

## Assessment of Performance Based on Knowledge Management Scorecard to Increase Quality and Independence of Bkad in East Java

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### ABSTRACT

*Knowledge is one of forms of intangible assets that has very significant role to play in the development of organization. When an organization makes great investment in intellectual asset, the organization has to be capable of measuring the effect of knowledge management (KM) on the organization and is in accordance with the organization's vision and mission. The objective of the research is to bring about model of development of (KM) knowledge-management-scorecard-based performance and to formulate program for developing BKAD based on the intellectual asset. Target to be achieved is the formalized profile of knowledge management carried out by BKAD and design of developmental model of knowledge-management-scorecard-based performance and formulation of BKAD development. To achieve the objective, the research is carried out with the approach of participant observation. The result indicates that the assessment of KM scorecard in general provides adequately fine results when they are seen from four perspectives, those are intellectual, social, structural and humanity. The activities of human resource development (PSDM), natural resource development (PSDA), and economic resource development (PSDE) have resulted in economic increase, knowledge and skill increase, and have opened job opportunities and foster entrepreneurship opportunity. Seen from business development of real sector, BKAD has succeed to develop business of real sector based on areal resources which is in accordance with its regional potency.*

**Keywords:** knowledge-management-scorecard, human resource development, natural resource development, economic resource development

### INTRODUCTION

New concept in economy, i.e. “knowledge based economy”, says that tangible asset is no longer dominant variable in boosting the competitiveness, but knowledge is. The knowledge which exists in SDM and organization, is one of forms of intangible assets is no less valuable than other intangible assets, it is the most valuable element of intangible asset, since human variable is in fact as a decisive one of other intangible assets.

Knowledge that is connected to intellectual capacity encourages creativity in increasing productivity, drives to realize competitive world of business, and more efficient and state-of-the art ways of production (McElroy, 2003). The conclusion is based on findings about organizational performance, especially knowledge-intensive organizations (Bounfour and Edvinsson 2005; Lonnqvist and Mettanen).

The vital position of knowledge is also said by Alfred Marshall that knowledge is the most powerful machine of production (in Bontis 2005). Economy characterized with knowledge has four key characteristics; those are 1) research and education, 2) relation with growth, 3)

learning and capability, and 4) significance of transformation, even structural dominance, and social capital.

In the micro level, it is difficult to not relate development in the context of competitiveness and search for basis of competitive advantage. Economical value and competitive advantage from an organization lie in ownership and effective utilization of the organization's valuable, imperfectly imitable, and non-substitutable resources (Lewin and Phelan 1999). Therefore, competitive strategy has to be resided in activities of looking for, finding out, developing, and preserving two strategic resources, i.e. human and organization.

Phenomena of SDM transfer or turn-over from an organization become problematic, because the transfer of SDM is not just physical, but are skill and knowledge as well, which previously were parts of the organization.

Survey by EPRI (Strategic Human Performance Program) shows that 92% of organizations believe that loss of expert SDM will cause serious effects and an interesting fact is from 92%, only 30% of organizations which make knowledge transfer from expert to junior staff. This causes human become one of resource variables which has very significant role to play. That's why knowledge has to be well managed by organizations, where this concept is called by knowledge management (KM).

The concept of KM aims to increase and fix organizational operation in order to reach competitive advantage and increase profit. Knowledge management is to boost organizational capability to learn from its environment and combine the knowledge in the organization to create, collect, preserve and disseminate the knowledge. In the wider scope, knowledge management in organizations will become a foundation for emerging knowledge-based society.

When organizations make investments to collect knowledge asset, they have to be capable of measuring the effect of KM on organizations (tangible assets) and to be sure that what organization has been doing in order to collect knowledge asset is in accordance with organization's vision and mission.

Badan Kerjasama Antar Desa (BKAD) aims to realize people economic independence via development of regional potency oriented to acceleration of economic growth and creation of job opportunities. BKAD relies on capabilities of manager SDM.

One of ways for increasing added value of BKAD is by boosting intellectual capital of the BKAD. This is based on the fact that BKAD is formed as an agency that will help people to develop their productive economic activities to wider scope, as an agency that serves to eliminate poverty, so the success of the program heavily depends on SDM (human resources) of manager of the BKAD. Therefore, elements in the knowledge management such as knowledge creation, knowledge transfer and knowledge dissemination will become standard or benchmark whether the organization develops or not.

This research aims to discover model of development of knowledge management scorecard-based performance and formulate the program to develop BKAD based on intellectual assets owned by BKAD. The model is developed by adapting the concept of Balance scorecard. Through the model it is expected that development of performance focused on intellectual capital of the BKAD and other agency or organization will be submitted as reference for developing organizations.

**METHOD OF RESEARCH**

Design of research uses descriptive research after the existing data and information are processed based on perspective of KM Scorecard. The KM Scorecard is modification of the concept of balance scorecard (BSC), so the phases of the research follow the rule of BSC. Examination in the knowledge management can be seen from four perspective, those are intellectual, social, structural and humanity. Unit of analysis is administrator of the BKAD.

Locations of the research comprise 3 regencies in province of East Java:

- a. Desa Batu Kerbuy, Tlontoraja and Sotobar Kecamatan Pasean Kabupaten Pamekasan
- b. Desa Mojo, Mojosari and Ngrigin Rejo Kecamatan Kalitidu Kabupaten Bojonegoro
- c. Desa Blayu, Kidangbang and Sukoanyar Kecamatan Wajak Kabupaten Malang.

The main object to become base for formulating model of performance development and formulation of development strategy of the BKAD is by observing intellectual capital and how administrators of the BKAD manage knowledge and identify variables which influence knowledge management.

Analytic framework is made by adopting the concept developed by Fairchild (2002), i.e. KM Scorecard with variables of research as follows:

**Table 1 Variables of research**

<i>Perspectives</i>	<i>Strategy</i>	<i>Variables</i>
Intellectual	Strategy to bring about intellectual capital	Information, invention, innovation
Social	Strategy to develop good relationship, build reputation, get trust in collaboration (cooperation)	Interaction, reputation, dissemination, collaboration
Structural	Strategy to create process, culture, and good working climate	Infrastructure, organizational knowledge, individual knowledge transfer to organizational knowledge, technology of knowledge transfer, policy, rule, target, goal, culture, atmosphere
Humanity	Strategy to develop knowledge of worker in the intellectual, expertise and commitment to result in knowledge	Individual capability, expertise, knowledge, experience, attitude and commitment

Technique of data collection is made by: 1) observation; 2) questionnaire distribution; 3) in depth interview; 4) FGD; 5) study of literature. Then data are analyzed to formalize target of priority and alternative strategy. Steps in the analysis of data:

1. To identify descriptively data obtained from observation, interview, questionnaire and FGD.
2. To analyze knowledge management of the BKAD by using perspective of KM Scorecard.
3. To develop model of KM Scorecard and formulate the strategy aims to achieve the target of strategy and measurement of output.

## **RESULT AND DISCUSSION**

Program of development of areal-based local resources (P2SLBK) is one of programs of poverty elimination and unemployment handling stressed on real sector based on areal actual potency. The goal of the program is to realize economic independence of the people via development of areal potency oriented to the acceleration of economic growth and creation of job opportunities, directly affecting on decreasing number of poverty. The target of the program is the people activities of productive economy potentially to be developed and have support of natural resource, SDM, and other economic potencies including the existing business network that can be strengthened to accelerate economic growth.

Formation of BKAD was facilitated by government of Province east java, non-government organizations and LPM via pilot project in 8 regencies in Province East Java in 2005 to 2014 has been implemented in all regencies/municipalities in East java.

### **Analysis of the BKAD based on Perspective of KM Scorecard**

#### ***Intellectual Perspective***

In the intellectual perspective, the focus is on how to make intellectual capital by way of increasing capabilities to get knowledge and expertise or skill, and bring about invention and innovation.

The activities for obtaining and increasing knowledge and skill adding to organizational value are carried out via program of human resource development (PSDM), in the forms of training, comparative study and apprentice to boost technical skill, managerial skill and entrepreneurship skill.

Analysis of this activity is based on the rule as follows; 1) Good if average score is 1.00 – 2.00; 2) sufficient if average score is 0.50 – 0.99; 3) less or minus if the average score is 0.00 – 0.49.

The analysis of PSDM activities indicates the results as follows:

1. Score of recipient development is 1.33
2. Score of economic increase is 1.17
3. Score of knowledge and skill increase is 1.58
4. Score of development of the availability of job opportunities is 1.17

It can be concluded that in general the activities of PSDM are scored as developing; it can be seen from viewpoint of recipient development, economic increase, knowledge increase and the availability of job opportunities.

In addition to benefit felt by recipients, the activities to find out information and knowledge by BKAD are carried out as well via training, especially administrative and managerial training implemented for development of economic resources (PSDE).

The activities of PSDE are carried out in the forms of productive economic business and providing business credit. The patterns of management are via self-managed, partnership and saving-borrowing. The activities of partnership and self-managed are supposed to develop areal-specific business. The self-management is the activity managed directly by BKAD via business unit formed according to the needs, whereas partnership is the business managed directly by BKAD in the form of mutual-advantageous collaboration (cooperation) but it still considers the development of local resources and absorption of work force.

Analysis of activities of PSDE indicates results as follows;

1. Score of recipient development is 1.33 for self-management and partnership, and 1.67 for saving-borrowing
2. Score of economic increase is 1.33 for self-management and partnership, and 1.67 for saving-borrowing
3. Score of knowledge and skill increase is 1.33 for self-management and partnership
4. Score of development of the availability of job opportunities is 1.33 for self-management and partnership, and 1.67 for saving-borrowing

It can be concluded, based on average score, that the activities of PSDE have been useful for developmental increase of recipients, economic increase, knowledge and skill increase and increase of job-opportunity availability.

Program P2SLBK stresses activities of economic resource development (PSDE), and it also focuses on productive network, services and activities of development in the form of digging potential resources, expansion of industry, trade, services and other investment capable of creating job opportunities and boosting welfare of poor people.

The activities of PSDM and PSDE have created various innovations proved to be useful in supporting development of real sector based on areal resources, those are:

1. Real sector activities developed by BKAD Surya Abadi Bojonegoro are fruit farming, plant and processed products of star fruit developed to become centre and tour of picking starfruit.
2. Real sector business developed by BKAD Kanjuruhan Malang is cultivation of Mendong and handicraft which uses Mendong as basic material.
3. Real sector activities developed by BKAD Bataso Pamekasan are fishery management and output processing of fish.

Activities of PSDA are made in the forms of rehabilitation and conservation of natural resources and development/rehabilitation of infrastructures which can support empowerment of local resources implemented by way of self-management.

Analysis of the activities of PSDA shows results as follows:

1. Score of recipient development is 1.8

2. Score of economic increase is 1.6
3. Score of knowledge and skill increase is 0.4
4. Score of development of the availability of job opportunities is 1.6
5. Score of environmental quality enhancement is 1.8

Based on the score, it means that activities of PSDA benefit to, or are useful for, recipient target increase, enhancement of economy, availability of job opportunities, environmental quality which can support empowerment of local resources, except for enhancement of knowledge and skill.

### **Social Perspective**

This perspective focuses on how to build a good relationship, build reputation, and get trust in the collaboration (joint venture) so that one can maintain, increase number of accesses for people into the program, people's satisfaction about the program.

Based on participative principle, decision-making in the activity management is carried out by increasing involvement of all actors (stakeholders) of program, in particular poor group. The stakeholders involved in the activities of P2SLBK are:

- 1) Badan Pemberdayaan Masyarakat Provinsi Jawa Timur as operational implementer of P2SLBK in the province
- 2) Tim Fasilitator Provinsi is the team that supporting Bapemas Provinsi in managing the program. TFP consists of experts from universities which have experiences in the area of people empowerment.
- 3) Badan Pemberdayaan Masyarakat Kabupaten as operational implementer of P2SLBK in the district or regency. Other form of active involvement of regional government is by granting sharing-fund.
- 4) Pemerintahan Desa (rural government) is supervisor of the program manager.
- 5) Badan Kerjasama Antar Desa is program manager as coordinator of inter-rural cooperation in developing local resources based on area.
- 6) Unit Pengelola Kegiatan dan Usaha (UPKu) is financial manager and saving-borrowing activity in each village.
- 7) Pendamping program/fasilitator kawasan is counterpart of the community, who comes from university.
- 8) Community or people are program recipients.

Implementation of the social perspective is in the forms of interaction, cooperation, collaboration and dissemination and activity to build reputation is via mechanism of coordination, money and responsibility. Interaction between BKAD and community is carried out by way of program of PSDM, PSDA, and PSDE realized in the agenda of meeting that has previously been planned.

Analysis of this activity is based on the rule as follows; 1) Good if average score is 1.00 – 2.00; 2) sufficient if average score is 0.50 – 0.99; 3) less or minus if the average score is 0.00 – 0.49.

Score for interaction, coordination and cooperation is 1.8, so it can be said that interaction and coordination between BKAD and community, administrators and other stakeholders is scored good. The level of administrator presence is very high on every working day. Most of administrators always do well their jobs and responsibilities.

This program has stimulated and increased public spirit to be entrepreneurs. This can be seen from high interest of the people to build collaboration and cooperation with BKAD in developing their businesses or opening up new business. This cooperation (i) facilitates public access to get soft credit, and (ii) increase income for customers. Management of UEP has also provided income to rural PAD, social fund.

Regional governments in three districts are assessed fairly active to get involved in supporting the implementation of P2SLBK. Sektap coordinates and carries out money minimally 1x in 1 month, except Sektap Kabupaten Malang.

### **Structural Perspective**

This perspective focuses on how to create favorable process, culture and climate of working. Analysis of this activity is based on the rule as follows; 1) Good if average score is 0.80 – 1.00; 2) sufficient if average score is 0.50 – 0.79; 3) less or minus if the average score is 0.00 – 0.49.

Analytical result of management of BKAD indicates that 3 BKAD P2SLBK have good achievement or performance of agency management with score of agency activity 1, facility and infrastructure 0.94, administration 0.9 and agency performance 0.94.

UPKu also has good achievement in managing the agency with score of agency activity is 0.89, facility and infrastructure 0.76, administration 0.85 and agency performance 0.83. 6 UPKu P2SLBK have good achievement or performance of agency management and 3 UPKu have sufficient performance of agency management.

### **Perspective of Humanity**

This perspective focuses on how to build and develop knowledge worker in intellectual, expertise and commitment to bring about knowledge concerning female potency, capability of implementation, of distributing knowledge and of enhancing the knowledge.

BKAD and UPKu are managed by administrators with educational background of senior high school to educational level S1 from such various occupations as teachers, civil servants and private workers, it can be concluded that from the aspect of fairly good knowledge and education, they can well manage the BKAD and UPKu.

## **DEVELOPMENT OF MODEL OF KM SCORECARD**

Steps to achieve strategic target from perspective of KM Scorecard

### **Intellectual Perspective**

Benchmarks to measure intellectual perspective are as follows

#### ***Increase of Types of Business, Products/Services Sold To Public***

In order to increase added value of economy, BKAD must be capable of managing intellectual assets by continually sharpening the knowledge and skill, and keep trying to make invention and innovation so that it can increase the number of products/services.

### ***Increase of Income***

This measurement is used to find out the capability of BKAD in providing economic benefit obtained by way of enhancement process of knowledge and skill, invention and innovation.

### **Social Perspective**

The activities in this perspective are

1. To do interaction to dig knowledge and offer extra services to the customers, for example to create hotline or advise box to collect customer complaints with a help from system of database and then look for the solutions.
2. To build cooperation and collaboration with various stakeholders in order to develop business and expand network.

The benchmarks used in this perspective are:

### ***Customer Acquisition***

Customer acquisition is the capability of BKAD in obtaining new customers. This acquisition is measured by looking at growth of number of involved people and those who use products/services/business of BKAD, if the increase occurs, it means that BKAD can bring about the acquisition to the public/customer.

### ***Customer retention***

Customer retention measure level of BKAD capability in maintaining its relationship customers, If the number is constant or increasing, then BKAD has been capable of maintaining the customers.

### ***Customer Satisfaction***

Customer satisfaction can be assessed by way of measuring the number of incoming complaints, including unsatisfied service and response to the complaints and how customers to be loyal to keep using products/service offered by BKAD.

### **Structural Perspective**

The activities in this perspective are: 1) to create teamwork who is responsible for sharing knowledge, b) to apply database or others; 3) to publish yearly report containing intangible assets.

Benchmark used in this perspective is process of operation. This process requires the availability of SOP (Standard of operational Procedure) that will become benchmark of implementation of operational process. SOP indicates activities which begin with order/submission of credit and end up with delivery of products or services to the customers or realization of credit. This process focuses on efficient, consistent, and on-time delivery of products or services to the customers.

### **Humanity Perspective**

The ways which can be carried out are

- 1) To make system of SDM based on KM, to create working climate that encourages transfer of knowledge and support program of education with

technology of education and learn from various trials and simulation of program/policy.

- 2) To create system of numeration providing reward to those who are successful in implementing the sharing of knowledge.
- 3) To publish magazine/media to encourage process of learning by way of writing by him/her self or by teamwork.

Benchmarks used in this perspective are:

### ***Worker Retention***

Retention of worker is to see level of worker turn-over by comparing the outgoing number of workers with total number of workers.

### ***Worker Productivity***

Productivity of worker is measurement of output, i.e. all activities of worker's moral and skill, innovative enhancement, internal process and customer satisfaction.

### ***Worker Capability***

In order to boost capability of workers, BKAD can invite managers in the activities of seminar and training.

## **CONCLUSION**

Based on results of the research, it can be concluded that

1. Implementation of program has been in accordance with the specified process and mechanism in SOP and SPP P2SLBK
2. Function and role of facilitators consist of facilitating program ranges from socialization, holding musdes, managing the agency of BKAD and UPKu, implementing PSDM, PSDA, and PSDE, to monitoring and preserving the program.
3. Management of KM in the perspective of KM Scorecard in general works well and has resulted in economic increase, enhancement of knowledge and skill, opened job opportunities and developed opportunities of entrepreneurship and successfully developed real sector business based on area resources which in accordance with regional potency.

It is necessary therefore to be continuously carried out an effort to develop the better capability of knowledge management (KM) in order to enhance professionalism of management and BKAD performance.

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