	Completeness of financial record
10	To know the ability of micro enterprise to seek for supplier	22	Availability of constant supplier
11	There is benefit for the surrounding area of micro enterprise or Kampung/Sentra	23	Number of workers who come from the area of Kampung/Sentra
		24	Availability of internationally material purchase
12	To help micro enterprises in getting business licenses and certifications	25	Number of business license
		26	Number of product certification
		27	Availability of trademark
		28	Type of business entity
13	To create relationship between micro enterprises, with each benefiting from each other	29	Availability of cooperation among micro enterprises within a Kampung/Sentra
		30	Number of meeting held by Kampung
14	To monitor the benefits of creating a Coaching Program using community-based concept	31	Number of micro enterprises in a Kampung/Sentra
		32	Percentage of developed micro enterprises
		33	Percentage of declining micro enterprises

The performance indicators are selected with some criteria as follows.

- The indicators must be able to be quantified. It means that the data collected is accountable
- The indicators must be able to be collected in easy way. Since the source of the data is micro enterprises which most of them doesn't pay attention to record any data related to the business, it is better to eliminate the complex indicator in order to avoid unreliable data.

#### 4.1.8 Performance Measurement Framework Development

After the performance indicators are identified, each of them needs to be deployed to more-general criteria. These general criteria are created based on Input-Process-Output framework and can be seen in Figure 4.3. While the deployment of performance indicators to the criteria is presented in Table 4.5. These indicators are used to show the progress of Coaching Program by monitoring the achievement of micro enterprises. However, there are several indicators that are not included, as they can be used to monitor micro enterprise but to monitor Kampung/Sentra. Further explanation can be found in the next paragraph.

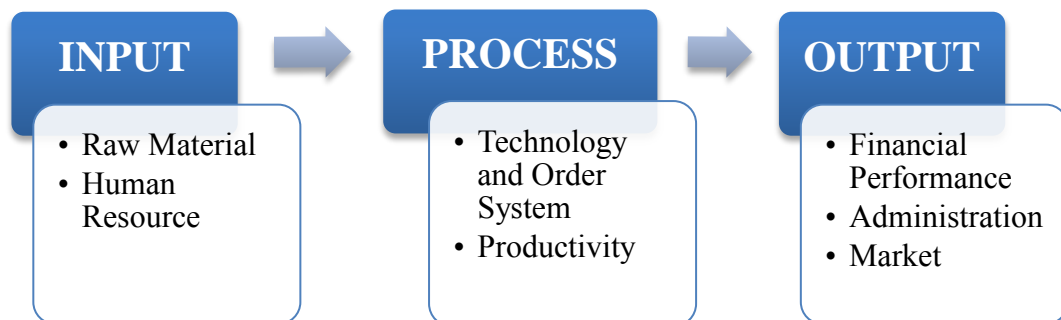


Figure 4.3 Performance Criteria based on Input-Process-Output Classification

Table 4.5 Framework of Performance Measurement for Micro Enterprises

<b>CRITERIA</b>	<b>CODE</b>	<b>INDICATOR</b>
<b>Raw Material</b>	ME.R1	Availability of constant supplier
	ME.R2	Availability of internationally material purchase
<b>Human Resource</b>	ME.HR1	Number of workers
	ME.HR2	Percentage of the increase for the number of workers
	ME.HR3	Number of workers with minimum education of SMA
	ME.HR4	Number of workers who come from the area of Kampung/Sentra
	ME.HR5	Number of training participated
	ME.HR6	Number of workers participating in training
<b>Technology and Order System</b>	ME.T1	Number of semi-automatic and automatic equipment
	ME.T2	Order and delivery service
<b>Productivity</b>	ME.P1	Productivity of Micro Enterprise
	ME.P2	Availability of customer growth
	ME.P3	Availability of package and product design innovation
	ME.P4	Availability of new product type
<b>Financial Performance</b>	ME.F1	Revenue growth
	ME.F2	Working capital growth
	ME.F3	Ever get fund/credit from financial institution
	ME.F4	Credit proportion to owner's equity
	ME.F5	Number of funding resource other than owner's equity
<b>Administration</b>	ME.A1	Availability of financial record
	ME.A2	Completeness of financial record
	ME.A3	Availability of job specialization
	ME.A4	Number of business license
	ME.A5	Number of product certification
	ME.A6	Availability of trademark
	ME.A7	Type of business entity

Table 4.5 Framework of Performance Measurement for Micro Enterprises (cont.)

<b>CRITERIA</b>	<b>CODE</b>	<b>INDICATOR</b>
<b>Market</b>	ME.M1	Market spread
	ME.M2	Number of marketing event/exhibition participated

The performance indicators for micro enterprise in Table 4.5 above aims to show the progress of Coaching Program and how far micro enterprises can achieve the expectation of Dinas Perdagangan dan Perindustrian Kota Surabaya after being coached. However, Dinas Perdagangan dan Perindustrian Kota Surabaya is also interested to know the progress of Coaching Program towards Kampung/Sentra. Therefore, a set of new performance indicators is created to accommodate this need. The indicators for Kampung/Sentra are basically the aggregate of the indicators for micro enterprises.

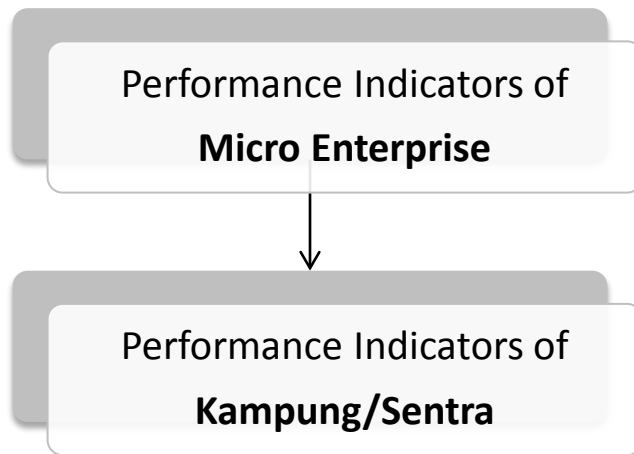


Figure 4.4 The Aggregation Mechanism

As example, indicator “Availability of constant supplier” will be replaced as “Percentage of micro enterprises (in a Kampung/Sentra) who have constant supplier”. However, there are additional indicators for Kampung/Sentra which come from indicator number 31-35 in Table 4.4. The additional indicators are grouped under new criteria named “Society”. The complete result of performance indicators for Kampung/Sentra is presented in Table 4.6.



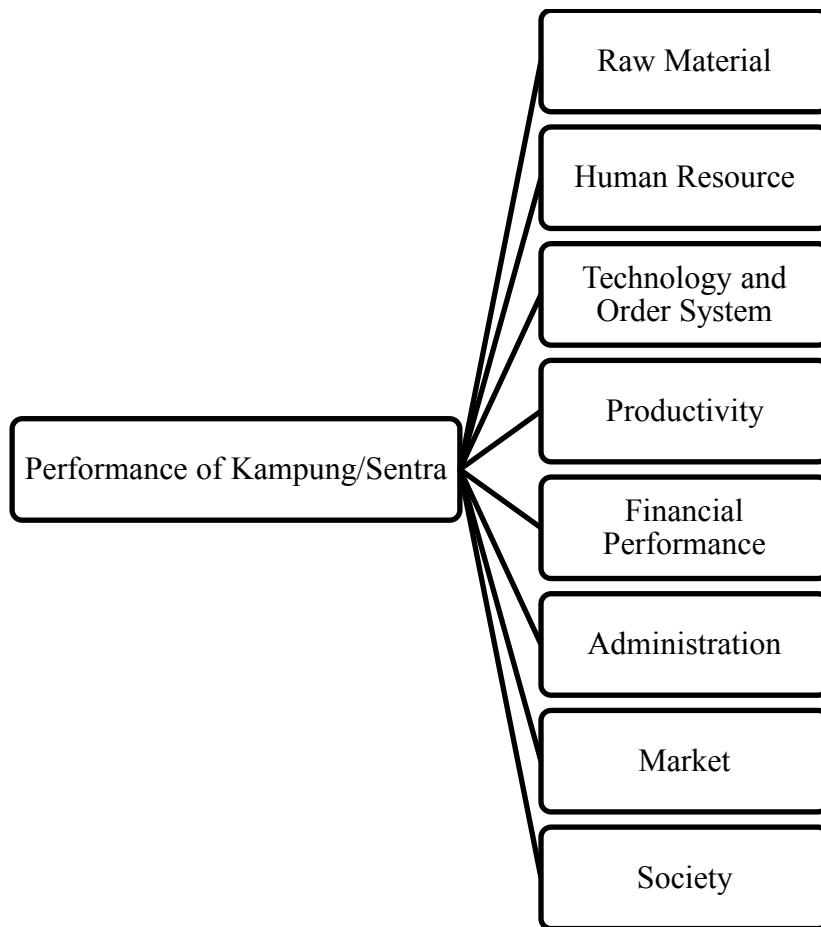


Figure 4.5 Framework of Performance Measurement for a Kampung/Sentra

Table 4.6 Framework of Performance Indicator for Kampung/Sentra

<b>CRITERIA</b>	<b>CODE</b>	<b>INDICATOR</b>
<b>Raw Material</b>	K.R1	Percentage of Micro Enterprises which have constant supplier
	K.R2	Percentage of Micro Enterprises which have internationally material purchase

Table 4.6 Framework of Performance Measurement for Micro Enterprises (cont.)

<b>CRITERIA</b>	<b>CODE</b>	<b>INDICATOR</b>
<b>Human Resource</b>	K.HR1	Average number of workers
	K.HR2	Average percentage of the increase for the number of workers
	K.HR3	Percentage of workers with minimum education of SMA
	K.HR4	Percentage of workers who come from the area of Kampung/Sentra
	K.HR5	Average number of trainings participated
	K.HR6	Percentage of workers participating in training
<b>Technology and Order System</b>	K.T1	Average number of semi-automatic and automatic equipment
	K.T2	Average performance score for order and delivery service
<b>Productivity</b>	K.P1	Average of productivity
	K.P2	Percentage of micro enterprises with customer growth
	K.P3	Percentage of micro enterprises with new product type
	K.P4	Average performance score for package and product design innovation
<b>Financial Performance</b>	K.F1	Average of revenue growth
	K.F2	Average of working capital growth
	K.F3	Percentage of micro enterprises which ever get fund/credit from financial institution
	K.F4	Average of credit proportion to owner's equity
	K.F5	Average number of funding resource other than owner's equity
<b>Administration</b>	K.A1	Percentage of micro enterprises with financial record
	K.A2	Percentage of micro enterprises with complete financial record (with the record of in-out transaction)
	K.A3	Percentage of micro enterprises with job specialization
	K.A4	Average number of business license

Table 4.6 Framework of Performance Measurement for Micro Enterprises (cont.)

<b>CRITERIA</b>	<b>CODE</b>	<b>INDICATOR</b>
	K.A5	Average number of product certification
	K.A6	Percentage of micro enterprise with trade mark
	K.A7	Percentage of micro enterprises in form of UD
<b>Market</b>	K.M1	Percentage of micro enterprise with market spread of Province area
	K.M2	Average number of marketing event/exhibition participated
<b>Society</b>	K.K1	Number of micro enterprises in a Kampung/Sentra
	K.K2	Availability of cooperation among micro enterprises within a Kampung/Sentra
	K.K3	Number of meeting held by Kampung/Sentra
	K.K4	Percentage of developed micro enterprises
	K.K5	Percentage of declining micro enterprises

#### 4.1.9 Weighting Process

Weighting process has a purpose of generating a weight (value) for each criteria and indicators according to its importance. The higher the weight, the more important the performance criteria or performance indicator is. This process uses Analytical Hierarchy Process (AHP) method to build the hierarchy of performance criteria as well as performance indicators. The weight is constructed using the score taken from pairwise comparison's questionnaire. In this case, there are two experts who contribute to fill the pairwise comparison questionnaire. The result example of the pairwise questionnaire for performance criteria from one expert can be seen in Table 4.7 and the complete pairwise comparison questionnaire results are attached in Enclosure 3. Pairwise comparisons of both expert are then combined in *Expert Choice* Software to obtain a single value.

Table 4.7 Pairwise Comparison Result for Performance Criteria (Expert #1)

CRITERIA	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	CRITERIA
Raw Material														v				Human Resource
Raw Material														v				Technology
Raw Material													v					Productivity
Raw Material													v					Financial Performance
Raw Material						v												Administration
Raw Material															v			Market
Raw Material					v													Society
Human Resource		v																Technology
Human Resource			v															Productivity
Human Resource								v										Financial Performance
Human Resource						v												Administration
Human Resource								v										Market
Human Resource				v														Society
Technology												v						Productivity
Technology														v				Financial Performance
Technology													v					Administration
Technology													v					Market
Technology					v													Society
Productivity									v									Financial Performance
Productivity					v													Administration
Productivity									v									Market
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Financial Performance									v									Market
Financial Performance					v													Society
Administration													v					Market
Administration					v													Society
Market					v													Society

While performing pairwise comparisons, inconsistency may appear. A perfectly consistent comparison should have inconsistency value of 0 (zero), but small inconsistency (less than 0.1) is tolerated. If inconsistency value appears to be larger than 0.1, a adjustment is needed until the value lies below 0.1. In this process, all pairwise comparisons are checked and adjusted (if needed) in *Expert Choice* Software to avoid inconsistency value larger than 0.1. As result, the final inconsistency values of all pairwise comparisons appear to be less than 0.1. Figure 4.6 shows one of the inconsistency values from the comparison of performance criteria. The complete inconsistency value can be seen in Enclosure 3.

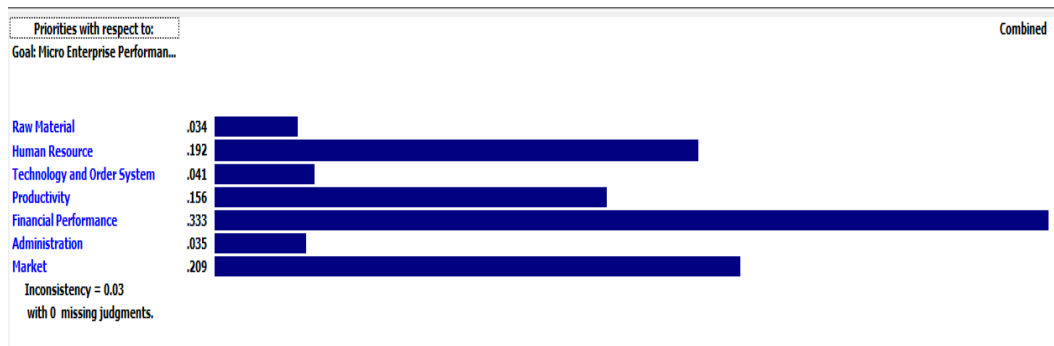


Figure 4.6 Weight and inconsistency Value with Respect to Micro Enterprise Performance Criteria

After checking the inconsistency value, the next is to get the weight of criteria and performance indicators using *Expert Choice* Software. The results are presented in Table 4.8 and Table 4.9.

Table 4.8 Weighted Criteria and Indicator for Micro Enterprise

CRITERIA	INDICATOR	WEIGHT	VECTOR WEIGHT
<b>Raw Material</b>		<b>0.034</b>	
ME.R1	Availability of constant supplier	0.145	0.00493
ME.R2	Availability of internationally material purchase	0.855	0.02907
<b>Human Resource</b>		<b>0.192</b>	
ME.HR1	Number of workers	0.063	0.011655
ME.HR2	Percentage of the increase for the number of workers	0.11	0.02035

Table 4.8 Weighted Criteria and Indicator for Micro Enterprise (cont.)

CRITERIA	INDICATOR	WEIGHT	VECTOR WEIGHT
<b>Human Resource</b>		<b>0.192</b>	
ME.HR1	Number of workers	0.063	0.011655
ME.HR2	Percentage of the increase for the number of workers	0.11	0.02035
ME.HR3	Number of workers with minimum education of SMA	0.194	0.03589
ME.HR4	Number of workers who come from the area of Kampung	0.26	0.0481
ME.HR5	Number of training participated	0.75	0.13875
ME.HR6	Number of workers participating in training	0.299	0.055315
<b>Technology and Order System</b>		<b>0.041</b>	
ME.T1	Number of semi-automatic and automatic equip.	0.776	0.039576
ME.T2	Order and delivery service	0.224	0.011424
<b>Productivity</b>		<b>0.156</b>	
ME.P1	Productivity of IKM	0.367	0.056518
ME.P2	Availability of customer growth	0.442	0.068068
ME.P3	Availability of new product type	0.109	0.016786
ME.P4	Availability of package & product design innov.	0.083	0.012782
<b>Financial Performance</b>		<b>0.333</b>	
ME.F1	Revenue growth	0.557	0.170999
ME.F2	Working capital growth	0.099	0.030393
ME.F3	Ever get fund/credit from financial institution	0.131	0.040217
ME.F4	Credit proportion to owner's equity	0.12	0.03684
ME.F5	Number of funding resource other than owner's equity	0.093	0.028551
<b>Administration</b>		<b>0.035</b>	
ME.A1	Availability of financial record	0.214	0.008988
ME.A2	Completeness of financial record	0.104	0.004368
ME.A3	Availability of job specialization	0.354	0.014868
ME.A4	Number of business license	0.063	0.002646
ME.A5	Number of product certification	0.105	0.00441
ME.A6	Availability of trademark	0.094	0.003948
ME.A7	Type of business entity	0.066	0.002772
<b>Market</b>		<b>0.209</b>	
ME.M1	Market spread	0.75	0.15225
ME.M2	Number of marketing event/exh. participated	0.25	0.05075
<b>Total</b>			<b>1.000</b>

Table 4.9 Weighted Criteria and Indicator for Kampung/Sentra

CRITERIA	INDICATOR	WEIGHT	VECTOR WEIGHT
<b>Raw Material</b>		0.043	
K.R1	Percentage of Micro Enterprises which have constant supplier	0.145	0.00493
K.R2	Percentage of Micro Enterprises which have internationally material purchase	0.855	0.02907
<b>Human Resource</b>		0.198	
K.HR1	Average number of workers	0.063	0.011655
K.HR2	Average percentage of the increase for the number of workers	0.11	0.02035
K.HR3	Percentage of workers with minimum education of SMA	0.194	0.03589
K.HR4	Percentage of workers who come from the area of Kampung/Sentra	0.26	0.0481
K.HR5	Average number of trainings participated	0.75	0.13875
K.HR6	Percentage of workers participating in training	0.299	0.055315
<b>Technology and Order System</b>		0.045	
K.T1	Average number of semi-automatic and automatic equipment	0.776	0.039576
K.T2	Average performance score for order and delivery service	0.224	0.011424
<b>Productivity</b>		0.144	
K.P1	Average of productivity	0.367	0.056518
K.P2	Percentage of micro enterprises with customer growth	0.442	0.068068
K.P3	Percentage of micro enterprises with new product type	0.109	0.016786
K.P4	Average performance score for package and product design innovation	0.083	0.012782
<b>Financial Performance</b>		0.273	
K.F1	Average of revenue growth	0.557	0.170999
K.F2	Average of working capital growth	0.099	0.030393
K.F3	Percentage of micro enterprises which ever get fund/credit from financial institution	0.131	0.040217
K.F4	Average of credit proportion to owner's equity	0.12	0.03684
K.F5	Average number of funding resource other than owner's equity	0.093	0.028551

Table 4.9 Weighted Criteria and Indicator for Kampung/Sentra (cont.)

CRITERIA	INDICATOR	WEIGHT	VECTOR WEIGHT
<b>Administration</b>		0.043	
K.A1	Percentage of micro enterprises with financial record	0.214	0.008988
K.A2	Percentage of micro enterprises with complete financial record (with the record of in-out transaction)	0.104	0.004368
K.A3	Percentage of micro enterprises with job specialization	0.354	0.014868
K.A4	Average number of business license	0.063	0.002646
K.A5	Average number of product certification	0.105	0.00441
K.A6	Percentage of micro enterprise with trade mark	0.094	0.003948
K.A7	Percentage of micro enterprises in form of UD	0.066	0.002772
<b>Market</b>		0.227	
K.M1	Percentage of micro enterprise with market spread of Province area	0.75	0.15225
K.M2	Average number of marketing event/exhibition participated	0.25	0.05075
<b>Society</b>		0.028	
K.K1	Number of micro enterprises in a Kampung/Sentra	0.111	0.002775
K.K2	Availability of cooperation among micro enterprises within a Kampung/Sentra	0.519	0.012975
K.K3	Number of meeting held by Kampung/Sentra	0.056	0.0014
K.K4	Percentage of developed micro enterprises	0.236	0.0059
K.K5	Percentage of declining micro enterprises	0.078	0.00195
<b>Total</b>			<b>1.000</b>

The frameworks of performance indicators to monitor the Coaching Program for Micro Enterprise and Kampung/Sentra are illustrated in Figure 4.7 and Figure 4.8.



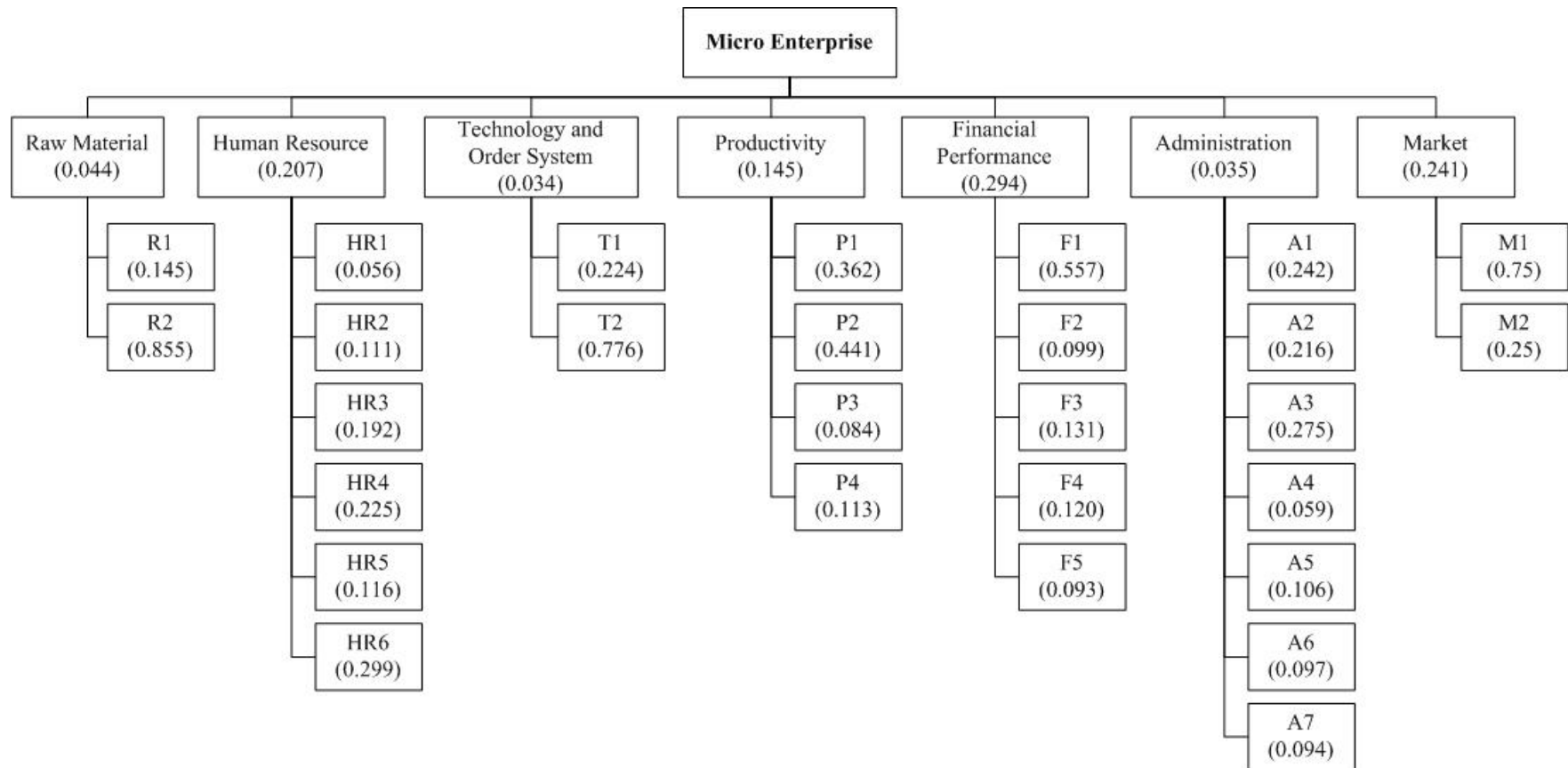


Figure 4.7 Performance Measurement Hierarchy for Micro Enterprise

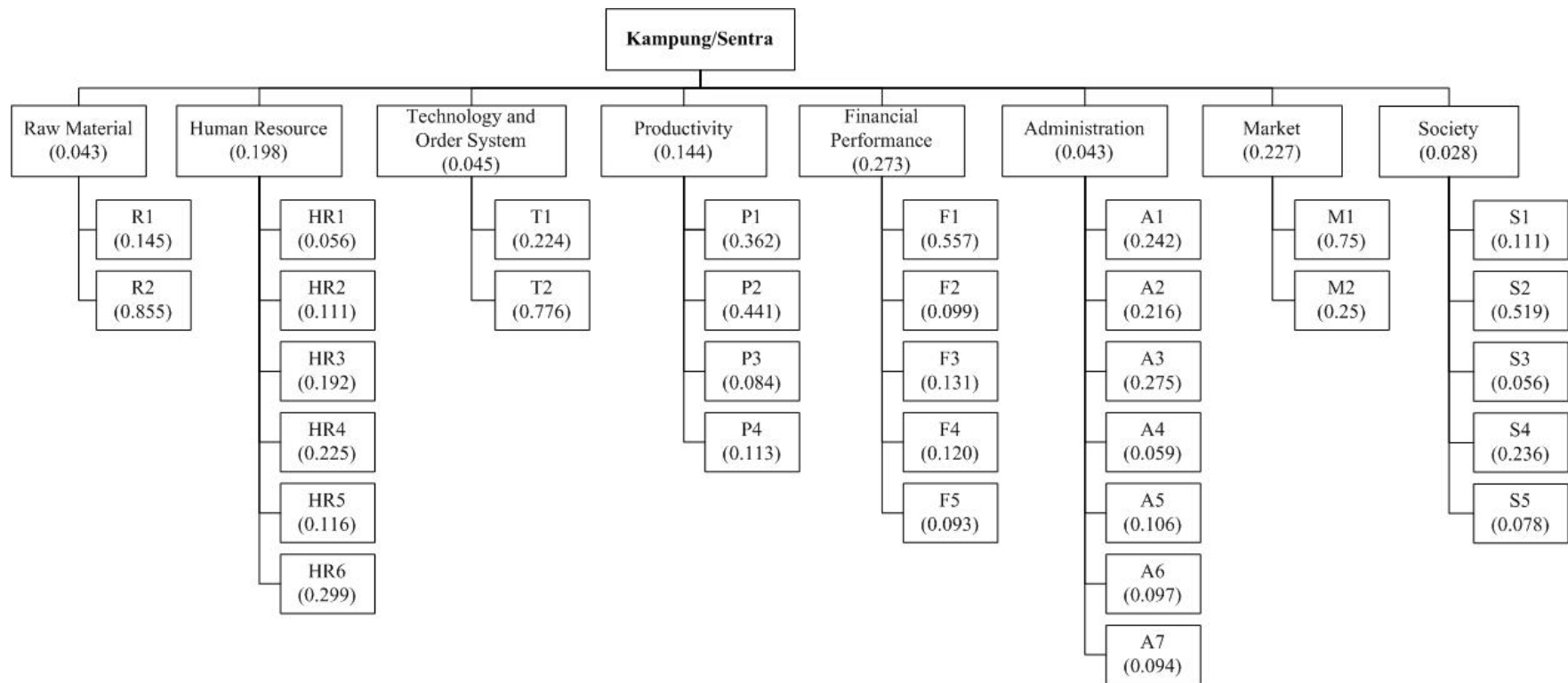


Figure 4.8 Performance Measurement Hierarchy for Kampung/Sentra

#### 4.1.10 Performance Indicator Properties

After being weighted, performance indicators are specified based on their properties as seen in Table 4.10 and Table 4.11. The properties are as follows.

1. Indicator
2. Objective
3. Target
4. Formula
5. Measurement Unit
6. Measurement Frequency
7. Party who Measures
8. Data Source
9. Performance Indicator Owner
10. Note and Comment
11. Scoring System

Table 4.10 Performance Indicator Properties for Micro Enterprise

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
<b>Raw Material</b>	ME.R1	1: Yes	To monitor whether micro enterprise is able to maintain the continuity of raw material and production process	1: Yes, 0: No	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.R2	1: No	To monitor the ability of micro enterprise of finding supplier	1: No, 0: Yes	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
<b>Human Resource</b>	ME.HR1	4	To monitor the number of workers employed by micro enterprise	[Number of workers]	Person	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.HR2	1%	To measure the ability of micro enterprise to employ workers	$\frac{\text{Number of workers in this month}(t) - \text{Number of workers last month}(t-1)}{\text{Number of workers last month}(t-1)}$	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.HR3	1	To measure the ability of micro enterprise to employ educated workers	[Number of workers with minimum education of SMA]	Person	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better

Table 4.10 Performance Indicator Properties for Micro Enterprise (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
	ME.HR4	2	To measure the positive impact of the existence of micro enterprise which is proved by workers coming from the area of Kampung/Sentra	[Number of workers who come from the area of Kampung /Sentra (proved with ID card)]	Person	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.HR5	2	To measure the number of training which have been participated	[Number of training participated in a month]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.HR6	2	To measure the number of workers participating in training	[Number of workers who have participated in training]	Person	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
<b>Technology and Order System</b>	ME.T1	2	To measure the ability of micro enterprise of equipment ownership	[Number of semi-automatic and automatic equipment]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.T2	1: There is order service or delivery service	To measure the ability of micro enterprise of giving extra service for customer in form of order and delivery service	[Total score of order and delivery performance]. <b>Order</b> -> 1: Order can be done by communication (telp, SMS, social media), 0: Order needs to be done in the place. <b>Delivery</b> -> 1: There is delivery service, 0: There is no delivery service.	-	Mouthy	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better

Table 4.10 Performance Indicator Properties for Micro Enterprise (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
Productivity	ME.P1	50%	To measure the productivity of micro enterprise	[Used production capacity / Installed production capacity]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.P2	1: Yes	To measure the ability of micro enterprise to increase the number of customer	1: If [Number of customer in this month - Number of customer last month] > 0 , then Yes. 0: Otherwise No.	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.P3	1: Yes	To measure the ability of micro enterprise of producing new product type	1: Yes, 0: No	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.P4	2: There is package <b>and</b> product design innovation	To measure the ability of micro enterprise in developing the package and product design which give additional value to product	[Total score of package and product design innovation performance]. <b>Package</b> -> 1: There is package innovation, 0: There is no package innovation. <b>Product Design</b> -> 1: There is product design innovation, 0: There is no product design innovation.	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better

Table 4.10 Performance Indicator Properties for Micro Enterprise (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
<b>Financial Performance</b>	ME.F1	2%	To measure the revenue growth	$\frac{\text{Amount of revenue in this month}(t) - \text{Amount of revenue last month}(t-1)}{\text{Amount of revenue last month}(t-1)}$	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.F2	2%	To measure the growth of working capital	$\frac{[\text{Amount of working capital in this month}(t) - \text{Amount of working capital last month}(t-1)]}{\text{Amount of working capital in this month}(t-1)}$	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.F3	1: Yes	To know whether micro enterprise have ever got fund or credit from financial institution	1: Yes, 0: No	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.F4	5%	To measure the amount of credit of micro enterprise compared to owner's equity	$\frac{\text{Amount of credit}}{\text{Amount of owner's equity}}$	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.F5	1	To know the number of funding source that is helping micro enterprise	[Number of funding resource in this period other than owner's equity]	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better

Table 4.10 Performance Indicator Properties for Micro Enterprise (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
Administration	ME.A1	1: Yes	To know the whether micro enterprise is able to record financial report or not	1: Yes, 0: No	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.A2	1: There is in-out transaction report	To measure the completeness of financial record in micro enterprise	3: There is revenue-loss record, 2: There is revenue report, 1: There is in-out transaction report, 0: There is no financial record	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.A3	1: Yes	To know the availability of job specialization in micro enterprise	1: Yes 0: No	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.A4	2	To measure the number of business license owned by micro enterprise	[Number of business license owned]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.A5	2	To measure the number of product certification owned by micro enterprise	[Number of product certification owned]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.A6	1: Yes	To know the availability of trademark	1: Yes, 0: No	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	0-1
	ME.A7	2: UD	To know the ability of micro enterprise in form of business entity type	3: CV, 2: UD, 1: Cooperative, 0: No business entity	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better



Table 4.10 Performance Indicator Properties for Micro Enterprise (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
Market	ME.M1	3: Province	To know the how far a micro enterprise can sell the product	5: International, 4: Indonesia, 3: Province, 2: City, 1: Kecamatan	-	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better
	ME.M2	1	To measure the number of marketing event/exhibition participated by micro enterprise	[Number of marketing event/exhibition participated in a month]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Micro Enterprise	Greater is better

Table 4.11 Performance Indicator Properties for Kampung/Sentra

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
<b>Raw Material</b>	K.R1	50%	To monitor whether micro enterprise is able to maintain the continuity of raw material and production process	[Number of Micro Enterprise with constant supplier / Number of Micro Enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.R2	5%	To monitor the ability of micro enterprise of finding supplier	[Number of Micro Enterprises which have international material purchase / Number of Micro Enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Lower is better
<b>Human Resource</b>	K.HR1	5	To monitor the number of workers employed by micro enterprise	[Total number of workers in Kampung/Sentra / Number of micro enterprise]	Person	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.HR2	5%	To measure the ability of micro enterprise to employ workers	[Total percentage of the increase for the number of workers / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.HR3	50%	To measure the ability of micro enterprise to employ educated workers	[Number of workers with min. education of SMA / Total number of workers in Kampung]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.HR4	90%	To measure the positive impact of the existence of micro enterprise which is proved by workers coming from the area of Kampung	[Number of workers who come from the area of Kampung / Total number of workers in Kampung]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.HR5	1	To measure the number of training which have been participated	[Number of trainings participated in a month / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better

Table 4.11 Performance Indicator Properties for Kampung/Sentra (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
	K.HR6	25%	To measure the number of workers participating in training	[Number of workers participating in training / Total number of workers in Kampung]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
<b>Technology and Order Service</b>	K.T1	1	To measure the ability of micro enterprise of equipment ownership	[Number of semi-automatic and automatic equipment / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.T2	2	To measure the ability of micro enterprise of giving extra service for customer in form of order and delivery service	[Total performance score for order and delivery service / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
<b>Productivity</b>	K.P1	75%	To measure the productivity of micro enterprise	[Total productivity / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.P2	25%	To measure the ability of micro enterprise to increase the number of customer	[Number of micro enterprises with customer growth / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.P3	15%	To measure the ability of micro enterprise of producing new product type	[Number of micro enterprises with new product type / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.P4	2	To measure the ability of micro enterprise in developing the package and product design which give additional value to product	[Total performance score for package and product design innovation / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better

Table 4.11 Performance Indicator Properties for Kampung/Sentra (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
<b>Financial Performance</b>	K.F1	2%	To measure the revenue growth	[Total percentage of revenue in a month / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.F2	2%	To measure the growth of working capital	[Total percentage of working capital growth in a month / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.F3	1	To know whether micro enterprise have ever got fund or credit from financial institution	[Number of micro enterprises which ever get fund/credit from financial institution / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.F4	5%	To measure the amount of credit of micro enterprise compared to owner's equity	[Total credit proportion to owner's equity / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.F5	1	To know the number of funding source that is helping micro enterprise	[Number of funding resource / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
<b>Administration</b>	K.A1	45%	To know the whether micro enterprise is able to record financial report or not	[Number of micro enterprises with financial record / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.A2	45%	To measure the completeness of financial record in micro enterprise	[Number of micro enterprises with complete financial record (with the record of in-out transaction) / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better

Table 4.11 Performance Indicator Properties for Kampung/Sentra (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
	K.A3	3%	To know the availability of job specialization in micro enterprise	[Number of micro enterprises with job specialization / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.A4	2	To measure the number of business license owned by micro enterprise	[Total number of business license / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.A5	1	To measure the number of product certification owned by micro enterprise	[Total number of product certification / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.A6	45%	To know the availability of trademark	[Number of micro enterprise with trade mark / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.A7	90%	To know the ability of micro enterprise in form of business entity type	[Number of micro enterprises in form of UD / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
<b>Market</b>	K.M1	20%	To know the how far a micro enterprise can sell the product	[Number micro enterprise with market spread of Province area / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
	K.M2	1 in 3 months	To measure the number of marketing event/exhibition participated by micro enterprise	[Number of marketing event/exhibition participated / Number of micro enterprise]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better
<b>Society</b>	K.K1	20	To measure the number of micro enterprise in a Kampung/ Sentra	[Number of micro enterprise in Kampung]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/Sentra	Greater is better

Table 4.11 Performance Indicator Properties for Kampung/Sentra (cont.)

CRITERIA	INDICATOR	Target	Objective	Formula	Unit	Measurement Frequency	Review Frequency	Party who Measures	Data Source	KPI Owner	Scoring System
	K.K2	1: Yes	To know the availability of cooperation among micro enterprises within a Kampung/ Sentra	1: Yes, 0: No	0-1	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/ Sentra	0-1
	K.K3	1 in 6 months	To measure the frequency of meeting held by Kampung/ Sentra	[Number of meeting held by Kampung in a month]	Unit	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/ Sentra	Greater is better
	K.K4	25%	To measure the percentage of micro enterprises within a Kampung/ Sentra that is already out of Coaching Program because they are developed	[Number of developed micro enterprises / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/ Sentra	Greater is better
	K.K5	2%	To measure the percentage of micro enterprises within a Kampung/ Sentra that is already out of Coaching Program because they are declining	[Number declining micro enterprises / Number of micro enterprise]	%	Monthly	Quarterly	The Coach	Data collected by the coach from Micro Enterprise	Kampung/ Sentra	Lower is better

#### 4.1.11 Validation

The next step is validating the result with people in Dinas Perdagangan dan Perindustrian Kota Surabaya who are related to the Coaching Program. Validation process was conducted through discussion and the result of performance indicator, its weight and its properties was validated.

### 4.2 Performance Measurement System Implementation

After being developed, the performance measurement system is then implemented to know the existing performance and achievement of Micro Enterprises and Kampung/Sentra after being coached.

#### 4.2.1 Scoring System

The achievement score of an indicator is calculated by comparing the actual achievement with its target. Each indicator will be calculated using the following rules of scoring system.

- *Greater is better* shows that the greater the achievement/score, thus the better the indicator is.

$$Score = \frac{Actual}{Target} \quad (4.1)$$

- *Lower is better* shows that the lower the achievement/score, thus the better the indicator is.

$$Score = \left( 2 - \frac{Actual}{Target} \right) \quad (4.2)$$

- *Must be zero*, score = 1 if the actual value = 0 or score = 0 if the actual value  $\neq$  0.
- *Must be one*, score = 1 if the actual value = 1 or score = 0 if the actual value  $\neq$  1.

After being calculated, the achievement score of an indicator will be multiplied by the Vector Weight of its indicator (Equation 4.3). This is the weighted score of an indicator.

$$Weighted\ Score = Score \times Vector\ Weight \quad (4.3)$$

The previous equation shows only the status of each indicator in a Micro Enterprise or in a Kampung/Sentra.

$$\text{Performance of Micro Enterprise}_{mn} = \sum_{j=1}^{28} \text{Weighted Score}_{mnj} \quad (4.4)$$

where

m = the code of Kampung/Sentra

= 1, 2, 3, ..., 24, 25, 26

= Kampung 1, Kampung 2, ..., Kampung 10, Sentra 1, Sentra 2, ..., Sentra 16

n = the code of Micro Enterprise

= 1, 2, 3, ..., n

j = Indicator for Micro Enterprise

= 1, 2, 3, ..., 28

$$\text{Performance of Kampung/Sentra}_m = \sum_{k=1}^{33} \text{Weighted Score}_{mk} \quad (4.5)$$

where

m = the code of Kampung/Sentra

= 1, 2, 3, ..., 24, 25, 26

= Kampung 1, Kampung 2, ..., Kampung 10, Sentra 1, Sentra 2, ..., Sentra 16

k = Indicator for Kampung/Sentra

= 1, 2, 3, ..., 33

#### 4.2.2 Traffic Light System

A traffic light rating system is used for indicating the status of an indicator or overall indicator using the red, yellow and green color of traffic lights. The purpose is using color is to show specific indicator that needs priority attention. The color is generated based on the achievement score of each indicator. Each color has its score limit which is obtained from discussion with the stakeholder of the Coaching Program of Dinas Perdagangan dan Perindustrian Kota Surabaya. The definitions of red, yellow and green are:

- **Red** indicates that the achievement of an indicator doesn't reach the target or it is still far bellow the target. It stands for unacceptable or bad performance. Red indicator: Score < 0.25.



- **Yellow** indicates that the achievement of an indicator needs to be increased. It shows early signs of heading to bad performance. Yellow indicator:  $0.25 \leq \text{Score} < 0.75$ .
- **Green** indicates that the achievement of an indicator has already reached the target. It stands for acceptable and good performance. Green indicator:  $\text{Score} \geq 0.75$ .

#### 4.2.3 Performance Measurement Implementation

Let take one example of Kampung/Sentra as well as its micro enterprises to be measured. The performance measurement result can be seen in Table 4.12 for micro enterprises and Table 4.13 for Kampung/Sentra. The example object of calculation will be:

Code : Sentra 1

Name : Sentra Abon

Address : Jalan Padmosusastro

Table 4.12 Performance Measurement of Micro Enterprise in Sentra 1




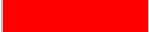
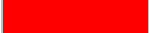



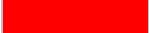

INDICATOR		WEIGHT	TARGET	ACTUAL	SCORING SYSTEM	SCORE	TRAFFIC LIGHT	WEIGHTED SCORE
<b>Raw Material</b>		<b>0.034</b>						<b>0.034</b>
ME.R1	Availability of constant supplier	0.145	1: Yes	1: Yes	0-1	1		0.145
ME.R2	Availability of internationally material purchase	0.855	1: No	1: No	0-1	1		0.855
<b>Human Resource</b>		<b>0.192</b>						<b>0.1021</b>
ME.HR1	Number of workers	0.063	4	3	Greater is better	0.75		0.04725
ME.HR2	Percentage of the increase for the number of workers	0.11	1%	0%	Greater is better	0		0
ME.HR3	Number of workers with minimum education of SMA	0.194	1	0	Greater is better	0		0
ME.HR4	Number of workers who come from the area of Kampung/Sentra	0.26	2	2	Greater is better	1		0.26
ME.HR5	Number of training participated	0.075	2	3	Greater is better	1		0.075
ME.HR6	Number of workers participating in training	0.299	2	1	Greater is better	0.5		0.1495
<b>Technology and Order System</b>		<b>0.041</b>						<b>0.00918</b>
ME.T1	Number of semi-automatic and automatic equipment	0.776	2	0	Greater is better	0		0
ME.T2	Order and delivery service	0.224	1: There is order service or delivery service	2: There is order service and delivery service	Greater is better	1		0.224

Table 4.12 Performance Measurement of Micro Enterprise in Sentra 1 (cont.)

INDICATOR		WEIGHT	TARGET	ACTUAL	SCORING SYSTEM	SCORE	TRAFFIC LIGHT	WEIGHTED SCORE
<b>Productivity</b>		<b>0.156</b>						<b>0.05725</b>
ME.P1	Productivity of Micro Enterprise	0.367	50%	65%	Greater is better	1		0.367
ME.P2	Availability of customer growth	0.442	1: Yes	0: No	0-1	0		0
ME.P3	Availability of new product type	0.109	1: Yes	0: No	0-1	0		0
ME.P4	Availability of package and product design innovation	0.083	2: There is package <b>and</b> product design innovation	0: There is <b>no</b> package <b>and</b> product design innovation	Greater is better	0		0
<b>Financial Performance</b>		<b>0.333</b>						<b>0.2291</b>
ME.F1	Revenue growth	0.557	2%	21%	Greater is better	1		0.557
ME.F2	Working capital growth	0.099	2%	0%	Greater is better	0		0
ME.F3	Ever get fund/credit from financial institution	0.131	1: Yes	1: Yes	0-1	1		0.131
ME.F4	Credit proportion to owner's equity	0.12	5%	0%	Greater is better	0		0
ME.F5	Number of funding resource other than owner's equity	0.093	1	0	Greater is better	0		0
<b>Administration</b>		<b>0.035</b>						<b>0.01748</b>
ME.A1	Availability of financial record	0.214	1: Yes	1: Yes	0-1	1		0.214
ME.A2	Completeness of financial record	0.104	1: There is in-out transaction report	1: There is in-out transaction report	Greater is better	1		0.104
ME.A3	Availability of job specialization	0.354	1: Yes	0: No	0-1	0		0

Table 4.12 Performance Measurement of Micro Enterprise in Sentra 1 (cont.)

INDICATOR		WEIGHT	TARGET	ACTUAL	SCORING SYSTEM	SCORE	TRAFFIC LIGHT	WEIGHTED SCORE
ME.A4	Number of business license	0.063	2	2	Greater is better	1		0.063
ME.A5	Number of product certification	0.105	2	1	Greater is better	0.5		0.0525
ME.A6	Availability of trademark	0.094	1: Yes	0: No	0-1	0		0
ME.A7	Type of business entity	0.066	2: UD	2: UD	Greater is better	1		0.066
<b>Market</b>		<b>0.209</b>						<b>0.15676</b>
ME.M1	Market spread	0.75	3: Province	2: City	Greater is better	0.6667		0.500025
ME.M2	Number of marketing event/exhibition participated	0.25	1	1	Greater is better	1		0.25
<b>Total</b>		<b>1.000</b>						<b>0.60578</b>


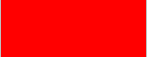





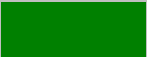

Table 4.13 Performance Measurement of Sentra 1

INDICATOR		WEIGHT	TARGET	ACTUAL	SCORING SYSTEM	SCORE	TRAFFIC LIGHT	WEIGHTED SCORE
<b>Raw Material</b>		<b>0.043</b>						<b>0.043</b>
K.R1	Percentage of Micro Enterprises which have constant supplier	0.145	50%	100%	Greater is better	1		0.145
K.R2	Percentage of Micro Enterprises which have internationally material purchase	0.855	5%	0%	Lower is better	1		0.855
<b>Human Resource</b>		<b>0.198</b>						<b>0.124</b>
K.HR1	Average number of workers	0.063	5	4	Greater is better	0.8		0.0504
K.HR2	Average percentage of the increase for the number of workers	0.11	5%	0%	Greater is better	0		0
K.HR3	Percentage of workers with minimum education of SMA	0.194	50%	0%	Greater is better	0		0
K.HR4	Percentage of workers who come from the area of Kampung/Sentra	0.26	90%	70%	Greater is better	0.7778		0.202228
K.HR5	Average number of trainings participated	0.075	1	3	Greater is better	1		0.075
K.HR6	Percentage of workers participating in training	0.299	25%	30%	Greater is better	1		0.299
<b>Technology and Order System</b>		<b>0.045</b>						<b>0.01</b>
K.T1	Average number of semi-automatic and automatic equipment	0.776	1	0	Greater is better	0		0
K.T2	Average performance score for order and delivery service	0.224	2	2	Greater is better	1		0.224
<b>Productivity</b>		<b>0.144</b>						<b>0.11707</b>
K.P1	Average of productivity	0.367	75%	73%	Greater is better	0.9733		0.3572011
K.P2	Percentage of micro enterprises with customer growth	0.442	25%	33%	Greater is better	1		0.442

Table 4.13 Performance Measurement of Sentra 1 (cont.)

INDICATOR		WEIGHT	TARGET	ACTUAL	SCORING SYSTEM	SCORE	TRAFFIC LIGHT	WEIGHTED SCORE
K.P3	Percentage of micro enterprises with new product type	0.109	15%	0%	Greater is better	0		0
K.P4	Average performance score for package and product design innovation	0.083	2	0.333	Greater is better	0.1665		0.0138195
<b>Financial Performance</b>		<b>0.273</b>						<b>0.1878</b>
K.F1	Average of revenue growth	0.557	2%	4%	Greater is better	1		0.557
K.F2	Average of working capital growth	0.099	2%	0%	Greater is better	0		0
K.F3	Percentage of micro enterprises which ever get fund/credit from financial institution	0.131	100%	100%	Greater is better	1		0.131
K.F4	Average of credit proportion to owner's equity	0.12	5%	0%	Greater is better	0		0
K.F5	Average number of funding resource other than owner's equity	0.093	1	0	Greater is better	0		0
<b>Administration</b>		<b>0.043</b>						<b>0.0145</b>
K.A1	Percentage of micro enterprises with financial record	0.214	45%	67%	Greater is better	1		0.104
K.A2	Percentage of micro enterprises with complete financial record (with the record of in-out transaction)	0.104	45%	67%	Greater is better	1		0.104
K.A3	Percentage of micro enterprises with job specialization	0.354	3%	0%	Greater is better	0		0
K.A4	Average number of business license	0.063	2	2	Greater is better	1		0.063
K.A5	Average number of product certification	0.105	1	0.002	Greater is better	0.002		0.00021
K.A6	Percentage of micro enterprise with trade mark	0.094	45%	0%	Greater is better	0		0

Table 4.13 Performance Measurement of Sentra 1 (cont.)

INDICATOR		WEIGHT	TARGET	ACTUAL	SCORING SYSTEM	SCORE	TRAFFIC LIGHT	WEIGHTED SCORE
K.A7	Percentage of micro enterprises in form of UD	0.066	90%	100%	Greater is better	1		0.066
<b>Market</b>		<b>0.227</b>						<b>0.05675</b>
K.M1	Percentage of micro enterprise with market spread of Province area	0.75	20%	0%	Greater is better	0		0
K.M2	Average number of marketing event/exhibition participated	0.25	1 in 3 months	2.6668 in 3 months	Greater is better	1		0.25
<b>Society</b>		<b>0.028</b>						<b>0.02707</b>
K.K1	Number of micro enterprises in a Kampung/Sentra	0.111	20	3	Greater is better	0.15		0.07785
K.K2	Availability of cooperation among micro enterprises within a Kampung/ Sentra	0.519	1: Yes	1: Yes	0-1	1		0.519
K.K3	Number of meeting held by Kampung/Sentra	0.056	1 in 6 months	1 in 6 months	Greater is better	1		0.056
K.K4	Percentage of developed micro enterprises	0.236	25%	33%	Greater is better	1		0.236
K.K5	Percentage of declining micro enterprises	0.078	2%	0%	Lower is better	1		0.078
<b>Total</b>		<b>1</b>						<b>0.580373</b>

The calculation takes Sentra 1 as an example. In Table 4.12, there is only one micro enterprise of Sentra 1 that is being measured. This process will also be applied for the other micro enterprises of Sentra 1. Similarly, the process in Table 4.13 will also be applied for the other Kampung/Sentra. However, the calculation will not be performed manually as seen in Table 4.12 and 4.13. Instead, the calculation uses a simple *Performance Measurement Dashboard* that will be explained in the next sub chapter.

#### 4.2.4 Performance Measurement Dashboard Development

Performance measurement dashboard is a tool to shows the existing condition of performance achievement. It is designed to monitor and to keep tracking the performance of micro enterprises and Kampung/Sentra. This dashboard is created using *Microsoft Excel* Software.



Figure 4.9 Home Page Design of Performance Measurement for Micro Enterprise and Kampung/Sentra Dashboard



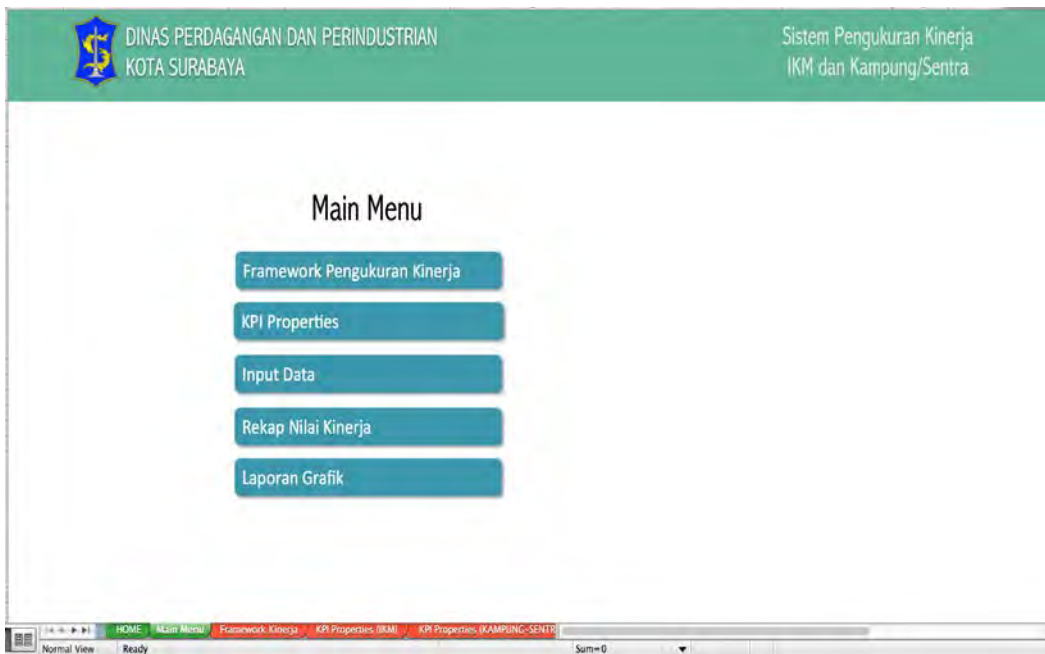


Figure 4.10 Main Menu Design of Performance Measurement for Micro Enterprise and Kampung/Sentra Dashboard

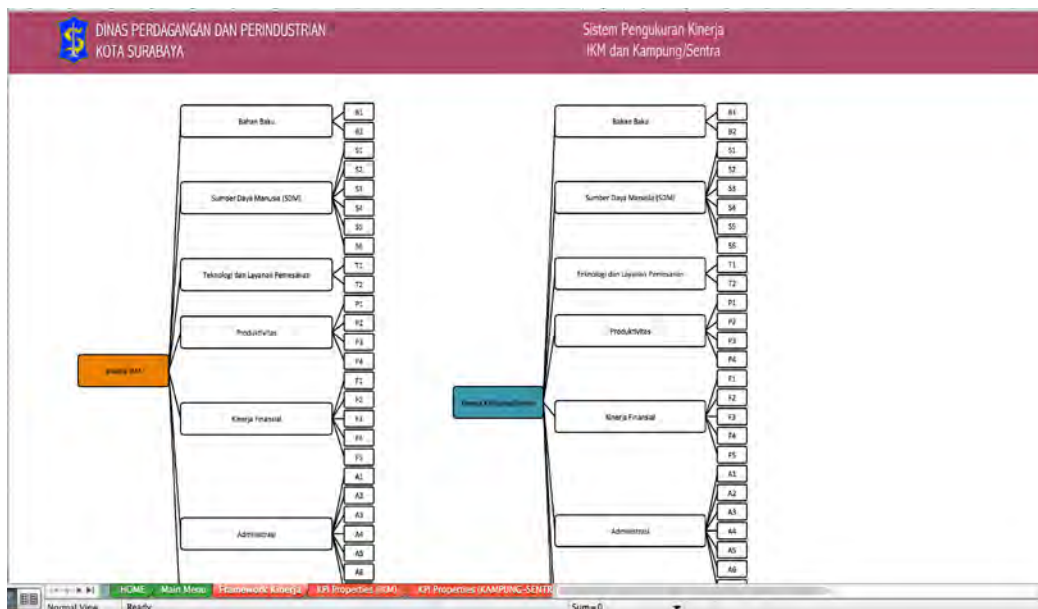


Figure 4.11 Performance Measurement System Hierarchy Page of Dashboard

IKM				Tujuan	Formula/Cara Mengukur	Satuan	Frekuensi Pengukuran	Frekuensi Review	
Bahan Baku	0.04	Adakidanya supplier tetap	0.145	0.00638	Memontri IKM apakah dapat mempertahankan kelancaran pasokan bahan baku demi kelanjutan proses produksi	1. Ada, 0. Tidak ada	Bulanan	3 Bulan	
		Adakidanya pembelian barang dari luar negeri	0.535	0.03762	Melihat kemampuan IKM untuk mencari pemasok bahan baku	1. Tidak ada, 0. Ada	Bulanan	3 Bulan	
SDM	0.207	Jumlah tenaga kerja	0.056	0.01192	Mengukur banyaknya tenaga kerja yang terampil dalam IKM	(Jumlah tenaga kerja)	Ongak	Bulanan	3 Bulan
		Persentase keahlian jumlah tenaga kerja	0.111	0.02377	Mengukur kemampuan IKM untuk melayani tenaga kerja	(Jumlah tenaga kerja terampil / Jumlah tenaga kerja bulanan) x 100	%	Bulanan	3 Bulan
		Jumlah tenaga kerja dengan pendidikan di atas SMA	0.192	0.03754	Mengukur kemampuan IKM dalam mengimbangi tenaga kerja berpendidikan	(Jumlah tenaga kerja dengan pendidikan SMA ke atas)	Ongak	Bulanan	3 Bulan
		Jumlah tenaga kerja yang berasal dari Kampung	0.225	0.04651	Mengukur dampak positif adanya IKM yang dituntut oleh masyarakat tenaga kerja dari Kampung	(Jumlah tenaga kerja yang berasal dari Kecamatan tempat Kampung (dikeluarkan dengan KTP))	Ongak	Bulanan	3 Bulan
		Banyaknya pelatihan yang pernah diikuti	0.116	0.024012	Mengukur banyaknya pelatihan yang pernah diikuti	(Jumlah pelatihan yang pernah diikuti dalam satu bulan)	Satuan	Bulanan	3 Bulan
Keuangan dan Layanan Pemenuhan	0.194	Banyaknya tenaga kerja yang pernah mengikuti pelatihan	0.299	0.051893	Mengukur banyaknya tenaga kerja yang pernah mengikuti pelatihan	(Jumlah tenaga kerja yang mengikuti pelatihan dalam periode satu bulan)	Ongak	Bulanan	3 Bulan
		Jumlah alat produksi serta otomatis dan otomatisasi	0.776	0.020384	Mengukur kemampuan IKM dalam kepraktisan alat produksi	(Jumlah alat produksi semi otomatis dan otomatis)	Satuan	Bulanan	3 Bulan
Produktivitas	0.145	Jasa layanan pemenuhan	0.224	0.057916	Mengukur kemampuan IKM dalam menyediakan layanan lebih terdapat customer dalam layanan pemenuhan & pengiriman	(Jumlah nilai kinerja layanan pemenuhan dan pengiriman) / (Persentase > 1. Pemenuhan dapat dilakukan dengan waktu kerumahan (juga, sima, media sosial), 0. Pemenuhan harus dilakukan, 0. terputus. Pengiriman > 1. Ada layanan pengiriman, 0. Tidak ada layanan pengiriman)		Bulanan	3 Bulan
		Produktivitas IKM	0.342	0.05249	Mengukur produktivitas IKM	(Jumlah kapasitas produksi terjual / Jumlah kapasitas produksi terpasang)	%	Bulanan	3 Bulan
		Adanya pemenuhan konsumen	0.441	0.067045	Mengukur kemampuan IKM untuk meminimalkan jumlah konsumen/belanja	(Ada [Jumlah konsumen bulanan -> 1. Ada, maka Ada, 0. Tidak ada, maka Ada]) x 100	%	Bulanan	3 Bulan
Kualitas Finansial	0.102	Adanya inovasi produk baru	0.113	0.016385	Mengukur IKM dalam mengupayakan jasa produk baru	1. Ada, 0. Tidak ada		Bulanan	3 Bulan
		Adanya inovasi kemasan dan bentuk produk	0.094	0.01218	Mengukur kemampuan IKM dalam mengembangkan kemasan dan bentuk produk yang akan memberikan nilai tambah lebih	(Jumlah nilai kinerja adanya inovasi kemasan dan bentuk produk) / (Kemasan > 1. Ada inovasi kemasan, 0. Tidak ada inovasi kemasan; Bentuk produk > 1. Ada inovasi bentuk produk, 0. Tidak ada inovasi bentuk produk)		Bulanan	3 Bulan
		Pertumbuhan omzet	0.477	0.158441	Mengukur besarnya pertumbuhan omzet IKM	(Jumlah omzet bulan ini) - (Jumlah omzet bulan lalu) / (Jumlah omzet bulan lalu) x 100	%	Bulanan	3 Bulan
Kelembagaan dan Layanan Pemenuhan	0.147	Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja bulan ini) - (Jumlah modal kerja bulan lalu) / (Jumlah modal kerja bulan lalu) x 100	%	Bulanan	3 Bulan
		Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja bulan ini) - (Jumlah modal kerja bulan lalu) / (Jumlah modal kerja bulan lalu) x 100	%	Bulanan	3 Bulan
Kelembagaan dan Layanan Pemenuhan	0.147	Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja bulan ini) - (Jumlah modal kerja bulan lalu) / (Jumlah modal kerja bulan lalu) x 100	%	Bulanan	3 Bulan
		Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja bulan ini) - (Jumlah modal kerja bulan lalu) / (Jumlah modal kerja bulan lalu) x 100	%	Bulanan	3 Bulan
Kelembagaan dan Layanan Pemenuhan	0.147	Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja bulan ini) - (Jumlah modal kerja bulan lalu) / (Jumlah modal kerja bulan lalu) x 100	%	Bulanan	3 Bulan
		Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja bulan ini) - (Jumlah modal kerja bulan lalu) / (Jumlah modal kerja bulan lalu) x 100	%	Bulanan	3 Bulan

Figure 4.12 Performance Indicator for Micro Enterprise Properties Page for Dashboard

KAMPUNG				Tujuan	Formula/Cara Mengukur	Satuan	Frekuensi Pengukuran	Frekuensi Review	
Bahan Baku	0.04	Pemenuhan IKM yang memiliki supplier tetap	0.145	0.006235	Memontri IKM apakah dapat mempertahankan kelancaran pasokan bahan baku demi kelanjutan proses produksi	(Jumlah IKM yang memiliki supplier tetap / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Pemenuhan IKM yang melakukan pembelian barang dari luar negeri	0.535	0.03765	Melihat kemampuan IKM untuk mencari pemasok bahan baku	(Jumlah IKM yang melakukan pembelian barang dari luar negeri / Jumlah IKM aktif)	%	Bulanan	3 Bulan
SDM	0.199	Rata-rata jumlah tenaga kerja	0.056	0.011048	Mengukur banyaknya tenaga kerja yang terampil dalam IKM	(Jumlah tenaga kerja Kampung / Jumlah IKM aktif)	Ongak	Bulanan	3 Bulan
		Rata-rata persentase keahlian jumlah tenaga kerja	0.111	0.021478	Mengukur kemampuan IKM untuk melayani tenaga kerja	(Jumlah persentase keahlian jumlah tenaga kerja Kampung / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Persentase tenaga kerja dengan pendidikan di atas SMA	0.192	0.038115	Mengukur kemampuan IKM dalam mengimbangi tenaga kerja berpendidikan	(Jumlah tenaga kerja Kampung dengan pendidikan di atas SMA / Jumlah tenaga kerja Kampung)	%	Bulanan	3 Bulan
		Persentase tenaga kerja yang berasal dari Kampung	0.225	0.04645	Mengukur dampak positif adanya IKM yang dituntut oleh masyarakat tenaga kerja dari Kampung	(Jumlah tenaga kerja Kampung yang berasal dari Kampung / Jumlah tenaga kerja Kampung)	%	Bulanan	3 Bulan
		Banyaknya pelatihan yang pernah diikuti	0.116	0.023464	Mengukur banyaknya pelatihan yang pernah diikuti	(Jumlah pelatihan yang diikuti IKM dalam satu bulan / Jumlah IKM aktif)	Satuan	Bulanan	3 Bulan
Keuangan dan Layanan Pemenuhan	0.194	Banyaknya tenaga kerja yang pernah mengikuti pelatihan	0.299	0.049202	Mengukur banyaknya tenaga kerja yang pernah mengikuti pelatihan	(Jumlah tenaga kerja yang mengikuti pelatihan / Jumlah tenaga kerja Kampung)	%	Bulanan	3 Bulan
		Rata-rata jumlah alat produksi serta otomatis dan otomatisasi	0.776	0.03492	Mengukur kemampuan IKM dalam kepraktisan alat produksi	(Jumlah alat produksi semi otomatis dan otomatis / Jumlah IKM aktif)	Satuan	Bulanan	3 Bulan
Produktivitas	0.145	Jasa layanan pemenuhan	0.224	0.051098	Mengukur kemampuan IKM dalam menyediakan layanan lebih terdapat customer dalam layanan pemenuhan & pengiriman	(Jumlah nilai kinerja IKM dalam jasa layanan pemenuhan & pengiriman / Jumlah IKM aktif)	Satuan	Bulanan	3 Bulan
		Rata-rata produktivitas IKM	0.342	0.052128	Mengukur produktivitas IKM	(Jumlah produksi terjual / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Pemenuhan IKM yang mengupayakan jasa produk baru	0.113	0.016272	Mengukur kemampuan IKM untuk meminimalkan jumlah konsumen/belanja	(Jumlah nilai kinerja IKM dalam jasa layanan pemenuhan & pengiriman / Jumlah IKM aktif)	%	Bulanan	3 Bulan
Kualitas Finansial	0.102	Adanya inovasi produk baru	0.113	0.012056	Mengukur kemampuan IKM dalam mengupayakan jasa produk baru	(Jumlah IKM yang memiliki jasa produk baru / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Adanya inovasi kemasan dan bentuk produk	0.094	0.012056	Mengukur kemampuan IKM dalam mengembangkan kemasan dan bentuk produk yang akan memberikan nilai tambah lebih	(Jumlah nilai kinerja IKM dalam inovasi kemasan dan bentuk produk) / (Kemasan > 1. Ada inovasi kemasan, 0. Tidak ada inovasi kemasan; Bentuk produk > 1. Ada inovasi bentuk produk, 0. Tidak ada inovasi bentuk produk)	%	Bulanan	3 Bulan
		Rata-rata pertumbuhan omzet	0.477	0	Mengukur besarnya pertumbuhan omzet IKM	(Jumlah omzet bulan ini) - (Jumlah omzet bulan lalu) / (Jumlah omzet bulan lalu) x 100	%	Bulanan	3 Bulan
Kelembagaan dan Layanan Pemenuhan	0.147	Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja dalam satu bulan / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja dalam satu bulan / Jumlah IKM aktif)	%	Bulanan	3 Bulan
Kelembagaan dan Layanan Pemenuhan	0.147	Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja dalam satu bulan / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja dalam satu bulan / Jumlah IKM aktif)	%	Bulanan	3 Bulan
Kelembagaan dan Layanan Pemenuhan	0.147	Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja dalam satu bulan / Jumlah IKM aktif)	%	Bulanan	3 Bulan
		Pertumbuhan modal kerja	0	0	Mengukur kemampuan sosial kerja IKM	(Jumlah modal kerja dalam satu bulan / Jumlah IKM aktif)	%	Bulanan	3 Bulan

Figure 4.13 Performance Indicator (for Kampung/Sentra) Properties Page of Dashboard

**IKM**

KRITERIA	BOBOT	KODE	INDIKATOR	BOBOT	BOBOT GLOBAL	TARGET
Bahan baku	0.034	B1	Ada/tidaknya supplier tetap	0.145	0.00493	1
		B2	Ada/tidaknya pembelian bahan baku dari luar negeri	0.855	0.02907	1
SDM	0.192	S1	Jumlah tenaga kerja	0.063	0.012096	2
		S2	Persentase kenaikan jumlah tenaga kerja	0.11	0.02112	2
		S3	Jumlah tenaga kerja dengan pendidikan diatas SMA	0.194	0.037248	4
		S4	Jumlah tenaga kerja yang berasal dari Kampung	0.26	0.04992	1%
		S5	Banyaknya pelatihan yang pernah diikuti	0.075	0.0144	2
		S6	Banyaknya tenaga kerja yang pernah mengikuti pelatihan	0.299	0.057408	1
Teknologi dan Layanan Pemesanan	0.041	T1	Jumlah alat produksi semi otomatis dan otomatis	0.776	0.031816	2
		T2	Jasa layanan pengiriman	0.224	0.009184	1
Produktivitas	0.156	P1	Produktivitas IKM	0.367	0.057252	50%
		P2	Adanya pertumbuhan konsumen	0.442	0.068952	1
		P3	Adanya inovasi kemasan dan bentuk produk	0.109	0.017004	2
		P4	Adanya jenis produk baru	0.083	0.012948	1
Kinerja Finansial	0.333	F1	Pertumbuhan omzet	0.557	0.185481	30,000,000
		F2	Pertumbuhan modal kerja	0.099	0.032967	2%
		F3	Pemab/belum pernah mendapat sumber pendanaan dari lembaga pendanaan	0.131	0.043623	3,333,333
		F4	Proporsi hutang dibanding modal sendiri	0.12	0.03996	1
		F5	Jumlah sumber pendanaan diluar modal sendiri	0.093	0.030969	5%
Administrasi	0.035	A1	Ada/tidaknya sistem pencatatan keuangan	0.214	0.00749	1
		A2	Kelengkapan pencatatan keuangan	0.104	0.00364	1
		A3	Ada/tidaknya sistem pembagian pekerjaan	0.354	0.01239	1
		A4	Jumlah ijin usaha yang dimiliki	0.063	0.002205	2
		A5	Kelengkapan sertifikasi produk	0.105	0.003675	2
		A6	Ada/tidaknya Merek Dagang	0.094	0.00329	2
		A7	Status badan hukum	0.066	0.00231	1
Market	0.209	M1	Sebaran geografis penjualan	0.75	0.15675	3
		M2	Banyaknya kegiatan pemasaran/pameran yang pernah diikuti	0.25	0.05225	4

Figure 4.14 Page of Weight and Target of Performance Indicator for Micro Enterprise

**KAMPUNG/SENTRA**

KRITERIA	BOBOT	KODE	INDIKATOR	BOBOT	BOBOT GLOBAL	TARGET
Bahan Baku	0.043	B1	Persentase IKM yang memiliki supplier tetap	0.145	0.006235	50%
		B2	Persentase IKM yang melakukan pembelian barang dari luar negeri	0.855	0.036765	5%
SDM	0.198	S1	Rata-rata jumlah tenaga kerja	0.063	0.012474	1
		S2	Rata-rata persentase kenaikan jumlah tenaga kerja	0.11	0.02178	25%
		S3	Persentase tenaga kerja dengan pendidikan diatas SMA	0.194	0.038412	5
		S4	Persentase tenaga kerja yang berasal dari daerah sekitar Kampung	0.26	0.05148	5%
		S5	Rata-rata pelatihan yang pernah diikuti	0.075	0.01485	90%
		S6	Persentase jumlah tenaga kerja yang pernah mengikuti pelatihan	0.299	0.059202	50%
Teknologi dan Layanan Pemesanan	0.045	T1	Rata-rata jumlah alat produksi semi otomatis dan otomatis	0.776	0.03492	2
		T2	Rata-rata kinerja IKM dalam jasa layanan pemesanan & pengiriman	0.224	0.01008	1
Produktivitas	0.144	P1	Rata-rata produktivitas IKM	0.367	0.052848	75%
		P2	Persentase IKM yang mengalami pertumbuhan konsumen	0.442	0.063648	25%
		P3	Rata-rata kinerja IKM dalam inovasi kemasan dan bentuk produk	0.109	0.015696	2
		P4	Persentase IKM yang memiliki jenis produk baru	0.083	0.011952	0.15
Kinerja Finansial	0.273	F1	Rata-rata pertumbuhan omzet	0.557	0.152061	30,000,000
		F2	Rata-rata pertumbuhan modal kerja	0.099	0.027027	2%
		F3	Persentase IKM yang pernah/ sedang mendapat pinjaman dari lembaga pendanaan	0.131	0.035763	10,000,000
		F4	Rata-rata proporsi hutang Bank dibanding modal sendiri	0.12	0.03276	5%
		F5	Rata-rata jumlah sumber pendanaan diluar modal sendiri	0.093	0.025389	100%
Administrasi	0.043	A1	Persentase IKM yang melakukan pencatatan keuangan	0.214	0.009202	45%
		A2	Persentase IKM yang melakukan pencatatan keuangan lengkap	0.104	0.004472	45%
		A3	Persentase IKM yang memiliki sistem pembagian pekerjaan	0.354	0.015222	3%
		A4	Rata-rata jumlah ijin usaha yang dimiliki	0.063	0.002709	90%
		A5	Rata-rata kelengkapan sertifikasi produk	0.105	0.004515	2
		A6	Persentase IKM dalam Kampung yang memiliki Merek Dagang	0.094	0.004042	1
		A7	Persentase IKM yang sudah berbentuk UD	0.066	0.002838	0.45
Market	0.227	M1	Persentase IKM yang memiliki sebaran geografis penjualan hingga Indonesia	0.75	0.17025	20%
		M2	Rata-rata kegiatan pemasaran/pameran yang pernah diikuti	0.25	0.05675	2

Figure 4.15 Page of Weight and Target of Performance Indicator for Kampung/Sentra



DINAS PERDAGANGAN DAN PERINDUSTRIAN  
KOTA SURABAYA

Sistem Pengukuran Kinerja  
IKM dan Kampung/Sentra

Kode Kampung-1  
Nama Kampung Bardir  
Alamat Kelurahan Kedung Baruk 130, Kecamatan Rungkut

No	Kode IKM	Nama Pendiri IKM	Bahan baku					Sumber Daya Manusia (SDM)																
			Ada/tidaknya supplier tetap		Ada/tidaknya pembelian bahan baku dari luar negeri			Jumlah tenaga kerja		Persentase kenaikan jumlah tenaga kerja		Jumlah tenaga kerja dengan pendidikan diatas SMA			Jumlah tenaga kerja yang berasal dari Kampung			Banyaknya pelatihan yang pernah diikuti						
			0.00493	1	0.02907	1	0.012096	2	0.02112	2	0.037248	4	0.04992	1%	0.0144	2								
2015	Score	Score Terbobot	2015	Score	Score Terbobot	2015	Score	Score Terbobot	2015	Score	Score Terbobot	2015	Score	Score Terbobot	2015	Score	Score Terbobot							
1	IKMK-1.1	Lilik Asliah	1	1	0.00493	0	0	0	4	2	0.024192	1	0.5	0.01056	2	2	0.5	0.018624	0%	0%	0	2	1	0.0144
2	IKMK-1.2	Lilik Zulfiah	1	1	0.00493	0	0	0	9	4.5	0.054432	1	0.5	0.01056	3	3	0.75	0.027936	0%	0%	0	3	1.5	0.0216
3	IKMK-1.3	Abdul Karim	0	0	0	0	0	0	1	0.5	0.006048	1	0.5	0.01056	3	3	0.75	0.027936	0%	0%	0	3	1.5	0.0216
4	IKMK-1.4	Kasyan	1	1	0.00493	0	0	0	8	4	0.048384	1	0.5	0.01056	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072
5	IKMK-1.5	Eni Kusnini	1	1	0.00493	0	0	0	8	4	0.048384	1	0.5	0.01056	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072
6	IKMK-1.6	Siki Asmanita	1	1	0.00493	0	0	0	1	0.5	0.006048	0	0	0	3	3	0.75	0.027936	0%	0%	0	3	1.5	0.0216
7	IKMK-1.7	Siti Mahmudah	1	1	0.00493	0	0	0	4	2	0.024192	1	0.5	0.01056	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072
8	IKMK-1.8	Hadiara	0	0	0	0	0	0	4	2	0.024192	1	0.5	0.01056	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072
9	IKMK-1.9	Wahyuningih	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072
10	IKMK-1.10	Masfifah	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072
11	IKMK-1.11	Lilis	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.25	0.009312	0%	0%	0	1	0.5	0.0072

Figure 4.16 Page of Input and Result for Micro Enterprise (Example: Kampung 1)

DINAS PERDAGANGAN DAN PERINDUSTRIAN  
KOTA SURABAYA

Sistem Pengukuran Kinerja  
IKM dan Kampung/Sentra

No	Kode Kampung/Sentra	Jenis Kampung/Sentra	Jumlah IKM	Bahan baku						Rata-rata jumlah tenaga kerja				Rata-rata persentase kenaikan jumlah tenaga kerja			
				Persentase IKM yang memiliki supplier tetap			Persentase IKM yang melakukan pembelian barang dari luar negeri			0.006235		0.036765		0.012474		0.02178	
				2015	Nilai	Nilai Total	2015	Nilai	Nilai Total	2015	Nilai	Nilai Total	2014	Nilai	Nilai Total	2014	Nilai
1	Kampung 1	0%	13	54%	1.0769	0.006714615	8%	0.4615	0.01496846	147	147.0000	1.833678	99%	3.9764	0.08666		
2	Kampung 2	Kampung Handicraft	7	100%	2.0000	0.01247	0%	2.0000	0.07353	7	7.0000	0.087318	24%	0.9524	0.02074		
3	Kampung 3	Kampung Kerupik Tempe	6	100%	2.0000	0.01247	0%	2.0000	0.07353	3	3.0000	0.037422	30%	1.2000	0.026		
4	Kampung 4	Kampung Kerupuk	10	0%	0.0000	0	0%	2.0000	0.07353	6	6.0000	0.074844	56%	2.2222	0.0		
5	Kampung 5	Kampung Kue	27	0%	0.0000	0	0%	2.0000	0.07353	5	5.0000	0.06237	31%	1.2203	0.0265		
6	Kampung 6	Kampung Paving	2	100%	2.0000	0.01247	0%	2.0000	0.07353	3	3.0000	0.037422	100%	4.0000	0.08		
7	Kampung 7	Kampung Penjualan	14	0%	0.0000	0	0%	2.0000	0.07353	2	2.0000	0.024948	58%	2.3333	0.0		
8	Kampung 8	Kampung Sentra	150	100%	2.0000	0.01247	0%	2.0000	0.07353	2	2.0000	0.024948	68%	2.7397	0.0596		
9	Kampung 9	Kampung Ipa	70	100%	2.0000	0.01247	0%	2.0000	0.07353	0	0.0000	0	0%	0.0000	0		
10	Kampung 10	Kampung Tempe	36	0%	0.0000	0	0%	2.0000	0.07353	1	1.0000	0.012474	20%	0.7826	0.0170		
11	Sentra 1	Sentra Abon	3	100%	2.0000	0.01247	0%	2.0000	0.07353	3	3.0000	0.037422	30%	1.2000	0.026		
12	Sentra 2	Sentra Bakpia	3	100%	2.0000	0.01247	0%	2.0000	0.07353	2	2.0000	0.024948	60%	2.4000	0.05		
13	Sentra 3	Sentra Batik Dakub Keping	3	100%	2.0000	0.01247	0%	2.0000	0.07353	7	7.0000	0.087318	60%	2.4000	0.05		
14	Sentra 4	Sentra Batik Karah	3	100%	2.0000	0.01247	0%	2.0000	0.07353	3	3.0000	0.037422	80%	3.2000	0.066		
15	Sentra 5	Sentra Kue	17	100%	2.0000	0.01247	0%	2.0000	0.07353	12	12.0000	0.149688	12%	0.4762	0.0103		
16	Sentra 6	Sentra Ikat Jampust	3	100%	2.0000	0.01247	0%	2.0000	0.07353	12	12.0000	0.149688	12%	0.4762	0.0103		
17	Sentra 7	Sentra Kerajinan Kerang	5	100%	2.0000	0.01247	0%	2.0000	0.07353	2	2.0000	0.024948	7%	0.2667	0.002		
18	Sentra 8	Sentra Kerupuk Kembang	17	0%	0.0000	0	0%	2.0000	0.07353	8	8.0000	0.099792	94%	3.7778	0.08		
19	Sentra 9	Sentra Kue	17	100%	2.0000	0.01247	0%	2.0000	0.07353	2	2.0000	0.024948	47%	1.8889	0.0		
20	Sentra 10	Sentra Olahan Herbal	10	100%	2.0000	0.01247	0%	2.0000	0.07353	8	8.0000	0.099792	43%	1.7391	0.0378		
21	Sentra 11	Sentra Olahan Laut	7	100%	2.0000	0.01247	0%	2.0000	0.07353	6	6.0000	0.074844	35%	1.4375	0.03256		
22	Sentra 12	Sentra Sepatu	3	100%	2.0000	0.01247	0%	2.0000	0.07353	7	7.0000	0.087318	21%	0.8421	0.01832		
23	Sentra 13	Sentra Sepatu Kulit	7	100%	2.0000	0.01247	0%	2.0000	0.07353	8	8.0000	0.099792	18%	0.7179	0.01562		
24	Sentra 14	Sentra Shompia	6	100%	2.0000	0.01247	0%	2.0000	0.07353	3	3.0000	0.037422	6%	0.2388	0.00528		

Figure 4.17 Page of Input and Result for Kampung/Sentra

#### 4.2.5 Performance Measurement System Guideline

Personnel rotation may occur in Dinas Perdagangan dan Perindustrian Kota Surabaya. In order to avoid knowledge loss, a guideline for implementing performance measurement system is created. This guideline includes a set routine to use the performance measurement system which has been developed. The guideline is illustrated in Figure 4.18.

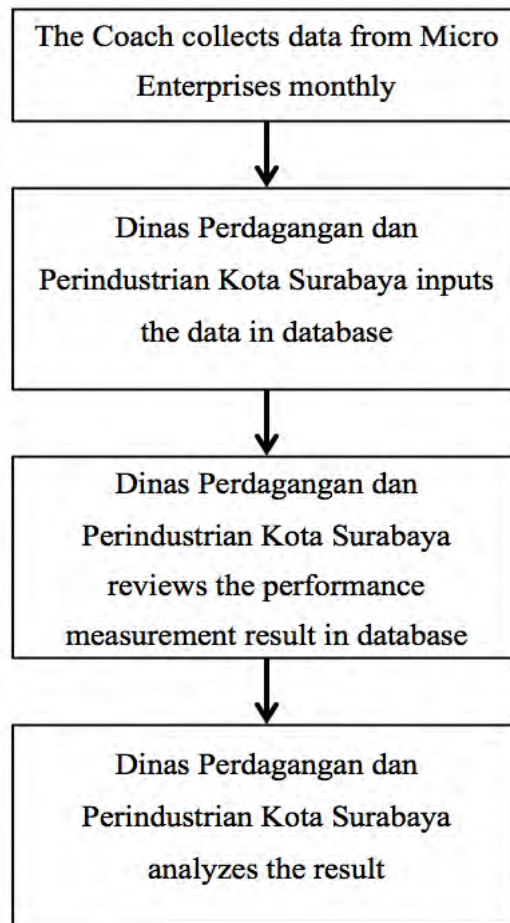


Figure 4.18 Flowchart of Implementing Performance Measurement System

Similarly, a form for the Coaches is also made in order to help the Coaches collect the data from micro enterprises. It has a purpose of creating structured reports that have been collected by the Coaches. The form is attached in Enclosure 4.

## **CHAPTER 5**

### **INTERPRETATION**

This chapter presents about the data interpretation from performance measurement development and implementation of previous chapter.

#### **5.1 Interpretation of Performance Measurement Development**

Performance indicators with the highest weight are revenue growth, market spread, number of trainings participated, availability of customer growth, productivity and number of workers participating in training respectively. This indicates that these indicators are very critical and thus Dinas Perdagangan dan Perindustrian Kota Surabaya should put more attention to them.

#### **5.2 Interpretation of Performance Indicator Result of Micro Enterprises**

In general, the result of performance measurement for micro enterprises shows as follows:

- Factor Raw Material
  - Availability of constants Supplier (Indicator ME.R1)

There are 75% of micro enterprise under the Coaching Program that has green status in which their performance of this indicator is good. In other word, 75% of them already have constant supplier.

**The Performance of All Micro Enterprises for Indicator ME.R1**

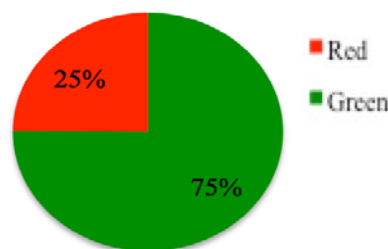


Figure 5.1 Summary of Performance  
Indicator ME.R1

- Availability of International Material Purchase (Indicator ME.R2)

There are already 100% of micro enterprise under the Coaching Program that has green status in which their performance in this indicator is good. In other word, 100% of them do not purchase material from international market.

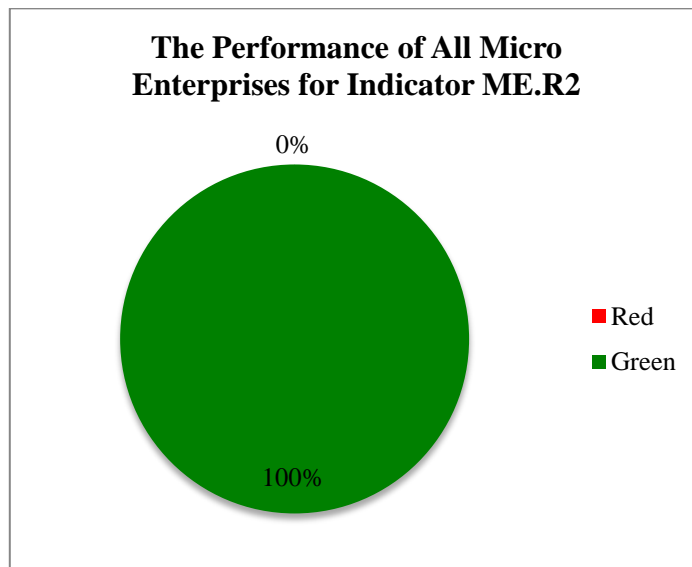


Figure 5.2 Summary of Performance Indicator ME.R2

- Factor Human Resource

For this factor, the indicator “Number of training participated” shows that 39.9% of all micro enterprises have participated the training two times during 2014 followed by 30.1% of them never participates training during 2014.

- Factor Productivity

In average, the productivity of micro enterprises shows a great number of 92%. However, this may be affected by the high deviation which lead to this number.

### 5.3 Interpretation of Performance Indicator Result of Kampung/Sentra

Based on the performance measurement implementation, Kampung/Sentra with the highest performance score are Sentra 6 (Ikat Jumput), Sentra 3 (Sentra Batik Dukuh Kupang) and Kampung 9 (Kampung Tas)

respectively. Overall, the performance of all Kampung/Sentra lies in the yellow area or it can be said that all of them needs more support to head to green area or good performance. The result summary is presented in Table 5.1.

Table 5.1 Performance Measurement Result of Kampung/Sentra

<b>Ranking</b>	<b>Kampung/Sentra</b>	<b>Nama</b>	<b>Status</b>
1	Sentra 6	Sentra Ikat Jumput	
2	Sentra 3	Sentra Batik Dukuh Kupang	
3	Kampung 9	Kampung Tas	
4	Sentra 10	Sentra Olahan Herbal	
5	Sentra 2	Sentra Bakpia	
6	Sentra 13	Sentra Sepatu Kulit	
7	Sentra 1	Sentra Abon	
8	Sentra 11	Sentra Olahan Laut	
9	Kampung 3	Kampung Keripik Tempe	
10	Kampung 8	Kampung Sepatu	
11	Kampung 4	Kampung Kerupuk	
12	Sentra 12	Sentra Sepatu	
13	Sentra 4	Sentra Batik Karah	
14	Kampung 6	Kampung Paving	
15	Kampung 2	Kampung Handicraft	
16	Kampung 1	Kampung Bordir	
17	Sentra 8	Sentra Kerupuk Kembang	
18	Kampung 10	Kampung Tempe	
19	Kampung 5	Kampung Kue	
20	Sentra 14	Sentra Shompia	
21	Kampung 7	Kampung Penjahitan	
22	Sentra 15	Sentra Tempe Bendul Merisi	
23	Sentra 7	Sentra Kerajinan Kerang	
24	Sentra 16	Sentra Tempe Kedung Mangu	
25	Sentra 9	Sentra Kue	
26	Sentra 5	Sentra Penjahitan	



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## **CHAPTER 6**

### **CONCLUSION AND RECOMMENDATION**

This chapter presents a set of conclusion and recommendation for this final project. The conclusions are based on the objectives of this final project and the recommendations are intended for Dinas Perdagangan dan Perindustrian Kota Surabaya as well as the upcoming research.

#### **6.1 Conclusion**

Conclusions of this final project are:

1. A performance measurement system to measure the performance of micro enterprise and Kampung/Sentra under the Coaching Program of Dinas Perdagangan dan Perindustrian Kota Surabaya has been developed.
2. The proposed performance measurement system for Micro Enterprise has 7 performance criteria (Raw Material, Human Resource, Technology and Order System, Productivity, Financial Performance, Administration and Market) and 28 indicators. Similarly, the performance measurement system for Kampung/Sentra has 8 performance criteria (Raw Material, Human Resource, Technology and Order System, Productivity, Financial Performance, Administration, Market and Society) and 33 indicators. Out of 33 indicators, 28 are the aggregate and derived from 28 indicators of micro enterprise.
3. In order to make the performance measurement system works well, a simple dashboard using *Microsoft Excel* Software is created.

#### **6.2 Recommendation**

Recommendations of this final project are:

1. Dinas Perdagangan dan Perindustrian Kota Surabaya needs to assure that the information or data for the input of performance measurement is valid. One factor that will make a performance measurement system fail to

implement is the inaccuracy of the data. Data history is also important to set the new target in the future.

2. There should be briefing and training for the Coaches how to use the dashboard of performance measurement system in order to avoid error and thus make the performance measurement result inaccurate.
3. For future research, the performance measurement system may be able to implemented not only for the Micro Enterprises and Kampung/Sentra but also for the Coaches of the Coaching Program.
4. A web-based integrated dashboard to accommodate the performance measurement system may be required. Since there are multiple users, it will be better to implement a web-based dashboard. Thus the dashboard can be accessed separately.

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## **LIST OF ENCLOSURES**

### **ENCLOSURE 1**

Pairwise Questionnaire

### **ENCLOSURE 2**

Pairwise Questionnaire Result

### **ENCLOSURE 3**

Expert Choice Result of Weight and Inconsistency Value

### **ENCLOSURE 4**

Documentation of Discussion with Dinas Perdagangan dan Perindustrian Kota Surabaya



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# ENCLOSURE 1

## Pairwise Questionnaire

Table 1 Pairwise Comparison for Performance Criteria of Kampung/Sentra

CRITERIA	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	CRITERIA
Raw Material																		Human Resource
Raw Material																		Technology
Raw Material																		Productivity
Raw Material																		Financial Performance
Raw Material																		Administration
Raw Material																		Market
Raw Material																		Society
Human Resource																		Technology
Human Resource																		Productivity
Human Resource																		Financial Performance
Human Resource																		Administration
Human Resource																		Market
Human Resource																		Society
Technology																		Productivity
Technology																		Financial Performance
Technology																		Administration
Technology																		Market
Technology																		Society
Productivity																		Financial Performance
Productivity																		Administration
Productivity																		Market
Productivity																		Society
Financial Performance																		Administration
Financial Performance																		Market
Financial Performance																		Society
Administration																		Market
Administration																		Society
Market																		Society

Table 2 Pairwise Comparison for Indicator of Raw Material

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Availability of constant supplier																		Availability of internationally material purchase

Table 3 Pairwise Comparison for Indicator of Technology

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Number of semi-automatic and automatic equipment																		Order and delivery service

Table 4 Pairwise Comparison for indicator of Productivity

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Productivity of Micro Enterprise																		Availability of customer growth
Productivity of Micro Enterprise																		Availability of package and product design innovation
Productivity of Micro Enterprise																		Availability of new product type
Availability of customer growth																		Availability of package and product design innovation
Availability of customer growth																		Availability of new product type
Availability of package and product design innovation																		Availability of new product type

Table 5 Pairwise Comparison for Indicator of Human Resource

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Number of workers																		Percentage of the increase for the number of workers
Number of workers																		Number of workers with minimum education of SMA

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Number of workers																		Number of workers who come from the area of Kampung/Sentra
Number of workers																		Number of training participated
Number of workers																		Number of workers participating in training
Percentage of the increase for the number of workers																		Number of workers with minimum education of SMA
Percentage of the increase for the number of workers																		Number of workers who come from the area of Kampung/Sentra
Percentage of the increase for the number of workers																		Number of training participated
Percentage of the increase for the number of workers																		Number of workers participating in training
Number of workers with minimum education of SMA																		Number of workers with minimum education of SMA
Number of workers with minimum education of SMA																		Number of workers who come from the area of Kampung/Sentra
Number of workers with minimum education of SMA																		Number of training participated
Number of workers who come from the area of Kampung/Sentra																		Number of workers participating in training
Number of workers who come from the area of Kampung/Sentra																		Number of training participated
Number of training participated																		Number of workers participating in training

Table 6 Pairwise Comparison for Indicator of Financial Performance

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Revenue growth																		Working capital growth
Revenue growth																		Ever get fund/credit from financial institution

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Revenue growth																		Credit proportion to owner's equity
Revenue growth																		Number of funding resource other than owner's equity
Working capital growth																		Ever get fund/credit from financial institution
Working capital growth																		Credit proportion to owner's equity
Working capital growth																		Number of funding resource other than owner's equity
Ever get fund/credit from financial institution																		Credit proportion to owner's equity
Ever get fund/credit from financial institution																		Number of funding resource other than owner's equity
Credit proportion to owner's equity																		Number of funding resource other than owner's equity

Table 7 Pairwise Comparison for Indicator of Administration

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Availability of financial record																		Completeness of financial record
Availability of financial record																		Availability of job specialization
Availability of financial record																		Number of business license
Availability of financial record																		Number of product certification
Availability of financial record																		Availability of trademark
Availability of financial record																		Type of business entity
Completeness of financial record																		Availability of job specialization
Completeness of financial record																		Number of business license
Completeness of financial record																		Number of product certification
Completeness of financial record																		Availability of trademark
Completeness of financial record																		Type of business entity
Availability of job specialization																		Number of business license
Availability of job specialization																		Number of product certification

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Availability of job specialization																		Availability of trademark
Availability of job specialization																		Type of business entity
Number of business license																		Number of product certification
Number of business license																		Availability of trademark
Number of business license																		Type of business entity
Number of product certification																		Availability of trademark
Number of product certification																		Type of business entity
Availability of trademark																		Type of business entity

Table 8 Pairwise Comparison for Indicator of Market

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Market Spread																		Number of marketing event/exhibition participated

Table 9 Pairwise Comparison of Indicator for Society

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
Number of micro enterprises in a Kampung/Sentra																		Availability of cooperation among micro enterprises within a Kampung/Sentra
Number of micro enterprises in a Kampung/Sentra																		Number of meeting held by Kampung/Sentra
Number of micro enterprises in a Kampung/Sentra																		Percentage of developed micro enterprises
Number of micro enterprises in a Kampung/Sentra																		Percentage of declining micro enterprises
Availability of cooperation among micro enterprises within a Kampung/Sentra																		Number of meeting held by Kampung/Sentra
Availability of cooperation among																		Percentage of developed micro

micro enterprises within a Kampung/Sentra																			enterprises
Availability of cooperation among micro enterprises within a Kampung/Sentra																			Percentage of declining micro enterprises
Number of meeting held by Kampung/Sentra																			Percentage of developed micro enterprises
Number of meeting held by Kampung/Sentra																			Percentage of declining micro enterprises
Percentage of developed micro enterprises																			Percentage of declining micro enterprises

## ENCLOSURE 2

### Pairwise Questionnaire Result

Table 10 Pairwise Comparison Result for Performance Criteria (Expert #1)

CRITERIA	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	CRITERIA
Raw Material														v				Human Resource
Raw Material														v				Technology
Raw Material													v					Productivity
Raw Material													v					Financial Performance
Raw Material						v												Administration
Raw Material															v			Market
Raw Material					v													Society
Human Resource		v																Technology
Human Resource			v															Productivity
Human Resource								v										Financial Performance
Human Resource						v												Administration
Human Resource							v											Market
Human Resource				v														Society
Technology												v						Productivity
Technology														v				Financial Performance
Technology													v					Administration
Technology													v					Market
Technology					v													Society
Productivity								v										Financial Performance
Productivity					v													Administration
Productivity								v										Market
Productivity					v													Society
Financial Performance					v													Administration
Financial Performance								v										Market
Financial Performance					v													Society
Administration													v					Market
Administration					v													Society
Market					v													Society



Table 11 Pairwise Comparison Result for Performance Criteria (Expert #2)

CRITERIA	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	CRITERIA
Raw Material															v			Human Resource
Raw Material					v													Technology
Raw Material															v			Productivity
Raw Material																v		Financial Performance
Raw Material							v											Administration
Raw Material																v		Market
Raw Material							v											Society
Human Resource			v															Technology
Human Resource											v							Productivity
Human Resource													v					Financial Performance
Human Resource					v													Administration
Human Resource														v				Market
Human Resource					v													Society
Technology														v				Productivity
Technology															v			Financial Performance
Technology							v											Administration
Technology															v			Market
Technology					v													Society
Productivity															v			Financial Performance
Productivity					v													Administration
Productivity															v			Market
Productivity					v													Society
Financial Performance	v																	Administration
Financial Performance							v											Market
Financial Performance	v																	Society
Administration															v			Market
Administration							v											Society
Market			v															Society

Table 12 Pairwise Comparison Result for Raw Material Criteria (Expert #1)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
R1					v													R2

Table 13 Pairwise Comparison Result for Raw Material Criteria (Expert #2)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
R1			v															R2

Table 14 Pairwise Comparison Result for Criteria Human Resource (Expert #1)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
HR1												v						HR2
HR1												v						HR3
HR1												v						HR4
HR1													v					HR5
HR1												v						HR6
HR2						v												HR3
HR2												v						HR4
HR2									v									HR5
HR2												v						HR6
HR3												v						HR4
HR3												v						HR5
HR3												v						HR6
HR4												v						HR5
HR4												v						HR6
HR5													v					HR6

Table 15 Pairwise Comparison Result for Human Resource Criteria (Expert #2)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
HR1							v											HR2
HR1													v					HR3
HR1											v							HR4
HR1											v							HR5
HR1											v							HR6
HR2													v					HR3
HR2													v					HR4
HR2					v													HR5
HR2							v				v							HR6
HR3							v											HR4
HR3					v													HR5



F3												v					F7
F4																	F5
F4																	F6
F4																	F7
F5												v					F6
F5					v												F7
F6												v					F7

Table 19 Pairwise Comparison Result for Financial Perf. Criteria (Expert #2)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
F1											v							F2
F1							v											F3
F1																		F4
F1					v													F5
F1					v													F6
F1					v													F7
F2					v													F3
F2																		F4
F2					v													F5
F2					v													F6
F2					v													F7
F3																		F4
F3							v											F5
F3							v											F6
F3							v											F7
F4																		F5
F4																		F6
F4																		F7
F5									v									F6
F5									v									F7
F6									v									F7

Table 20 Pairwise Comparison Result for Administration Criteria (Expert #1)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
A1													v					A2
A1													v					A3
A1					v													A4
A1									v									A5
A1													v					A6
A1									v									A7
A2					v													A3

A2				v													A4
A2								v									A5
A2								v									A6
A2								v									A7
A3					v												A4
A3					v												A5
A3						v											A6
A3											v						A7
A4								v									A5
A4								v									A6
A5								v									A6
A7								v									A4
A7								v									A5
A7								v									A6

Table 21 Pairwise Comparison Result for Administration Criteria (Expert #2)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
A1											v							A2
A1											v							A3
A1					v													A4
A1							v											A5
A1							v											A6
A1							v											A7
A2											v							A3
A2								v										A4
A2								v										A5
A2								v										A6
A2					v													A7
A3					v													A4
A3							v											A5
A3					v													A6
A3					v													A7
A4											v							A5
A4									v									A6
A5								v										A6
A7									v									A4
A7										v								A5
A7											v							A6

Table 22 Pairwise Comparison Result for Market Criteria (Expert #1)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
M1							V											M2

Table 23 Pairwise Comparison Result for Market Criteria (Expert #2)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
M1					V													M2

Table 24 Pairwise Comparison Result for Society Criteria (Expert #1)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
S1					V													S2
S1									V									S3
S1							V											S4
S1							V											S5
S2												V						S3
S2					V													S4
S2						V												S5
S3											V							S4
S3													V					S5
S4							V											S5

Table 25 Pairwise Comparison Result for Society Criteria (Expert #2)

	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	
S1								V										S2
S1						V												S3
S1				V														S4
S1													V					S5
S2								V										S3
S2													V					S4
S2								V										S5
S3								V										S4
S3						V												S5
S4												V						S5

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### ENCLOSURE 3

#### Expert Choice Result of Weight and Inconsistency Value



Figure 1 Weight and Inconsistency Value with Respect to Raw Material Criteria

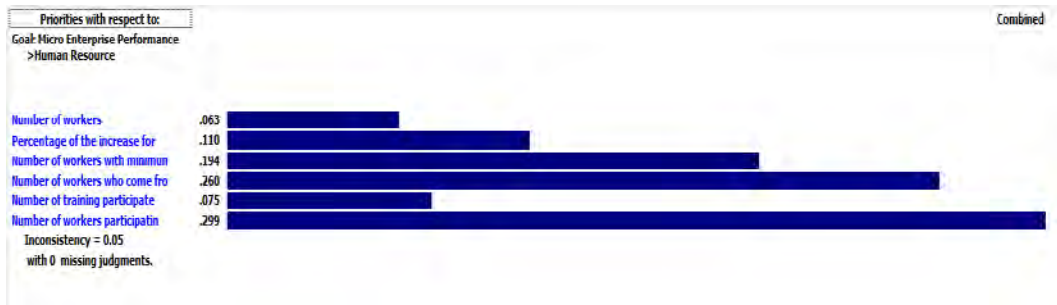


Figure 2 Weight and Inconsistency Value with Respect to Human Resource Criteria

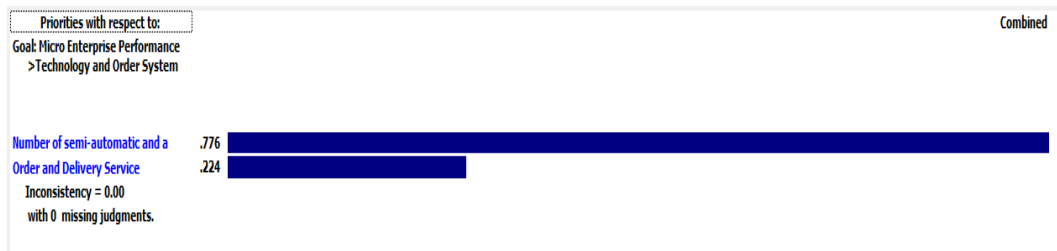


Figure 3 Weight and Inconsistency Value with Respect to Technology and Order System



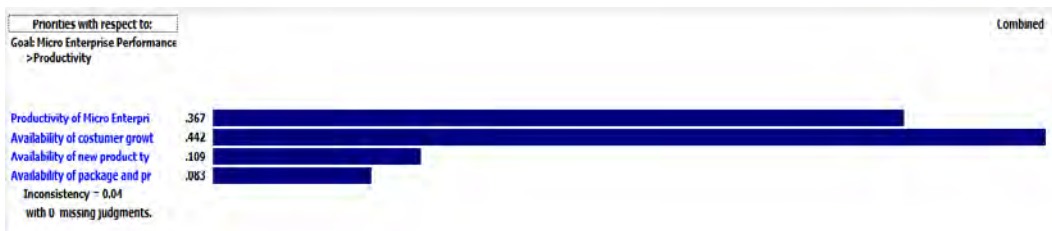


Figure 4 Weight and Inconsistency Value with Respect to Productivity

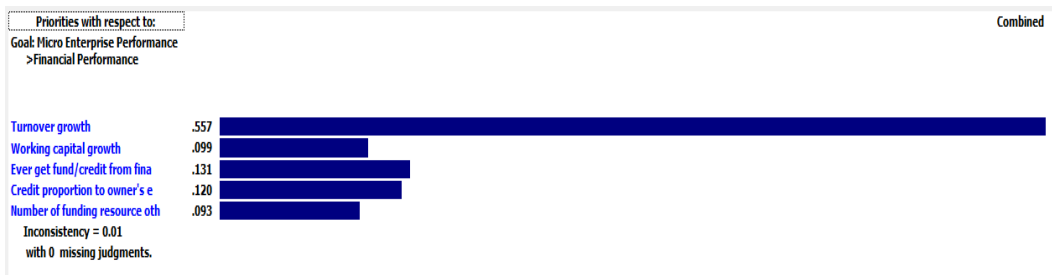


Figure 5 Weight and Inconsistency Value with Respect to Financial Performance

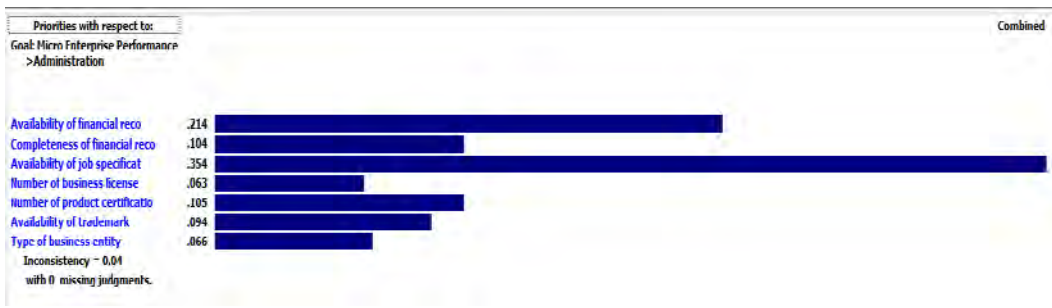


Figure 6 Weight and Inconsistency Value with Respect to Administration

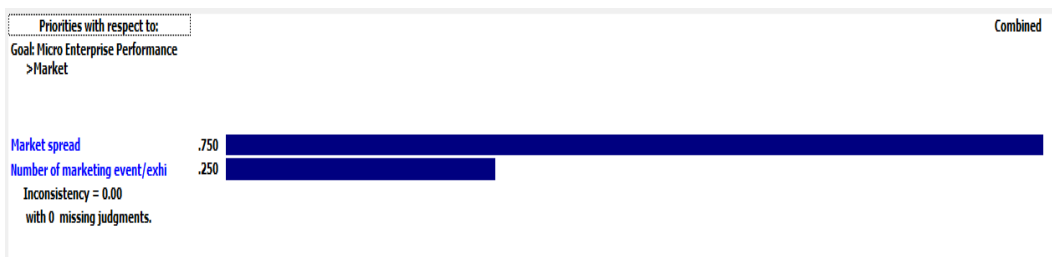


Figure 7 Weight and Inconsistency Value with Respect to Market

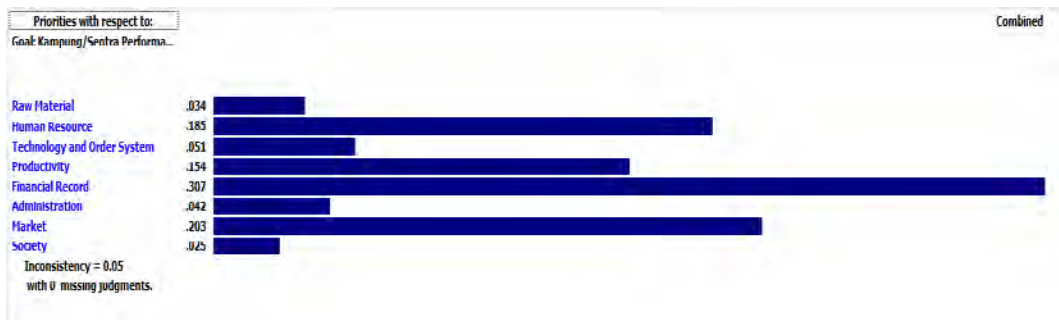


Figure 8 Weight and Inconsistency Value with Respect to Kampung/Sentra Performance Criteria

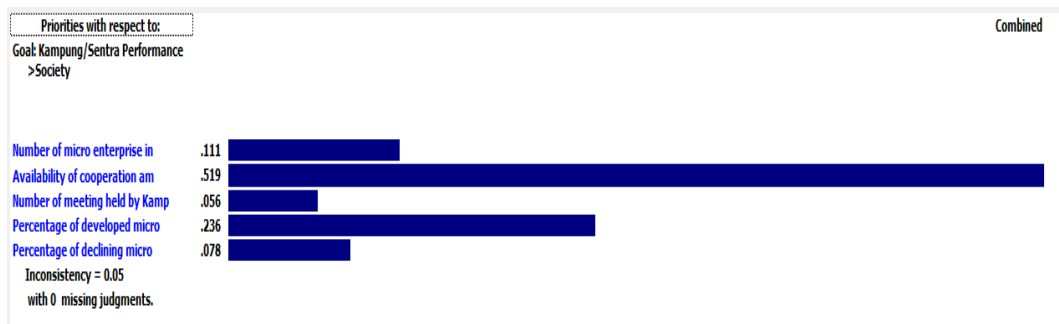


Figure 9 Weight and Inconsistency Value with Respect to Society

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## ENCLOSURE 4

### Coaching Form

#### FORM PENGISIAN KINERJA IKM

Nama IKM :  
Nama Kampung/Sentra :  
Bulan / Tahun :  
Nama Pendamping :

---

##### Kriteria: **Bahan Baku**

1	Ada atau tidaknya supplier tetap <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada
2	Ada/tidaknya pembelian bahan baku dari luar negeri <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada

##### Kriteria: **Sumber daya manusia**

1	Jumlah tenaga kerja	
2	Jumlah tenaga kerja dengan pendidikan diatas SMA	
3	Jumlah tenaga kerja yang berasal dari Kampung	
4	Banyaknya pelatihan yang pernah diikuti	
5	Banyaknya tenaga kerja yang pernah mengikuti pelatihan	

##### Kriteria: **Teknologi dan layanan pemesanan**

1	Jumlah alat produksi semi otomatis dan otomatis	
2	Jasa layanan pemesanan <input type="checkbox"/> Pemesanan harus dilakukan di tempat <input type="checkbox"/> Pemesanan dapat menggunakan media komunikasi (sms/telp/media sosial)	
	Jasa layanan pengiriman <input type="checkbox"/> Tidak ada layanan pengiriman <input type="checkbox"/> Ada layanan pengiriman (dikirim sendiri atau dengan jasa pengiriman)	

##### Kriteria: **Produktivitas**

1	Kapasitas terpakai	
	Kapasitas terpasang	
2	Banyaknya <i>costumer</i>	
3	Adanya jenis produk baru <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada	
4	Adanya inovasi kemasan <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada	
	Adanya inovasi bentuk produk <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada	

**Kriteria: Kinerja Finansial**

1	Jumlah Omzet	
2	Jumlah modal kerja	
3	Pernah/belum pernah mendapat sumber pendanaan dari lembaga pendanaan <input type="checkbox"/> Ya <input type="checkbox"/> Tidak	
4	Besar hutang saat ini	
5	Jumlah sumber pendanaan diluar modal sendiri	

**Kriteria: Administrasi**

1	Ada/tidaknya sistem pencatatan keuangan <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada	
2	Kelengkapan pencatatan keuangan <input type="checkbox"/> Tidak ada pencatatan keuangan <input type="checkbox"/> Ada laporan uang keluar masuk <input type="checkbox"/> Ada laporan omzet <input type="checkbox"/> Ada laporan laba rugi	
3	Ada/tidaknya sistem pembagian pekerjaan <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada	
4	Jumlah ijin usaha yang dimiliki	
5	Kelengkapan sertifikasi produk	
6	Ada/tidaknya Merek Dagang <input type="checkbox"/> Ada <input type="checkbox"/> Tidak ada	
7	Status badan hukum <input type="checkbox"/> Tidak ada <input type="checkbox"/> UD <input type="checkbox"/> Koperasi <input type="checkbox"/> CV	

**Kriteria: Market**

1	Sebaran geografis penjualan <input type="checkbox"/> Kelurahan <input type="checkbox"/> Kecamatan <input type="checkbox"/> Kota <input type="checkbox"/> Provinsi <input type="checkbox"/> Indonesia <input type="checkbox"/> Internasional	
2	Banyaknya kegiatan pemasaran/pameran yang pernah diikuti	

## ENCLOSURE 5

### Documentation



Figure 10 Discussion with Dinas Perdagangan dan Perindustrian Kota Surabaya

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## ABOUT AUTHOR



Firza Amelia Azzahra Hidayat was born in Surabaya, January 22, 1994 and is the only child in her family. She graduated from SD Negeri Kebraon 2 Surabaya (1999-2005), SMP Negeri 12 Surabaya (2005-2008), SMA Negeri 15 Surabaya (2008-2011). Soon after, she continued her education at Industrial Engineering Department of Institut Teknologi Sepuluh Nopember (ITS) Surabaya. Author has been actively involved in organizational activity since High School by joining OSIS and volunteering activity at International Office ITS from 2012 until 2015. While volunteering, she was a member of Event Division and Hospitality Division at International Office ITS. Author is also passionate in creating event and thus, she has participated in numerous events from local to international scale during her study in ITS. If you want to contact her, please send email to [firza\\_amelia@yahoo.com](mailto:firza_amelia@yahoo.com).