

DEVELOPING SMALL AND MEDIUM-SIZED ENTERPRISES WITH INNOVATIVE TRANSFER METHODS

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Abstrack

Results Research conducted by Bank Indonesia (2007) found that small businesses in East Java still encountered several obstacles including 1) limited government coordination on empowerment of small businesses, 2) inadequate appropriate technology, 3) no restrictions on the entry of imported products, 4) the absence of a master plan for structuring and fostering small businesses, 5) the inaccuracy of the small business data base (especially non-formal), and 6) the low trust of financial institutions (banks). The problem that arises is the statement that small businesses in East Java are still dominated by low technology (non high tech), which limits them in innovating. This is compounded by weak innovative power and market access capabilities who do not have sustainability. A systematic innovation design is needed so that low-tech small businesses have the capability of innovation and increase their competitiveness. This study seeks to find out the systemic model of sustainable innovation and the competitiveness capabilities of low-tech small (non high tech) businesses in East Java. Keywords: sustainable innovation, technology, competitiveness

CHAPTER I. INTRODUCTION

1.1. Background Issues

Small businesses in East Java still encountering some obstacles such as 1) the limited coordination of government to empower small businesses, 2) not optimal appropriate technology, 3) the absence of restrictions on the entry of imported products, 4) the absence of a *master plan* structuring and development of small businesses, 5) is not accurate data base of small businesses (especially non-formal), and 6) confidence in financial institutions (banks) are still low (Bank Indonesia, 2007). Based on the Base Line Economic Survey data in 2007 it can be observed that small

businesses in East Java have a diversity of products that have low technology.

This study focuses on low-tech small businesses in the production of typical foods and beverages (typical mamin), convection and embroidery, furniture, and handicrafts. Despite using low technology, it is believed that innovation is still needed in order to compete. Innovation is the key to success in increasing business competitiveness (Shapiro, 2002). That is, small businesses need to innovate in order to design more flexible organizations that allow adaptation to changes in market orientation. Small businesses can easily adapt by responding to changes in customer desires, distribution channels, and

innovation capabilities (Feigenbaum and Karnani, 1991).

The problem that arises is how systemically small businesses that use low technology (non high tech) are able to innovate continuously and improve their competitive capabilities, so that the limited technology they experience in production activities does not prevent them from increasing their competitiveness and innovation.

There is not much research related to the ability of innovation that is systemically able to provide an alternative strategy for sustainable innovation so that small businesses that only have low technology (non high tech) are still able to innovate continuously. This research is important because small businesses in East Java mostly still use traditional / low technology and many low managerial and innovative behaviors

1.2. Special purpose

The specific objectives in this study are:

1. Attempting to find the characteristics of low-tech small businesses (non high tech) in East Java.
2. Find a systemic model of sustainable innovation of non high tech small businesses in East Java
3. Find increased competitiveness capabilities of non high tech small businesses in East Java

CHAPTER II. LITERATURE STUDY

2. 1. Small Business Capability

Small business capability can be seen from the important role in strengthening the structure of the national economy. The importance of the position of the small business sector is not only to strengthen national

industry, but also because it relates to the lives of most Indonesian people. The small business sector has a big role in the overall economic development of the nation. In 1998 (post-crisis), the number of small and medium-sized businesses (SMEs) reached 99.8% of our total economic actors, while the remaining, namely only 0.2% were large business actors. This shows that the majority of our economic actors are small and medium enterprises. This sector also absorbs 88.3% of the total Indonesian workforce. All existing small business units, 54% of which are engaged in the agricultural sector, 23% in the trade sector and 10.6% are processed industrial business units. This fact shows the importance of empowering small businesses in Indonesia (Karjantoro, 2002)

Base Line Economic Survey (BLES) conducted by Bank Indonesia (2007) managed to identify 10 regional superior commodities. This confirms that the province can focus on developing the local potential that it has so that it can increase its regional income. The BLES results generally found that the problems of Small and Medium Enterprises (SMEs) were 1) Limited coordination between government agencies related to the development and empowerment of MSMEs 2) The accuracy of data on strong and independent SMEs was still low, 3) Not yet optimal utilization of appropriate technology, 4) There is no restriction on the entry of imported products, especially from China, 5) The absence of a *master plan* for structuring and fostering small and small-scale handicrafts / PKL industries that are intact, 6) Not yet accurate in small industry / folk handicraft *data bases* / PKL (especially non-formal), 7) Trust

of (large) financial institutions is still low.

2.2. Small business innovation competencies

Small business innovation competencies can be seen in several perspectives. Innovation competency is interpreted as the ability to create, gain access and to coordinate tangible or intangible assets (Ko and Lu., 2010). Competition of innovation in the form of the control system implementation techniques, skills and knowledge, managerial systems, norms and values, competence of technology and market competence. This is supported by Tidd (2000) who says that there are no basic competencies that small businesses must possess, namely technological, organizational and market competencies. Slightly different from the results of the research put forward by Ritter (2006) which says that competence must include product, process, market and communication competence.

In its development, there is a competency integration process if the small business is engaged in the service sector, namely by providing several additional competencies needed. This reality is realized because the service business is more *complicated* in the aspect of marketing, or service orientation to consumers. Some things needed include: 1) *customization capabilities*, where small businesses must be able to consistently adjust to customer needs, and be able to meet what is desired by customers (Ko and Lu, 2010). 2) *human resources capabilities* are needed in improving the innovation process of small business production. This has

implications for improving the skills and knowledge of employees so that the innovation process can run *sustainably* and enable them to improve their competitiveness capabilities. 3) the characteristics of the product to the attention of the competition also in small businesses. Diffusion of innovation requires five basic characteristics, namely relative advantage, *compatibility*, complexity, *observability*, and *testability* (Roger, 1983). This is the basis that the diffusion of innovation will be easier to do if it meets the five elements above.

Further development of small business innovation competencies also contains more detailed elements in terms of marketing aspects, namely with customer relationship management competencies and product commercialization capabilities (Martinich, 2005). Research conducted by Hipp and Group (2005) adds the dimension of the ability to develop product / service innovations with *easy of use user interfaces*, namely by prioritizing the ease of operationalizing products and allowing them to maintain the products they have purchased. The second thing is product development that prioritizes *reliability*, namely by making innovations in products / services that have the durability to be tested and have a high degree of trust in the eyes of consumers.

2.3. Innovation Systemic Small Business

Competitiveness power of small businesses often encountered problems due to economies of scale and their resources are small compared to the large companies. Compensation for these weaknesses, small businesses are

able to apply flexibility because of their simple internal organization, which allows them to respond and adapt to change (Sanchez and Marin, 2005).

This situation requires innovation that systemically can improve the competitiveness of small businesses to be more empowered, taking into account internal and external factors of small businesses. These internal considerations include work culture, organizational structure that reflects the work system, competence, management, and information and communication technology. External conditions are supplier-to-customer relationships that allow small businesses to see dimensions of linkages with distributors or how other competitors are able to see the relationship between customers

and *suppliers* . The third is the regional and national innovation system factors. The Indonesian government has programmed the SINAS (National Innovation System) program which allows collaboration with various sectors and across departments. This actually benefits small businesses, because acceleration of innovation will be more feasible (Zuhal, 2010) . The three determinants that direct organizational innovation can be more shaped by strength, or the challenges of competition.

Systemic innovation in the perspective of Johannessen (2009) supports the integration of all three factors: internal, external and regional innovation and national business objectives.

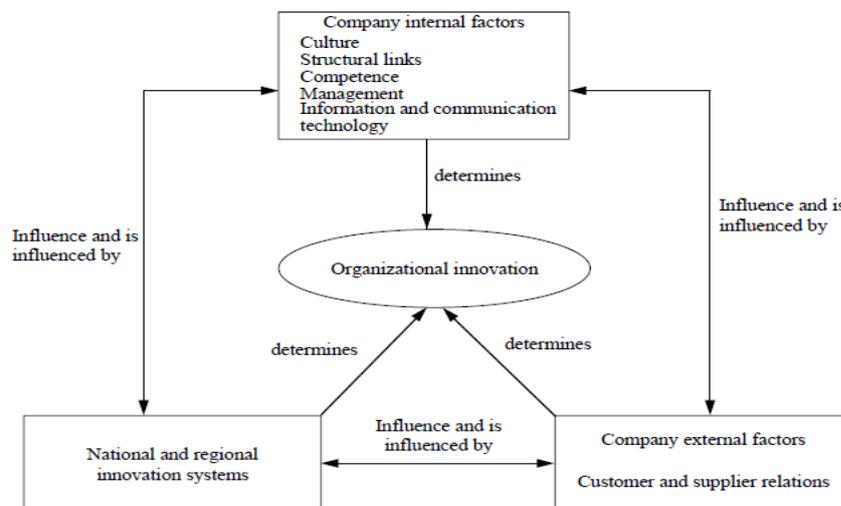


Figure 1. Systemic innovation of small businesses

Research conducted by Hitt *et al.* (2001) found that innovation and technological resources are the determining factors in increasing business competitiveness. Technological development and innovation are fundamental elements in increasing

competitiveness (Hitt, *et al.* 2001). The synergy between technology and innovation will be able to produce quality products that are market-oriented and can reduce prices (*low costs*) .

Organizational design in flexible small businesses allows small

businesses to adapt to changes in market orientation. This condition allows small businesses to compete with large businesses. Small businesses can easily adapt by responding to changes in customer desires, distribution channels, and innovation capabilities (Feigenbaum and Karnani, 1991). When compared with large businesses, small businesses are able to properly implement practical management such as promotional flexibility, for example getting a subcontract of employment, using part-time labor, and making worker regulations according to the ability of the small business (Ruigrok *et al.*, 1999)

Innovation management also allows small businesses to modify the design of their organizational structure. Camison (1997) in his research said that the right organizational structure will be able to form a work team that can exploit innovation, product development, design, *engineering*, production and marketing

Another competitive advantage of organizations is the ability of organizations to collaborate. Very few companies are able to maximize the potential of the resources they have to

do cooperation, including small businesses (Hoffman and Schlosser, 2001). The ability to collaborate is proven to improve the competitiveness of small businesses, because they are able to access large amounts of resources without having to do a merger. Small businesses only need to maintain their flexibility, which allows them to adapt to changes in the environment (Glaiser and Buckley, 1996).

2.4 . Small Business Innovation Cycle

The process of accelerating small businesses can be carried out with a continuous innovation process which is continuously proven to be able to create differentiation and low costs as a basis for competitive advantage (Ribiere and Tuggle, 2009). The term competitive advantage has traditionally been described as a factor or combination of factors that make an organization perform better than other organizations in a competition (Fahy and Chaharbangi, 1995). In accordance with this definition, better performance by an organization is caused by differences in attributes or company factors that allow the company to serve customers better than competitors do, thus creating better customer value (Ma, 1999).

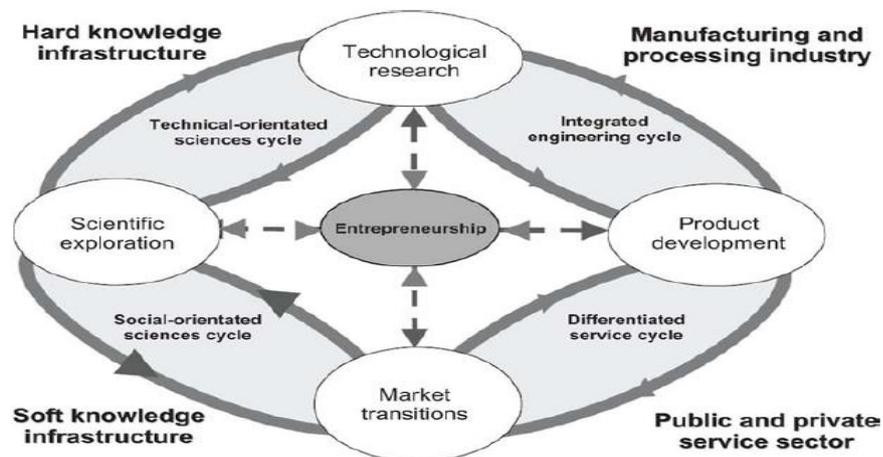


Figure 2. Siklus inovasi model (Ribiere and Tuggle, 2009)

Hitt *et al.* (2001) say that there is no competitive advantage that lasts forever. Over time, competitors will also be able to have unique resources, unique abilities and competencies that are unique to form unique ideas that are able to compete with companies. Therefore, competitive advantage can only be maintained with new basic competencies that function as competitive advantages in the future. Competitive advantage can be built with several components. Hill and Jones (1998) assert that the cost and differentiation advantages that are successfully built are based on efficiency, quality, innovation and *customer responsiveness*.

Another thing that can improve the organization's competitive advantage is innovation. Innovation is the company's ability to introduce new products and production processes to capitalize big opportunities (Ozsomer *et al.* 1997). Innovation has several roles, including renewing and enlarging the

range of products and services and related markets, creating new methods of production, supply and distribution (McAdam *et al.* 1998). A flexible organizational structure facilitates the development and implementation of new ideas, and companies that have flexibility tend to be better at innovating than companies that have a rigid organizational structure.

2. 4. Small business marketing innovation

Competitive advantage can be increased in various factors. One important factor in increasing competitiveness is by conducting marketing innovations that are the style of organizations in maximizing their intangibles and tangible assets (O'Dwyer *et al.*, 2009). The process of creativity, profitability, and customer satisfaction orientation are some considerations of marketing innovation in the context of a rapidly changing competition landscape.

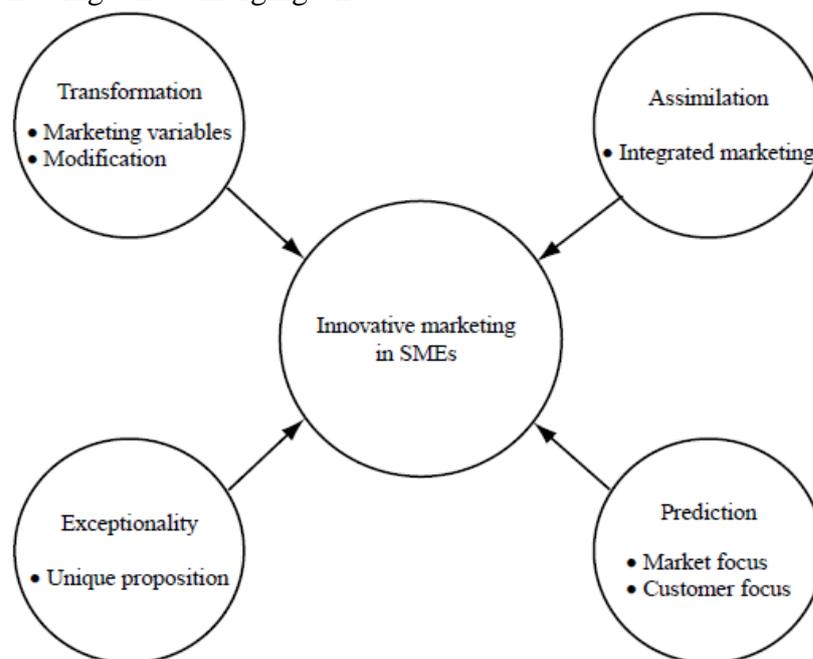


Figure 3. Concept of small business marketing innovation (O'Dwyer *et al.*, 2009)

Marketing innovation can be done by making policies that make products that have high uniqueness. The next step is the ability to predict the competition landscape by focusing more on the market and customers. Looking at the concept put forward by O'Dwyer et al. (2009) that along with unique products, which have a high level of differentiation, will directly impact the transformation process of the marketing model and the ability of organizations to implement integrated marketing.

Humphrey *et al.* (2005) asserted that innovation requires several important supporting elements so that the implementation of innovation can improve the performance of small businesses. Some of these elements are: 1) leadership, 2) empowerment, 3) work culture, 4) technology, 5) learning, 6) structure, 7) management.

Based on previous studies, it was confirmed that innovation was a fundamental strategy in increasing the competitive advantage of small businesses. The results of research by O'Dwyer et al. (2009) strengthen the urgency of marketing innovation to be very important. Researchers consider that a systemic model of innovation will be able to be carried out if it is based on a balance of the cycle of innovation, systemic innovation and marketing innovation which if implemented will be able to become the capability and accelerator of the small business innovation process.

2.5. Previous research that is relevant to this research

Research related to small businesses with specialization in small businesses that use low technology has not been widely done. Research Laforet (2009) on the low-tech small businesses to focus more on quantitative research

with the results of research that says that low-tech small businesses that successfully connecting link between market orientation with the performance of non high-tech small businesses. However, Laforet's (2009) research does not clearly examine how non-high-tech small businesses interpret the urgency of systematic innovation so that it can have implications for the competitiveness of small businesses themselves. Some previous studies of small businesses and innovations have been carried out by Humphrey *et al.* (2005), Caputo *et al.* (2002), Ozsomer *et al.* (1997), McAdam *et al.* (1998), Camison (1997), The shortcomings of previous studies were not in detail and in depth examining how to innovate systemically. This research is important to do so that non-high tech small businesses do not simply give up on the competitive environment and the development of technology that demands capital control, but they can be highly competitive even though they only have low technology in the production process.

CHAPTER III. RESEARCH METHODS

Based on the existing problems, this research will be accomplished with the qualitative method with descriptive approach. A FEW stages of research to be traversed can be described as follows:

3.1 Preparing Devices (Instruments) or Implementation Guidelines

Among other things are structured interview guides, observation guidelines, setting goals, both goals and informants. How to determine informants based on observations made by researchers in the field, so that the determination of key informants is those who are directly involved in the object of research and are able to provide objective information about facts that actually occur.

3.2 Internal Testing Instrument (in Researcher's Environment) and Instrument Improvement.

The trial of internal instruments is aimed at perfecting the research instruments that will be used in the field so that the results of this research data and information can be as expected in the purpose of this study, more focused and systematic.

3.3 Data and information collection practices

Data and information collected are:

- 1) Secondary data is taken from villages and sub-districts
- 2) Primary data is done through:
 - a) Structured interviews and *in depth interviews*
 - b) Observation (direct observation)
 - c) Dialogue with community groups or Focus Group Discuss (FGD)

3.4 Discussion of Field Findings in the Team

This discussion was conducted to see the accuracy, completeness, and accuracy of information and data. If the data is deemed incomplete, the team will carry out data retrieval to the research location

3.5 Data and Information Analysis.

3.5.1 The analysis is done by *checking* and *cross-*

checking the information received to see similarities and alignments, and also differences

3.5.2 Making a summary descriptively, by looking at the similarities and differences in opinions and views that exist in the community

3.7. Use of Research Results Data in the Field

The results of the research data will be the basis for determining how to approach, the media used, the determination of strategies, systematic patterns of finding alternative problem solving, distribution patterns and innovations carried out .

3.8. Conclusion Research results in the field

The process of making conclusions must go through the credibility of the data so that the data and information received can be tested for validity. credibility data researchers will use:

1). Data Triangulation

By triangulating the data the researcher will:

- a. Comparing between data and observations with data and interview results
- b. Compare data based on general opinion with data based on personal data.
- c. Compare what people say about the research situation to what is said all the time.
- d. Comparing a person's perspective with various opinions and views of others and comparing the results of interviews with documents.

2). Triangulation Method.

Triangulation method will be used as a researcher to check the accuracy of the data obtained from several techniques of data collection. On the other hand, it will also check the degree of trust of several data sources with the same method that the triangulation method will function as verification (verification) and validation of qualitative analysis, which in turn results in the fulfillment of qualitative research standards, namely: *trough value, applicability, Neutrality and consistency.*

3) Conclusions

Conclusion uses an inductive method from the results of research conducted to get a reliable conclusion (avoid bias).

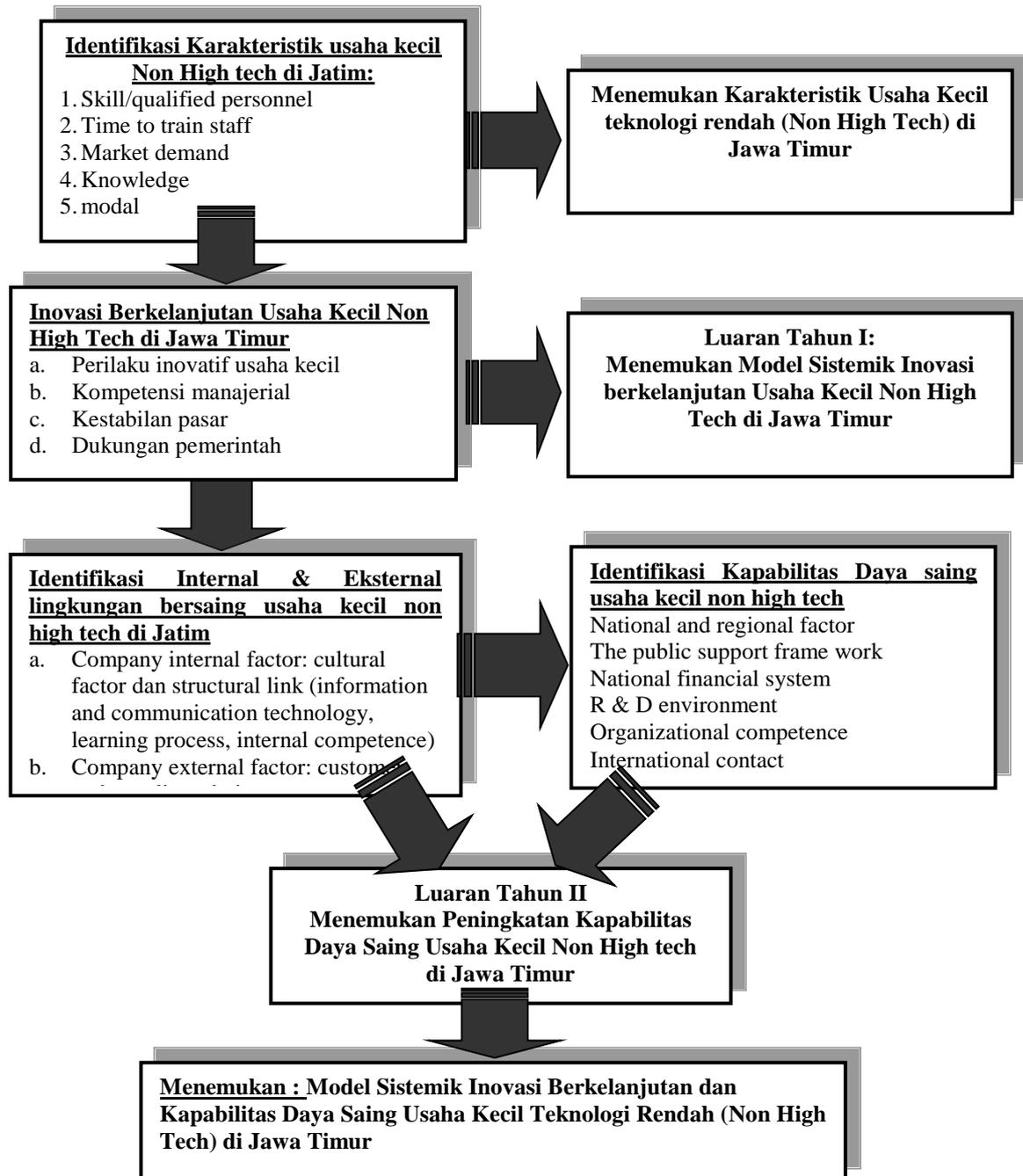
This study uses qualitative methods that will be more *indepth* in breaking down problems. This study is aimed at a) finding a systemic model of innovation by identifying the characteristics of non-high tech small businesses in East Java, b) identifying the competitiveness capabilities of non-high tech small businesses in East Java and finding increased competitiveness of non high tech small businesses. Small business data collection will be carried out with a *survey* method so that more accurate and comprehensive data can be obtained in terms of characteristics and innovation problems for small businesses in East Java.

The flow and stages of the research to be carried out can be explained as follows:

- 1) Conducting direct observation, data collection and structured interviews to identify the characteristics of non high tech small businesses, in the skill /

qualified perspective personnel, market demand, knowledge and capital. This research will also examine indefinitely the innovative behavior of low-tech small businesses, managerial competencies, market stability and government support. This is done to find a systemic model of sustainable innovation for small businesses, even though they use low technology.

- 2) Conduct in-depth interviews / *in-depth interviews* with business people who will become informants in this study. *In depth interview* is intended to find internal or external obstacles in growing innovative behavior of business people.
- 3) In the next stage this research will attempt to find a model of low-tech small business competitiveness capabilities. This research will seek to find national and regional factors that can improve competitiveness, *public support, financial systems*, organizational competencies and the environment, as well as opportunities for optimization of *development and development.*



The output of this research is to attempt to:

1. find a systemic model of sustainable innovation of low-

- tech (non high tech) small businesses in East Java
2. find the strategy was an increase in the competitiveness of small businesses capabilities are sustainable despite using low technology
 3. publish research results in accredited scientific journals (1 title), national journals (2 titles), one poster and involve 5 students in the study.

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