

## The impact of service-learning in supporting family empowerment and welfare program

Case study: packaging design class project for micro industries in *Kediri*

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### Abstract

*Background:* Facilitated by Community Outreach Centre, the Packaging Design class of Visual Communication Design major at Petra Christian University implements Service-Learning Program to assist micro-industries that have joined in the Family Empowerment and Welfare Program in Kabupaten Kediri. Students, in cooperation with lecturer assist micro-industries in solving the problems of how they market their products, due to the poor condition of packaging design. Short after finishing the Service-Learning program, we find that micro-industries undergo some difficulties in implementing student's packaging design.

*Aim:* This study investigates the impact of packaging design Service-Learning project for micro-industries in Kediri, and how much it contributes the Family Empowerment and Welfare Program.

*Sample:* Ten micro-industries are interviewed, from total population 12 manufacturers. There are totally 13 products are examined.

*Method:* A research using qualitative method to know how much impact did our Service-Learning has on supporting the program. Researchers visit every respondent's home industries and do in-depth interview in each of them.

*Result:* The examination result show that Service-Learning is utterly beneficial. However, we find some obstacles that made micro-industries are not well motivated to implement the students' packaging design.

*Conclusion:* Many of producers' expect that this program progressively persist. Family Empowerment and Welfare Center in Kediri fully nourish this Service-Learning Program. We have applied some condition to fulfill the expectation of the community and benefit all the participants of Service-Learning.

**Keywords:** Service-Learning, Family Empowerment and Welfare Program

## 支援家庭福利建設專案實習的成果 專題研究：為基甸尼小企業包裝設計課程項目

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### 摘要

**背景：**為說明在Kediri加入家庭福利建設組合的小企業，實習教學中心便利於彼得拉基督教大學視力通信設計系包裝課程去執行這項實習專案。由於包裝設計不合格，老師與大學生就幫小企業解決銷售他們的產品的問題。實行這項實習研究後，研究者發現當小企業執行大學生做好的包裝設計時遇到一些困難。

**目的：**為研究在Kediri 小企業實習學生所做的包裝設計的成果與這種對家庭福利建設設計的支持有多大。

**研究方法：**為瞭解實習工作支持這項計畫的程度有多大，這項研究使用定性研究方法。研究者採訪每個受訪者的家庭工業以及進行仔細的訪問。

**研究結果：**指出實習活動非常有效，但是還發現一些障礙引起不能推動小企業來執行大學生所做的包裝設計。

**總結：**許多小企業希望繼續實行這種項目。家庭福利建設局非常支援這種實習項目。研究者已應用一些方法使這次實習能滿足社會的需求與獲得他們的支持。

**關鍵字：**實習 家庭福利建設項目

## 1. Introduction

The education of Art and Design Faculty emphasizes in development of creativity, basic techniques and the implementation of knowledge academy. The development of creativity is important in design major, accomplished with basic technique, students become well prepared. In order to gain practical knowledge and experience, students must implement their knowledge academy. As educator, Visual Communication Design lecturers realize to accomplish those development they must expand their knowledge. The fact is quality and quantity development of Visual Communication Design lecturer is not enough if it's only based on theory and personal experience. Having considered that, Packaging Design lecturer's has initiative to implement Service-Learning as a part of social commitment, so the result of packaging design can be used directly in the market. Service-Learning is essential not only for students and societies but also lecturers in order to update their knowledge, to experience the learning process, and know the real problem.

The teaching should represent all levels of the activities that are emotional and rational, the communication, the technology, and the awareness of the social context (Frascara, 1995). Higher education does not only develop knowledge and trains young minds, but disseminates and applies such knowledge as well (Rao, 2003). No school could attempt to deal with all design requirements in every area of professional practice. Design studies is emerging today for the same reason that the design profession is experiencing a resurgence: immediate problems of integrating design into industry and long term cultural questions about the role of design in the modern

world and its potential for contributing to human experience (Buchanan, 1995).

Local, national, and international problems have an impact on colleges and universities, and educators are acknowledging and accepting the responsibilities they have for leadership in the society. Among the specific issues for which college and university leaders are assuming their share of responsibility and that they declare are reasons for engaging their students and faculty in programs linking service and learning are: education reform, the development of human values, leadership, citizenship, cross cultural communication, theory and practice, institutional mission, student interest and demand (Berry, 1999). Beyond its traditional functions of teaching, training, research and study, all of which remain fundamental, we should made a point of asserting the importance of the educational mission of higher education, which consists in promoting development of the whole person and training responsible, informed citizens, committed to working for a better society in the future. Higher education also has contribution to make to the solution of the major problems of planetary, regional and local importance (Mayor, 2003).

## 2. The Study

### 2.1. Background of Study

The academic has a big responsibility for the welfare of the society and awareness of the social context, the integration should be made between academic and industry. As colleges and universities seek to link community service to their educational mission, they realize that they must design those links to be compatible with their national and institutional

cultural context. To be successful they cannot merely replicate the models in use at other institutions. The immediate issues of their communities- the geography, history, mores, and values must all be part of the way service learning is organized. (Berry, 1999). Each higher education institution must define its mission in harmony with the overall goals of the sector itself, translate this mission into observable indicators and allocate the required resources (Rao, 2003).

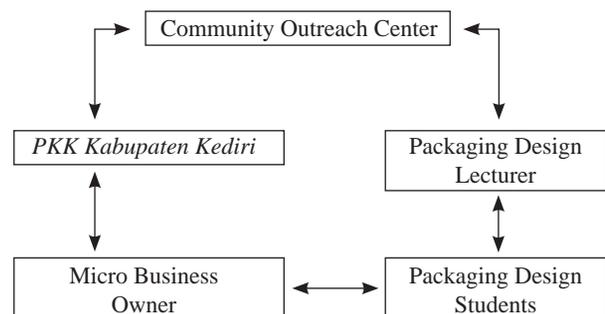
Visual Communication Design has conducted the fourth times Service-Learning Program. In 2006, we assisted the micro-industries in *Surabaya* and *Sidoarjo*. It was our first experience in conducting Service-Learning. Even though the aim of Service-Learning was to help micro industry, our students encountered difficulties to approach them and obtain their product information for re-designing their packaging. We comprehended that though this is a social work, trust is required. From 2007 until now, facilitated by Community Outreach Centre, the Packaging Design class of Visual Communication Design major at Petra Christian University implemented Service-Learning to assist micro-industries that organized by the Family Empowerment and Welfare Executive Committee in *Kediri* district (*PKK Kabupaten Kediri*).

In the Service-Learning process, students in cooperation with lecturer and tutors' assist micro-industries in solving the problems of how they market their products, due to poor condition of packaging designs. Short after finishing the Service-Learning program, we find out that micro-industries undergo some difficulties in implementing student's packaging design. After three times conducting this project, we carried out a research using qualitative method in order to know whether our Service-Learning is

influentially supported the program. Generally, the aim of this study is to observe the advantages and the problems in order to obtain the description of suitable Service-Learning implementation. The primary concern in this project is how to make a suitable design based on the theory in a limited budget. The packaging design that made must be able to be re-printed by micro-industries manufacturer. It is a big challenge for every designer to create a suitable design with a limited budget.

## 2.2. Participants

There are two major participants in this program, which are micro-industries manufacturer from *PKK Kabupaten Kediri* and Visual Communication Design students from Petra Christian University, *Surabaya*. Packaging design lecturer supports this program and community outreach center as the fasilitator between *PKK* and university. As Service-Learning research has developed, more experts are arguing that Service-Learning activities should be integrated into course objectives (Howard 1998; Weigert 1998; Eylar & Giles 1999).



**Figure 1. The Link in Service-Learning Program**

Since 2006, this class has been implemented Service-Learning, all the students projects were actual project that hopefully could be used to assist micro industry. In 2007, there are totally 15 packaging, designed by 30 students and assisted by four tutors. In 2008, there are totally 34 packaging designed by 34 students and assisted by three tutors and continue in 2009 the participants are 31 students. Totally, from 2006 we produced four packaging designs for *Surabaya* and *Sidoarjo* and 80 packaging designs for micro industries in *Kediri*. There was increasing number of micro industries that eagerly motivated to join this Service-Learning Program. Micro industries have realized the importance of packaging design.

### 2.2.1. Packaging Design Class

Packaging design class is an elective class. Before beginning of the semester, the packaging design's lecturer have presented the curriculum of the class so that the students realize that Service-Learning is integrated into the course. The aims of packaging design class are introducing and understanding the packaging design and kinds of elements needed in designing the packaging so they can perform the effective plan using the modern equipments. The class curriculum is developing the early knowledge about packaging and the development, introducing and understanding the impact of packaging design in marketing and some factors supporting packaging design (Jurusan Deskomvis, 2006). The package is a marketing and communication tool, a permanent omnipresent medium that acts as a salesman. (Japan, 1995). The most basic function of packaging is to preserve and protect the product and its contents throughout its distribution and sale but in a changing society, packaging is increasingly called upon to

fill a more complex role. In today's self service environment, packaging has to sell the goods and its contents. (Sonsino, 1990). Packaging has become one of the most exciting and challenging areas in the design world, with the fast moving pace of development in both graphic design and material technology, which is continually creating new possibilities in shape design- the use of color, texture, typography, images or graphic, cost, structure and logos- remains at the heart of design profession (Sonsino, 1990; Denison, 1999).

### 2.2.2. Family Empowerment and Welfare Program

In Indonesia, we have the similar Family Empowerment and Welfare Program in all areas. Each district must put this program into success. There are ten programs of Family Empowerment and Welfare, which are:

1. Total Comprehension And Implementation Of Pancasila As The States fundament (Penghayatan dan Pengamalan Pancasila)
2. Mutual Assistance Among Others (Gotong-Royong)
3. Foodstuff (Pangan)
4. Clothing (Sandang)
5. Housing And The Quality Of House Hold Arrangement (Perumahan dan Tata Laksana Rumah Tangga)
6. Skills Education (Pendidikan Keterampilan)
7. Health (Kesehatan)
8. The Development Of Economic Enterprise (Mengembangkan Kehidupan Berkoperasi)
9. Environment Preservation (Kelestarian Lingkungan Hidup)
10. Health Plan (Perencanaan Sehat)

Our Service-Learning Program supports the

skill education of micro industry as stated in program number six.

### 2.3. Research Questions

The research questions are as follows:

1. Micro industries condition
  - Sustainability of the products
  - The quantity of the products
  - The number of effective Human Resources
  - Products' segmentation
2. The implementation
  - The implementation of students' design
  - The obstacles
  - The solution
3. The Impact
  - The impact of Service-Learning in products' quality and quantity
  - The impact of Service-Learning in supporting Family and Welfare Program
  - Product's quality improvement
  - Suggestion

### 2.4. Research Methodology

A number of studies have been conducted in order to review the evaluation process of Service-Learning programs, which include interviews (with protocols), journals, syllabus analysis, surveys, classroom observation, and focus groups. Interviews and focus groups are becoming more common for identifying outcomes (Kezar, 2002). In this research we perform open interviewed, it means the informing person knew the aim of interview and realized that they have been interviewed (Singarimbun, 2006).

Service-Learning is a complex process that involves students, faculty, the university and the

community, but this research is focusing on the micro-industries that experience this program and received student's packaging design. At the beginning of Service-Learning process in 2007, there was a plan to design 30 packaging, but until the due date there were only 15 packaging. Total of ten micro-industries manufacturer is interviewed from total 12 micro-industries. There are 13 packaging design examined. The date of each micro industry is collected from *PKK Kabupaten Kediri* Executive Committee and students' reflection report. That sample is considerably enough, it represents more than 60% of total population.

The survey is conducted by visiting each of manufacturers' home industry of snack and instant beverage who has received the packaging design. In this research we collect the primary data directly from respondent and the secondary data from other parties. To collect the primary data, this research use in-depth interview technique. While we are interviewing each manufacturer, we implement another technique to strengthen the analysis, such as:

1. Observation

This technique is used to support the primary data and sharpen the analysis by observing directly the home industrial activities, collecting some design samples and visit some retails to know the products' market.

2. Documentation

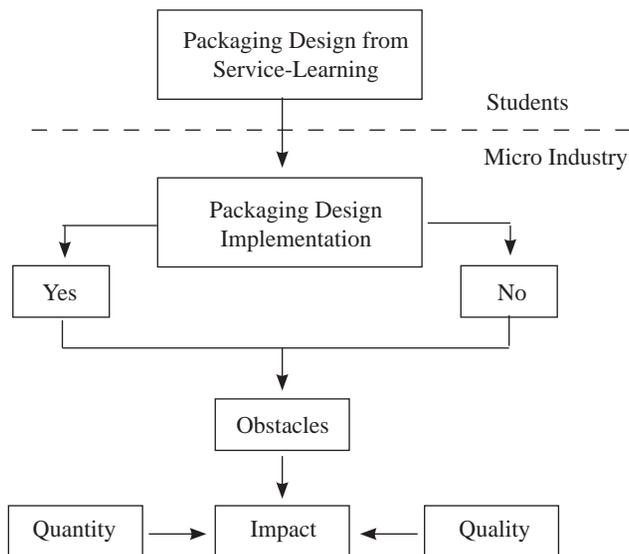
In this research the methods of data collection are namely: filling questioner list, writing notes, recording the interviewing process through video, sound recording and photography.

These collections of interview questions will be analyzed with qualitative method. Based on the data, we find out that there is a certain character

of micro-industries in implementing the students' packaging design, so we analyze the type the micro-industries by grouping them. Qualitative research is, therefore, not based upon a fixed set of rigid procedures, but nevertheless the researcher does need to develop a set of strategies and tactics in order to organize, manage and evaluate. Such strategies involve the researcher in considering how to plan, organize, collect and analyze data. (Burgess, 1985).

### 2.5. Research Conceptual Plan

This research will discover weather the students' packaging designs have been made into implementation, whether or not useful for society, including the obstacles and the impact of Service-Learning.



**Figure 2. Research Conceptual Plan**

### 3. Service-Learning Process

There were five important stages in this process. First, students must decide the product then accomplish the observation and research before making the design. For the first program, the focus of design was for snacks and instant beverage product. Students must design at least one until as many as they could. They also must design two or more innovative packaging to be used by producers in the future if they have progressive production. Most of the students design the primary packaging. Essentially, there are two types of packaging: either 'primary' or 'secondary'. The primary packaging is that which immediately covers a product; the secondary package contains the many individual primary units, usually for transportation purposes. The primary package has the most important task in the area of product or brand identity. It will contain all relevant or necessary information regarding the product. It will be a standardized size and dimension, so that it fits standardized shelf layout and transportation containers. It will bear a strong graphic identity and product imagery (Denison, 1999). Second, students must have presentation in front of the lecturer and tutors to gain input. Students must meet the micro-industries manufacturer and have presentation for one day in *Kediri*. After presenting their design, they must have discussion to know what kind of design that more actually needed by micro-industry owners. When designing a package, no single package is necessarily right or wrong but one might be considerably more appropriate than another (Denison, 1999). The result of the meeting would become great consideration for design revision. The fact was there were many design revisions because there were different kinds of views and tastes between students and micro-industry manufacturers,

like: material, size, shape and especially color. The micro-industry manufacturers usually wanted the eye-catching design with the contrast color in the lowest budget. Students considered the elegant, beautiful and innovative design without considering the industry owner's budget. Students thought that the colorful design would underestimate the design, made the design look cheap. Sometimes students would have argument about their design but finally they would listen to the micro-industry manufacturer. In the first meeting, students learned to interact with clients and real projects. The students experienced the new ways of education that make them have different points of views and life circumstances. Besides, of the different ethnic, education and economic, background, students and producers must work very hard to eliminate the gap between them. Different language use between Javanese as the vernacular language and Indonesian language also become a small problem in communication but they tried hard to find the perfect solution. Hammond and Heredia (2002) showed that participation in Service-Learning helped individuals to become better "cultural brokers." Service-Learning was also found to have different meanings and challenges based on the racial or ethnic background of participants. Vang (2004–2005) found that Service-Learning is an unfamiliar concept in many cultures and that service activities need to be culturally sensitive.

After discussion process, the design must be revised and approved by their client and tutor. Because the distance was too far between *Surabaya* and *Kediri*, students and their clients should communicate progressively via cell phone or short message service (SMS). Students spent more budgets due to distance process. The approved design must be printed on 50 – 100 packages; it depended on the price of packaging and the students' budgets because

they paid for the printing. Almost all the students design implemented silk screening printing. The decision of using that printing technique was mainly because it was cheaper than offset printing. Few of them used digital printing due to the limited time.

The third process was packaging the product in the newly designed packaging. Students together with the micro-business manufacturer package the product in the new packaging. The activities included putting the product into the new packaging, weighing and sealing. Some of the product didn't have to be weighed because they have already been taken into the inner package. After finishing packaging the product, students must carry the product to *Surabaya* and reserved it for exhibition and sales. Some of the product that was not long lasting was sent later near to the exhibition date.

The fourth process was exhibiting and selling the product with new packaging in one day. The exhibition was held two weeks later because students must make point of purchase design and two other samples for innovative design. The purpose of exhibition and sales were for:

1. Grading consideration. There was a good design but when it was filled with the product, the design was not eye-catching and marketable and vice versa.
2. Grading the point of purchase design that was designed for exhibition and sales. It was not possible just borrowing the product and giving it back after that because some product would be expired. The selling purpose was also as our gratitude towards the micro industry owners and Family Empowerment and Welfare Center in *Kediri*.
3. The importance of students' experience. They used to believe that school was the only source of learning but through

this process they could learn from their experience.

Kirkham (2001) reported that nearly all of the teachers who connected Service-Learning to their curriculum reported that students who participated in Service-Learning mastered more knowledge and skills than they would have learned through regular instruction, and that their grades improved and absenteeism decreased.

The exhibition and sales were held only in six hours. Most of the products were sold out, and some points of purchase stands were donated.



**Figure 3. Service-Learning Process from Presentation until Exhibition**

A last stage was reflection. Reflective thinking requires the teacher to constantly examine his or her aims, beliefs, assumption and actions (Dewey, 1933; Schon, 1983) and to modify his or her skills in response to the students' needs (Darling-Hammond, 2000). Cress et al (2005) defined Service-Learning is truly a different way of learning...(for) the focus is places upon connecting course content with actual experience...learning through reflection on experience is at the center of Service-Learning courses. At the end of the semester, students must make a reflection paper for the whole process of Service-Learning. The reflection was very important as a report to evaluate and improve on the next

Service-Learning program. Most of the students give positive comment to this program like: it's different with other major, give them so much experiences, students become closer with their friends, tutor and lecturer and this program also encourage them to deal with real client who had different social, economic and education background. The major problem was when few of them couldn't meet the agreement with client regarding to design and budget.

Eyler and Giles (1999) found that reflection activities helped students apply learning to real-life situations and acquire stronger problem-solving skills. Engaging in reflection also was related to increased openness to new ideas, the ability to see issues in a new way, and the ability to analyze issues systemically. Shumer (1997) summarized the research on Service-Learning and concluded that reflection and feedback were necessary for helping Service-Learning practitioners to monitor the flow and direction of practice to ensure that goals were met.

After doing all the Service-Learning activity, we found the urgent need to do research to community. Based on some reports, some producers have used the students' packaging design. They also re-printed the packaging. In some case some students reports that their micro-industries appear didn't well motivated to implement their design. Two months after Service Learning activity, we had information that one of the micro-industry manufacturers tried to market her product with new design in *Simpang Gumul* exhibition place at *Kediri*. All products were sold out quickly, even though she raised the price. Her packaging design also got attention from *Kabupaten Kediri* and also *Kabupaten Ponorogo* local government. Both of them were willing to have cooperation with packaging design class at Petra Christian University.

## Results

From our research, we found that there were five types of responses to students' packaging design from the micro-industry manufacturer. First, there was micro-industry manufacturer who were very enthusiastic implementing the student's packaging design, she reprinted the design, made the design variation similar with the new design but implemented in a different material, like: plastic, jar and mica. She also joined some exhibition and competition. This product was carang mas crackers (Figure 4).



**Figure 4. The Development of Student's Packaging Design by Manufacturer**

Second, manufacturers reprinted the design given by students. The products that used students' packaging designs were Wilis crackers (rempeyek Wilis), gambir crackers (semprong or krupuk gambir), Kalika tomato candy (permen tomat Kalika),

Baroni peanut (molen kacang Baroni). Third, some of the manufacturers didn't want to use the new design but they were motivated to redesign their packaging with their own design that according to their opinion was cheaper and same as interesting as student's design. The products in these categories were: banana crackers (kripik pisang), Raja Nangka banana snack (gethuk pisang Raja Nangka) and Zeinza bon-bon (kembang gula Zeinza). Fourth, we found some facts that some of manufacturers didn't response the new design with many reasons, but they still used the new design given by students for market testing. Fifth, in the interviewing process we found that manufacturers kept the student's design, they didn't use it because they didn't want to reprint. They also didn't use the new design for market testing. They said if they used the packaging in a little amount of product, consumer would be confused.

What made we proud, there were two producers who won the competition. Kalika tomato candy has joined the National product competition. That product got third runner up in province best product competition. Mrs. Sumini, the manufacturer said that students' design gave many contributions in her winning. There were also two products belong to Mrs. Sunarti, which were carang mas and gambir crackers won the second prize winner of best product and second place in food stuff category in 2007.

**Tabel 1. Data and Type's of Micro-Industries in Kabupaten Kediri**

No	PRODUCT	MICRO-INDUSTRIES LOCATION	TYPE'S OF MICRO-INDUSTRIES					REMARKS
			1	2	3	4	5	
1.	Carang Mas WILIS	Mrs. Sunarti WILIS Home Industry	V					
2.	Rempeyek Udang Kacang WILIS	Mrs. Sunarti WILIS Home Industry Dsa. Temboro 125, Ds. Plaosan,.		V				2 <sup>nd</sup> price winner of best product & food stuff.
3.	Semprong (Krupuk Gambir)	Mrs. Sunarti WILIS Home Industry Dsa. Temboro 125, Ds. Plaosan.		V				2 <sup>nd</sup> price winner of best product & food stuff.
4.	Permen Tomat KALIKA	Mrs. Umar PBHFK CEMPAKA II Dsn. Tegalsari, Desa Tulungrejo		V				3 <sup>rd</sup> runner up in province best product.
5.	Molen Kacang BARONI	UD Baroni Langgeng Kediri- Jatim.		V				
6.	Kripik Pisang RAJA NANGKA	Mrs. Napsiyah & Ms. Umi Ds. Petok- Mojo- Kediri			V			
7.	Getuk Pisang RAJA NANGKA	Ms. Umi Kulsum Desa Petok- Mojo, Kediri, Jatim			V			
8.	Kembang Gula ZEINSA	Atmojo, Kediri, Jatim.			V			
9.	Sambel Pecel PUTRI DAMAYANTI	Mekar Sari Kediri				V		
10.	Kembang Gula BAROKAH	Bu Sutini Ds. Gondang, Plosoklaten Kediri.				V		
11.	Kripik Bayam KRIYUK	Mrs. Hartyani Dsn. Muning RT 03 RW 04				V		
12.	Jahe Instan ARROMA	Mrs. Hartyani Dsn. Muning RT 03 RW 04					V	
13.	Jahe Merah GUNUNG WILIS	Industri Jamu PARANG HUSADA,					V	
14.	Kripik GOTHE AYU	Mrs. Titiek & Mrs. Suzana PKK Desa Kandangan						Not interviewed
15.	Bidaran IKAN BENDERA	Mrs. Arik Hardiani J.M Food, Kediri						Not interviewed

## 5. Discussion

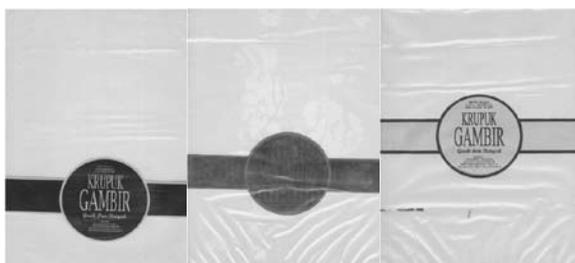
### 5.1. The Implementation and Its Obstacles

We expected that micro-industries applied the students' design, but in the implementation we found two major obstacles from producers and design. Some of the producers said they got a beautiful design but not compatible with their financial condition.

Some of them have implemented the new packaging but unfortunately they faced difficult to market the product. The product without packaging was cheaper and most customers didn't consider design as an important factor. Some of manufacturers used the new packaging but there wasn't any significant sales improvement, that's because with the new packaging the must raise the price. Based on survey, we found one manufacturer said that the design was good but

the size is too big for his ginger instant beverage. These days, consumer wanted the practical ways of serving. The packaging trend for instant beverage was sachet. Mr. Suparno didn't want to use the student's packaging because he was afraid his product wasn't marketable because of the low consumer buying capacity. The worst fact we found was some of producers were not motivated and pessimistic because they were not to sure that the new design could increase their product selling.

For the design, some manufacturers said that students' design was unrealistic. The material was too expensive and they couldn't find in local market. Students implemented more than two colors, so it was expensive and impractical. They were only able to use one or two colors in average. In the re-printing process, some producers said that it was hard to find the similar quality like student's design because she couldn't find the qualified printing service in *Kediri* (Figure 5).



**Figure 5. Inconsistence Re-printing Packaging Design**

### 5.2. The Impact of Service-Learning

We divided the impact by two categories, quality and quantity impact. After getting the new design, micro-industry said that they were more motivated to develop their product quality than

before. Most of them said that they have given attention in their product quality in the first time, like they used certain brand of fried oil, they used drying machine to dry the crackers, so they said that they didn't need to improve their quality. To gain the quality improvement they wanted to eliminate the oil permeation that wasn't well seen and unhealthy. With the existence of new design, producers wanted to develop the quantity and increased the product market. However, without new packaging design they wanted to develop their market. Ironically, the quantity development problems were most because of human resources and fund.

For Family Empowerment and Welfare Program, this Service-Learning motivated them to develop their products' quality and quantity. They were motivated to support micro-industries by facilitating them comprehensive training to get product registration number, capital loan program and permanent showroom establishment.

### 5.3. The Micro-Industry Expectation

Generally, manufacturers wanted to get funding to develop their micro-industries, for examples getting capital funding or equipment like spinner. The micro-industry manufacturers needed help to market and distribute their product. Some of them wanted to ask for product registration number.

The manufacturers expected the formal and informal cooperation especially with local government and also Petra Christian University. They really hope that they could sell the product in a special place provided by local government. Actually, there was a temporary showroom provided by local government, but many producers didn't know about it because there was not enough publication. They also

expected that their products could be well known as *Kediri* special products.

For design, they wanted a simple and practical design. The packaging price is the main factor to get a decision whether they used the new design or not. They looked for the cheaper printing factory with a better quality in *Kediri*. The micro-industry manufacturers who implemented a new design and got the benefit, they asked for another design for their product variation.

## 6. Conclusion and Recommendation

Generally, the micro-industry manufacturers who used the packaging design made by students felt the new packaging was very useful. The new design could boost up their product sales and directly increasing their income. The area of product market was also more developing than before, even though they still can not sell in big retail. With the new design, some of them joined the product competition and exhibition in their district or province. Two of them have won the competition.

Based on interview, we defined five types responses from the producers. First, there was manufacturer who was very enthusiastic in implementing the student's packaging design, making design variation, experimenting the color and materials. Second, there were manufacturers who implemented the student's packaging design. Third, the manufacturers who didn't want to use the new design but they were motivated to redesign their packaging with their own design. Fourth, the manufacturers who didn't respond the new design, but still using it for market testing. Fifth, the manufacturers who just stored the students' design. From 15 products, there were five products

implementing the students' packaging design. During observation, we was hardly locate the respondents' product, it's because most of them sold their product in small retail; they made their product based on order and exhibition or competition only.

The reason of using the packaging design from Petra's students were mostly because they like the new design, reasonable price and they were motivated and optimistic if they use a new design their product would be wider market and more well-sold out, like: in Supermarket and famous store. There were two main reasons producers didn't use the students' packaging design, which were:

### 1. Internal factors

Internal factors were related to the ability of producers to reprint the packaging, which were including: the financial ability, limitation of human resources and mainly because no enthusiasm.

### 2. External factors

The expensive material and cost of printing made the producers didn't want to use the new design. Some of the producers said that the new design couldn't fulfill the consumers' need, especially from the packaging size.

Just few of them said that they didn't like the new design.

In this Service-Learning process, there were psychological obstacles between producers and students when they had interaction and discussion. They didn't have the agreement as their hope. In the producers' point of view, they felt reluctant to criticize or discuss about their design taste and local consumers' need. Producers feel "pity" if they had to reject or revise the students' design. Meanwhile, students were not intensive to explore the hope and need of producers because they were worried to

burden the producers. In the mean time, we haven't seen the impact of Service-Learning to producers' life quality in generally. It might be because the research conducted only one year after the program. Specifically, for manufacturers who implemented the new packaging design said that they had a quality life improvement. Family Empowerment and Welfare Program committee said that Service-Learning was very beneficiate for micro-industry and supporting their program in developing skill education for the micro-industry welfare. They were motivated to support micro- industries by facilitating some workshops for micro industries, the product registration process, capital loan program and permanent showroom establishment. Wade (1997) showed that strong Service-Learning partnerships yielded strong outcomes for teachers, youth, and community members in the form of skill and resource acquisition, meeting genuine community needs, and widening partners' understanding of each other and community issues.

Based on this research, we recommend this program progressively persist. Family Empowerment and Welfare Center in *Kediri* fully supported this Service-Learning program. For better implementation, we have applied some condition for all the Service-Learning participants. The packaging design class would have selection to students who join this Service-Learning class and they must give complete data of producers in reflection paper. For micro-industry, we applied some condition to get the eligible manufacturers, like: their products must in appropriate condition, the manufacturers must be selected by Family Empowerment and Welfare Program committee in *Kediri* and they must register their product to Health Department before submit their product to be designed. Hopefully, the product

quality could be appropriate in the new package. Based on our experiences, the level of motivation and ability of manufacturers that registered their product would be higher than those who didn't. Students and micro-industries need social interaction mechanism in interesting and participating ways, so there will be balance and compatibility both between input that students receive and output that manufacturers got in a form of packaging design.

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