

# Upgrading SME's Business by ICT

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**Abstract-** Small Medium Enterprises in Central Java, Indonesia have been proved to be survived in the global economic crisis some years ago. However, even though the number of SME are more than 95% from total of business in Central Java, SME can not be the leading factor in the economic. Some of those SME tend to be weak because of the conventional strategy in their business. ICT can be used as one of tools to empower the SME business.

This paper will explain the research that has been done to respond the problem on implementation of ICT in the SME business. The strategies to introduce the ICT to SME and to upgrade the SME level of marketing will be discussed on this paper. By using qualitative method and action research that involving the ICT, the research looks for the best strategy in the ICT implementation for SME.

A portal of SME based on ICT was created on the research as the result. The easiness on using the ICT is the key on this strategy. The socialization and workshop on using the ICT are also able to push the capability of SME to increase their coverage of market and size of their business. The collaboration between stakeholders can be created easier by using ICT.

**Keywords-** empower SME, ICT, SME, upgrading business

## I. BACKGROUND

The success of SMEs to be the backbone of the economy is no doubt anymore; both in terms of labor absorption, toughness face the economic growth and ability to contribute to GDP. In 2006, the numbers of SMEs in Indonesia are 48.9 million units, or reach 99.99% of total business units in Indonesia [7]. The role and number of SME spread almost equally in Indonesia, including in Central Java. SME in Central Java are regarded as one of the pillars of development, in addition to the field of tourism and agribusiness.

Although have the major role, in their daily lives most of the SME can be said "can't live won't die." If the condition of SMEs could be strengthened and developed, then their role could be optimized. SMEs development efforts have been made by some parties but not well coordinated. On the other hand, the SMEs itself are difficult to get information and access the support, guidance, and facilities. Moreover, SMEs are also isolated from the market. Even though the products meet the international market though, they must pass through an intermediary. As the result, the intermediary eventually enjoys the benefits. SMEs also lack of information from external causes, especially overseas. It is hard to invite collaboration for them.

Actually, a lot of stakeholders tried to role in SME development. To optimize the SME business, these stakeholders need to be coordinated in a comprehensive and

integrated [4]. Because of the wide scope that must be coordinated, it should be supported by information systems and communications technology (ICT). Information system support is also needed by SMEs, especially if they are doing business globally [2]. SMEs are difficult to grow because they have difficulties in access to markets. The market who does not know the potential of SMEs and SMEs are often considered not able to make cooperation with them. In other side, SMEs are also often do not know what the market wants, who the market to be served, how to contact or trade with the market, and so on. Even though the SME products meet the requirements of the global market, SMEs are forced to interact with global markets through intermediaries, and the biggest margin is enjoyed by these intermediaries.

This paper will investigate the function of ICT in helping SMEs businesses, and find technology (ICT) is appropriate for the SMEs. Furthermore, it will find the strategy of the implementation using ICT in SMEs.

## II. LITERATURE REVIEW

The invention in the field of information technology has proven to be a tremendous innovation for businesses. Literature review conducted by Melville has found that information technology can improve the performance of business organizations [1].

Information Technology is having a tremendous impact on Small and Medium Enterprises (SME). Physical workspace of SMEs companies based on geographically is no longer significant resources. The factors that regulate expansion of the company on the new global economy are the mindset of management [1].

ICT plays a very important role because it can help SME in creating business opportunities, reduce costs, improve their product through faster communication with

their customers, promote and distribute their products through online.

Although ICTs can make benefit for SMEs in various ways, SMEs in the Asia Pacific was slow in adopting ICT. The main constraint are on the poor telecommunications infrastructure, inability to integrate ICT into business processes, high cost of ICT equipment, incomplete government regulations for e-commerce and a poor understanding of the dynamics of the knowledge economy [8].

This research on SMEs in Central Java has found several limitations of SMEs in using ICT [6], are the lack of connection or the still high cost of internet connection for them and they do not yet know how to use the Internet for business purposes (especially online business).

Moreover, previous studies also found that the socialization of the use of ICT for business purposes must be done by offline in the form of lectures, seminars, FGD, etc [5].

Based on of the limitations of SMEs in using ICT and the purpose of sustainability of online business, the results of previous studies, the findings are open-source software WordPress Multi User that can be customized and used as an online store for SMEs [5].

## III. METHODOLOGY

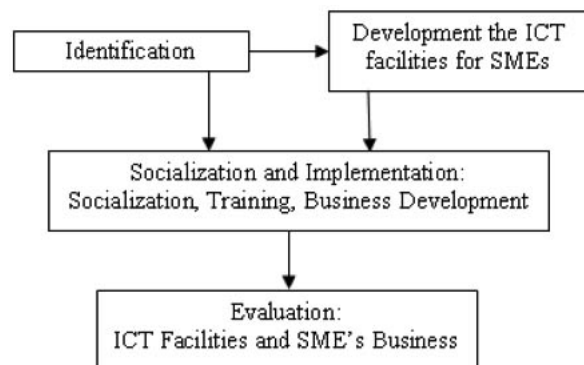


Fig. 1 Methodology

The first step, Identification of SME and ICT was done on the life of SMEs,

including their needs in business, ordinary stakeholders to provide ICT facilities and skills in using ICT. Data collection for the identification and interview conducted by distributing questionnaires to the SME and the stakeholders about their activities, needs and constraints of ICT to business in the use of ICT. The data obtained will be analyzed descriptively to describe the abilities, motivations, barriers and things that are desirable in participating. Then FGD will be performed to meet all users to formulate a common need in improving the optimization of the SME Center.

Second step, development of ICT facilities for SME's Business to develop the internet based SMEs business, based on the need of SMEs and use technology that can be mastered by the SME.

Third step is socialization and implementation. The facility to develop the SME business must be socialized to invite interest of the SMEs and the stakeholders to join. Socialization is also done by providing training on the internet, email, website management, and electronic transactions. The training provided to SME. Furthermore, SMEs can use ICT facilities for business activities

The fourth step is evaluation and modeling. The evaluation addressed to the SME Center, and the development of SME business that already joined.

#### **IV. FINDINGS**

##### ***A. Identification of SME and ICT in Central Java***

From the identification of SME and ICT in Central Java, there are many stakeholders that help SME's life in Central Java. SMEs stakeholders have a variety of activities and role in developing the SME. The stakeholders in carrying out its activities will relate to various parties including the SME as a partner held families together, funding sources, suppliers and some other resources.

In the interest of SMEs, the SME Center which was formed in the Chamber of Commerce will gather stakeholders who deal directly with SME (will guide SMEs).

In this case the agency has been identified by groups as follows:

1. State-Owned Enterprises (SOEs)
2. College
3. NGO
4. Bank
5. Business Group (associations etc)
6. Private Company
7. Government

Each of the above stakeholder groups has several activities and interests.

Identification of information needs required in SME development efforts include:

1. Access to credit
2. Access to capital
3. Opportunities for product development
4. Market information including:
  - a. regional marketing
  - b. buyer profile
  - c. trends
  - d. market preferences
  - e. opportunities for product development
  - f. expansion of both domestic and international market
5. Price information
6. Competition information
7. Materials information
8. Supplier information
9. Distributor information
10. Information training needs such as:

- a. Training design product development
- b. Skill development training human resources
- c. Training marketing communications (promotional design)
- d. Bookkeeping training SMEs that bankable
- e. Financing with a bank intermediation Training
- f. Extension of taxation and sunset policy
- g. Training counting the cost of production
- h. Training of the selling price (www.informasi-training.com)

A variety of information will substantially assist neither the perpetrator SME nor its companion as an effort in optimizing the empowerment of SME.

Almost all respondents have used SME Knowing that the Internet and operate, minimal use of email.

The greatest barrier to respondents in the use of the Internet is no connection or the still high cost of internet connection for them.

Facilities owned SME in their activity using the internet that usually notebook or PC. Most of them never do activities using the Internet by utilizing the services and facilities in the internet cafe. A few of them already have a personal connection at home.

Almost of them do not have a website for business purposes. Some of them have been using the blog to inform its business activities.

**B. ICT Facilities for SMEs**

In the SME life in Central Java are always associated with the stakeholders [6]. Therefore ICT for SME Facility was built to

be a bridge connecting the two interests can be summarized in the following table.

**TABLE I**  
COMPARISON OF SUPPLY AND DEMAND

SMEs (Demand)	Stakeholder (Supply)
Access to market	Microfinance
Access to resources	Capacity building
Access to funding	Networking
Increasing capacity	

Source: R. Wulandari, R. Untari, R. Sanjaya, 2009

The facility built for business development of SME Central is SME under the management of Central Java Chamber of Commerce. Internet-based SME Central is located in <http://UKMsentral.com>. The interface of SME Central can be seen below.



**Fig. 2** Interface of SME Central Website

The front page of SME Central (UKMsentral.com) displays the information of Micro Finance, Upcoming Events, E-Learning, Training, Newsflash, Activity, Success Profiles, Opportunities, and Form guidance.

Then the facilities on the website are described below. Newsletter is a facility to follow the development of UKMsentral.com information via email. Translator is a facility to make easy foreign visitors to find information within UKMsentral.com. New E-Commerce is a facility to display a list of five SMEs had just joined. Gallery is a facility to display 4 random products from the SMEs in UKMsentral.com. Articles from the Community are a facility to display the

latest information from the SMEs in UKMsentral.com. E-Commerce Site is a facility to display the entire list of SME in the UKMsentral.com

### C. Socialization and Implementation

Socialization SME Center was done by training activities. Training activities are preceded by recruiting participants through advertising, notification by mail, and so forth. However, very little open interest of participants that reached by other means is by way of presenting or giving a direct explanation to the SME. In this way, the intent and purpose of training can be clearly understood. In conclusion to increase SME participation in the activities of SME Centers need to be giving a verbal explanation.

There are 3 stages of training that needs to be done. The first are the techniques to display products through UKMsentral.com. The second are the techniques for the promotion of SME website. And the third are the techniques to handle transactions on the SME website

Each stage will be reviewed on successful implementation of each stage and there will be rewards each year for the SME that is active. As the implementation after the training is held, there are 30 Sites Ecommerce in the UKMsentral.com: Agen Alat-Alat Olahraga (Sports Agent Tools), Agasacraft Designs, Urania Modiste 17, reztycollectionshop, Batik Gemawang, Mr Stenlis, Krupuk Tiara, Clothes Label Clothes Label and Hang Tag, and Sanggar Semarang.

## V. CONCLUSIONS

Based on the above analysis, the SME business can be improved with ICT facilities for strengthen marketing activities (ecommerce). The requirements are described below.

Adequate facilities, the resulting research facility is provided to PPSME (Center for Development of SME) Chamber of Commerce of Central Java. SME Development Facility with using internet

technology poured in www.UKMsentral.com. The facility is equipped with a simple technology that can be reached by the SME [3].

Coaches, is the goalkeeper coach and www.UKMsentral.com PPSME. These coaches are actively online or offline will guide the development of SME business. Some activities are doing some training, business meeting, in connecting with the stakeholders and so on. The builder is actively should be ready to receive questions or needs of SME consulting, updating data and so forth.

Stakeholder, are the parties involved in the situation of SME development. Stakeholders can come from academia, the company (CSR), banking, and others. These agencies have special programs SME development, such as microfinance, community service institutions, and so on.

SME, in terms of SME development is the target recipient. More over, SMEs in the SME Central also has an active role in business activities (e-commerce).

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