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**Improving Labor Skills of the Traditional Craft
Villages in the Red River Delta of Viet Nam:
The Case of Son Dong Art Village**

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The findings and the opinions expressed in this academic research paper are of the authors in their personal capacity and not those of the institutions they are attached with.

Abbreviations

Dong	D
General Statistical Office	GSO
International Labor Organization	ILO
Japan International Cooperation Agency	JICA
Ministry of Industry and Trade	MOIT
non-governmental organizations	NGOs
Red River Delta	RRD
traditional apprenticeship training	TAT
Viet Nam Bank for Agriculture and Rural Development	VBARD
Viet Nam Household Living Standard Survey	VHLSS
Viet Nam Traditional Craft Association	VICRAFTS

Abstract

Traditional craft villages hold a crucial role for job creation and poverty reduction in the local communities of Viet Nam. These villages are also symbolically and culturally important in the process of urbanization and industrialization.

Our research explores the labor issues and examines the factors, especially informal and formal training, that affect skills and incomes of labor in the craft villages, using the case study of Son Dong Art Village in the Red River Delta.

The survey shows that having attended in formal skill training does help to increase neither incomes nor skills of workers while being transferred skills by their relatives or family members has a strong effect on the income levels of workers. There is a redundancy between formal training and informal training which is provided in the production premise because both kinds of training target the similar skills which are popular among labors.

The training strategy must be changed by allowing for greater flexibility. There is a need to create more forms of mixed training in the local communities. Among local organizations, craft village association should play more active role.

1. Introduction

Traditional craft villages hold an important role for job creation, poverty reduction and tradition preservation for local communities in many developing countries (Humphrey and Schmitz, 1996; Hayami, 1998; and Otsuka, Estudillo, and Sawada, 2009).

There are currently more than 2,000 traditional craft villages in Viet Nam and the majority of them are located in the Red River Delta (RRD). They make various traditional handicrafts such as silk, bamboo, ceramic, rattan, wooden interior design, etc. Many villages are now seeking to apply modern technology to produce products of higher quality for export.

The traditional craft villages in the RRD create millions of jobs, provide income compensated to the agricultural production, and contribute to poverty alleviation for the local communities (JICA, 2004). Since the beginning of the reform period, they have served as a link from the rural economy to the urban economy, and even to the international market. These villages are also symbolically and culturally important in the process of urbanization and industrialization which come along with the establishment of the industrial zones and the flows of migrants from the countryside to the city.

Most production units of the traditional craft villages can be qualified as in the informal economic sector because they are unregistered small and even micro businesses, including household business and self-employment.¹ A significant part of them is connected to the formal sector (e.g. registered larger enterprises) through subcontracting arrangements. Their businesses have many characteristics found in the description of the informal sector by the International Labor Organization (1972: 6), for example, ease of entry, reliance on indigenous resources, family ownership of enterprises, small scale of operation, labor-intensive and adapted technology, skills acquired outside the formal school system; and unregulated and competitive markets.

It has been widely acknowledged that, skill improvement is a prerequisite for the informal production units in the traditional craft villages, not only to break out of low incomes and poverty trap, but also to be able to face with increasing competition in the market (Afenyadu et al, 2001; Bennell, 1999; Hann, 2001; ILO, 1972; 1998; WB, 2001). Although there has not been available statistics about the share of skilled workers in the total workforce of the traditional craft villages, such figure is estimated to be small. This preliminary conclusion is drawn from the wider context of Viet Nam's labor market where there is a particular concern over low level of technical

¹ In evaluating the informal/formal classification of economic activities, classificatory schemes can be considered arbitrary, subjective, inflexible, and narrowly defined for a specific purpose

attainment of the total workforce.² Although it was ranked the second highest among the regions of the country, the share of trained labor in the total workforce of the RRD was merely 34.4% in 2005. It is estimated that the share of trained workers in the total workforce of Viet Nam was around 30% in 2010 (GSO, 2010).

Training is crucial in the transfer and development of skills (Fluitman, 1989; Grierson and McKenzie, 1996; ILO, 1998; King, 1989; McGrath and King, 1995). Skill training of labor can be conducted in formal way via vocational schooling, and in informal ways via traditional apprenticeship training (TAT).³ In the informal sector, TAT is generally recognized to be relevant, and effective but far from perfect (Hann, 2001: 21). For instance, it can be effective when the masters and students have family ties, and limited resources; or it can be the fastest way to equip new workers with necessary skills in simple, manual jobs. Nevertheless, compared to formal vocational schooling, lack of clear contracts and relevant monitoring in TAT can lead to huge variation of training quality, and in some cases, exploitation of apprentices by unscrupulous employers. Furthermore, TAT is not exposed to modern training approaches, and the learning can be less innovative and efficient (Hann, 2001: 21).

In the traditional craft village of the RRD, the application of two forms of training depends on the type of production. In many cases, there is a supplementation between formal and informal training in the employment of the villages, and this significantly contributes to skill improvement of a large pool of the workforce. However, in the fields that require protection of secret know-how to remain competitive, TAT within the family ties is more popular. In general, TAT is often seen as a popular form of training either for high-skill or very low- or simple-skill jobs, whereas formal vocational schooling is often seen as a popular form of training for medium-skill jobs in the traditional craft villages of the RRD. This implies a need to rebalance and upgrade the existing traditional apprenticeship and formal vocational schooling system for skill improvement.

Our research explores the labor issues and examines the factors, especially informal and formal training, that affect skills and incomes of labor in the traditional craft villages in the RRD. It provides policy recommendations to upgrade the existing skill training system in Viet Nam to meet the demand of the workforce in the traditional craft villages.

² For example, in 2004, only 20% of the total workforce already attended some kind of technical school, and 75% are unskilled (TVET, 2008: 2)

³ Apprenticeship training refers to a written or oral agreement between a ‘master’ and the apprentice for a period of attachment to the firm of the mastercrafts with the purpose of acquiring a set of relevant and practical skills (Hann, 2001: 20)

It seeks to answer the following research questions:

- ❖ *What are the factors that affect skills and incomes of labor in the craft villages of the Red River Delta? And,*
- ❖ *How do informal and formal training contribute to the improvement of labor skills in the craft villages of the Red River Delta?*

2. Labor Issues in Traditional Craft Villages of the Red River Delta

Overview of the Red River Delta

The RRD is composed of 11 provinces and cities, namely Ha Noi, Hai Phong, Hai Duong, Bac Ninh, Vinh Phuc, Hung Yen, Thai Binh, Nam Dinh, Ha Nam, Ninh Binh and Quang Ninh, occupying 14,862.00 square kilometers (km²), equivalent to 4.50% of the total area of Viet Nam. It is one of the most active economic regions of Viet Nam, with annual average growth rate reaching 7.30% during the 2001-2008 period. In 2008, the gross domestic product (GDP) of the RRD was \$20.20 billion (22.60% of total GDP of Viet Nam), and ranked the second biggest among other economic regions. The GDP per capita of the RRD was \$1.025. The service, industrial and agricultural sectors account for 41.00%, 39.00% and 20.00% of the GDP respectively.

In 2008, the RRD total population were 19.60 millions (22.80% of the total population of Viet Nam), including 10.70 million active labors of which 85.00% were aged from 15.00 to 44.00 (MPI, 2010). Despite high economic growth, the RRD is now under strained pressure of unemployment. Rapid urbanization has reduced the arable land, forcing millions of agricultural workers out of farming jobs. At the same time, low-skill young people in the rural areas are not qualified for new jobs in the manufacturing and service sectors. Calculation from Viet Nam Household Living Standard Survey 2008 (VHLSS 2008) show that, in 2008, only 27.00% of the labor force in the RRD work in the formal sector, and the rest are in the informal sector. Around 53.00% of the labor force are working in the low-skill jobs as simple construction workers, street vendors, porters, motorcycle taxi drivers, hired street labor etc...in the major cities (Authors, 2011). Around 62.00% of the total labor force only attained high school or less than high school education (Table 1). Job opportunities in the traditional craft village thus become important sources of employment in the rural areas of the RRD.

Table 1: Educational Level in the Red River Delta

Educational Level	Percent
Primary School	3.17
Secondary School	13.87
High School	45.14
Vocational Training School	15.74
University and College	14.38
Post graduate level	7.70
Total	100.00

Source: Calculation by authors from VHLSS 2008.

The Traditional Craft Villages

In the Northern part of Viet Nam, most traditional craft villages are located in the RRD, especially along the Red river banks.⁴ Many of them are more than 300 year old. For hundreds of years, when the road system had not been developed, the Red River was a vital route for the villagers to transport their products for trading. Those villages made an important part of the supply chain to the Old Capital City of Thang Long (old Ha Noi). The old Thang Long had 36 streets. Each street was known and named by its particular trading product and famous profession, many of which were originated from the craft villages in the RRD. In Ha Noi area alone (including area of Ha Tay province before it was annexed to Ha Noi), there are 244 traditional craft villages (Huyen Sim, 2011).

The handcrafted products are varied, from rice noodle, alcohol, silk, bamboo, ceramic, rattan, wooden interior design, and clothe, to metallic foils. In a few villages, one is able to find a record of the origin of their craft production. This is often attached to a legend which has been told from generation to generation. The handcraft production was brought into the village and developed among the general agricultural environment of the RRD. Although handcraft production brings larger profit than the agricultural one, because it did not occupy all the working time, and there were a lot of arable land in the village, few households want to completely give up the agricultural cultivation.

In the traditional craft villages, household was a popular unit of production. The master craftsman was at the same time the head of the household. He was in charge of

⁴ There is no exact number of the traditional craft villages in Viet Nam. This is due to a difference in defining criteria (e.g. number of production households, production methods, and product types) and survey periods. The survey of Japan International Cooperation Agency (JICA) shows that there are currently 2017 traditional craft villages in Viet Nam. However, according to Viet Nam Traditional Craft Association (VICRAFTS), the number is 2790 in 2011.

business management, production management, especially the product design, training and transfer of the knowhow to the next generation. Each member of the family was in charge of a particular stage of business and production. The family members work together and train one another so that their business was maintained from generation to generation. In this way, the traditional craft villages in the RRD are distinctive not only in term of their profession but also in term of cultural tradition.

The handcraft production in the traditional villages of the RRD has experienced the ups and downs in the recent period. After 1954, the socialist reforms in the North of Viet Nam had changed the traditional production method based on the households in the villages into the form of cooperativization. Households were required to contribute their labor and facilities to state cooperatives. All the resources, including man and products were mobilized for the war of national salvation. After 1975, a few villages began to export their handcraft products to the Soviet Union and other socialist countries in the Eastern Europe. In the early 1990s, after the market of the Soviet Union and Eastern Europe collapsed, and the cooperatives were dissolved because of market-oriented reforms, the handcraft production in the villages was in crisis. A lot of craft workers, including those who had been working in the production cooperatives, had to find another job to survive.

By the late 1990s, the traditional craft villages in the RRD began to recover thanks to Viet Nam's international economic integration that led to the access to the world market. At the same time, the Government promulgated policy to encourage the development of handcraft production, especially with export orientation. The households in the traditional craft villages made significant effort to resume their production. Households that owned big business began to register as production companies and apply new technology and management method. They also have better connection to foreign markets. Some Vietnamese handmade products such as ceramic, bamboo, and silk have secured their foothold in the world market. In 1991, the total export value of all craft villages was merely \$6.80 million. It reached \$300.00 million in 2000 and \$700.00 million in 2005 (Hoang Ngan, 2006). In 2010, the export value of the handcraft products of the RRD alone was almost \$1.80 billion (Xuan Long, 2011).

However, the handcraft production in the villages has still faced with many problems. Limited access to capital has prevented the households from expanding their business. Since 2008, because of economic recession, the bank lending conditions have become more stringent. Insufficient and unstable supply of input materials is another major constraint to large-scale production. Production premises become smaller because the urbanization process encouraged local people to sell their lands. Backward technology and low skill labor have significantly reduced productivity. Although the workforce in the villages is abundant, qualified labor for the craft job is limited. In addition, environmental pollution is a serious challenge to the sustainable

development of the craft villages. It is estimated that environmental pollution is at the alarming level in around 80.00% of the craft villages (Xuan Long, 2011). While there are the opportunities for the rebirth of a number of craft villages, some villages are almost disappearing. According to Viet Nam Craft Village Association (VICRAFTS), 32.00% of the total craft villages are in good business, 42.00% are struggling for survival, and 26.00% are in the face of extinction.

Labor Issues in the Traditional Craft Villages

The craft villages in the RRD employ around 20 million labors, of which 30.00% are regular labors and the rest are seasonal workers (Xuan Long, 2011). Because production premises are located within the residential areas and handcraft making coexists with the agricultural production, not all households and labors in the villages are engaged with craft. However, in villages where craft is a good business, the share of craftsman in total workforce can be quite high. For example, in Phu Vinh (Phu Nghia commune, Chuong My district, Ha Noi), 90% of the village households take part in the making of bamboo goods. In Phuong La village (Thai Phuong, Hung Ha district, Hung Yen), textile production attract more than 2000 workers, including labors from 95.00% of the village households. In Phuc Tang commune (Viet Yen district, Bac Giang), production of bamboo goods employs around 6000 workers, including labors from 70.00% of the village households and brings about 50-55% of total income of the local residents (Viet Nam Cultural Heritage Association, 2010). The share of the households involved with the craft business is very high in the villages well-known for export products such as Bat Trang (Gia Lam district, Ha Noi) and Van Phuc (Ha Dong district, Ha Noi). Craft villages not only create jobs and income for local residents but also for labors from nearby areas and migrant workers from faraway provinces. For example, in Chau Khe commune (Bac Ninh), the steel mills employ around 5000-7000 regular workers, of which 50.00% are migrants

The craft villages help to provide job to the workforce in the rural areas, especially during the agricultural leisure. They can mitigate the adverse impact of agricultural land loss in the urbanization, and layoff in the reform of state-owned enterprises. It is estimated that, if the village exports a value of \$1 million in handcraft products, it can provide jobs to around 3000-4000 workers (Hoang Ngan, 2006). According to VICRAFTS, each production unit in the craft villages employs around 30 regular workers and 10 seasonal workers. The average number can be higher in some villages which run good business. For example, each embroidery handmade unit in Quat Dong (Thuong Tin, Ha Tay) or bamboo and cane production unit in Phu Vinh (Chuong My, Ha Tay) can employ around 200-300 worker in average (Huyen Sim, 2011). In addition, income of craft workers is around 4-5 times higher than income from agricultural production (Xuan Long, 2011).

Although the handcraft production in the villages provides job opportunities, it has to deal with serious labor problems.

From the demand side for labor, a lot of employers take advantage of the low-paid, also low-skill, labors and their unawareness of their rights and use this for exploitation.⁵ Using the rationale of “traditional craft village,” employers reduce investment on modern technology and machines to minimum, and hire only simple manual workers to cut cost. In the mechanic work, most machines are imported from the People’s Republic of China in an out-of-dated condition. Some machines are upgraded by local mechanics without any technical instruction and manuals therefore increasing the risk of accidents. Labor contract, health insurance and social security insurance are often ignored because in the views of employers, only unskilled labors are needed, and they are temporarily hired under verbal agreements during their agricultural leisure.

From the supply side, there is the careless and unawareness of labors. For example, most of the hired workers, in the pursuit of highest payment, would not like to pay for any kinds of insurance. As a result, they have to pay by their own in case of illness or accidents, and this is often a big money, which exceed what they have earned. In some places, workers do not have habit to use the safety instrument even though they are equipped. Moreover, because of their temporary employment, hired labors do not want to take part in any formal skill training, especially when they have to pay for this course. According to a survey by VICRAFTS in Binh Duong, Ben Tre, Dong Nai, Ho Chi Minh City, Bac Ninh, Hai Duong, and Thai Nguyen in 2010, it was very difficult to attract local people to attend the skill training courses. There is still a high risk that trainees may not continue their trained jobs after completing the training. Some vocational schools invested a lot of money into skill training courses but this only produced a minor effect on skill improvement of labor.

Ensuring sustainable development is thus a big challenge to the traditional craft villages in the RRD. The surveys of environmental conditions in the craft villages show that, more than 90.00% of labors are exposed to heat; 66.00% live in dust environment; 60.00% have contact with chemical elements; and 49.00% suffer from noise (Duy Chung, 2011). This results in serious diseases such as respiratory, skin and venereal diseases, asthenia etc. Unfortunately, accidents, illness and diseases usually occur among the poor, hired labors and exaggerate their miserability. Improving labor

⁵ The 1995 Labor Code of Viet Nam and the 2002 Revised Labor Code have amended several sections which benefited employees and enhanced respect of labor rights and better working conditions. The 2002 Revised Labor Code (effective from January 1, 2003) provided the regulatory framework for the rights and obligations of workers and employers, labor standard and labor utilization.

skills and raising awareness of labor about their working conditions are thus the economic and social prerequisites for the craft villages in the RRD.

Current Policies and Measures to Improve Labor Skills

So far, there have been several policies to promote the sustainable development of the craft villages and craft skill improvement. In 2005, the Ministry of Agriculture and Rural Development of Viet Nam (MARD) issued the so-called work plan “Each village has one profession” for the 2006-2015 period. The work plan pursues multiple objectives, including the exploitation of the local advantages in the production of specific products, and combination of factors such as local residents, state, businessman, researchers, and tourist organizers into the development process.

In 2006, the then Ministry of Industry of Viet Nam (now the Ministry of Industry and Trade of Viet Nam [MOIT]) submitted to the Government the Craft Development Strategy for the 2006-2015 Period. The strategy set out the objective of creating the regular jobs for 1.5 million labors and around 3-5 million farming workers during their agricultural leisure; developing a competitive production system; and building capacity for the craft villages.

In the same year, the Government issued Decree 66/2006/ND-CP on professional development in the rural areas. The core issue of the Decree was the preservation and development of the traditional craft villages, with the emphasis on several tasks such as: promoting the development of the craft villages in association with the development of tourist activities; preservation of the traditional craft villages; development of new craft villages, and awards for people and organizations who have contributed to the development of the craft villages.

In 2010, the Ministry of Planning and Investment of Viet Nam (MPI) issued the Socio-economic Development Orientation Plan for the Red River Delta in the 2011-2020 Period. The Plan identifies the objective of turning the RRD into the engine for economic, scientific, educational and health care service development and serve as the example for the other economic regions of Viet Nam to follow. The Plan also came out with a development work plan for the university, college and vocational training network in the RRD with an aim to improve the quality of labor. The specific objective of those plans was to increase the share of trained labor in total workforce in the RRD to 50.00% by 2015 and 60.00% by 2020.

Figure 1: Some Development Indicators of the Red River Delta
in the 2011-2020 Period

1. Annual economic growth rate at 10.50%
2. GDP per capita above \$4000; Labor productivity at \$8000.00-8200.00
3. Mechanical sector accounts for 60.00% of industrial sector
4. Non-agricultural sector accounts for 90.00% of the economy; Non-farm labor accounts for 65.00% of the total labor force
5. Urban unemployment rate below 4.50%
6. Annual reduction of poverty rate at 2.00% (according to new poverty line)

Source: MPI, 2010

Viet Nam Craft Village Association (VICRAFTS) was founded in the 1990s as a non-profit organization with an aim to promote the development of the craft villages throughout the country. Currently, it has more than 1000 members. VICRAFTS is very active in improving skills of people in the traditional craft villages as well as in creating job opportunities for the trainees. Different models of skill training are currently applied by VICRAFTS. For example, in 2011, VICRAFTS provided three modes of skill training, including: new skill training, skill training for labors in the material supply areas, and skill training with export orientation. These courses were offered in 21 provinces for 85 production sectors. Lecturers included master craftsmen, and trainees are provided with financial aids. According to VICRAFTS, local governments play a significant role in the sustainable development in the traditional craft villages.

3. Theoretical Framework and Method to Examine Labor Skills

The current theories of human capital and productivity (Becker, 1964; Hersch, 1991; Jacobsen, 1998; Koch and McGrath, 1996; Mincer, 1974; Pigou, 1928; World Bank, 1995) suggest a number of factors that can influence labor skills besides training worth being examined together.

Our research divides those factors into 5 categories of variables:

1. **Formal training:** including vocational skill training organized by local government, agencies, and vocational schools in a defined, formal curriculum.

2. **Education:** it is expected that workers with lower educational level find it more difficult to take advantage of skill training opportunities to learn new skills and move to the upper level of skill hierarchy.⁶
3. **Experience and Age:** in the traditional craft villages, it is expected that workers with longer experience and higher age possess higher skills.
4. **Informal training:** workers having family members or relatives who are involved with fine art making are expected to have higher skills than otherwise because they have the advantage of being taught by the older generation, even in the earlier age.
5. **Gender:** the effects of gender on skills may depend on the type of occupation. In our case study (the art of doing carpentry), it is expected that female workers do the simple job, and have lower skills than male.

Our research divides the skill hierarchy of labor into two levels:

1. **Skilled labor** which includes labor with high, medium, and master (very senior) level; and
2. **Unskilled labor** which includes low and unskilled labor.

The criterion to distinguish unskilled labor from skill labor is the types of tasks that labors mainly do in the process of making the fine art products.

The following tasks can be classified as for unskilled or low skill labor:

- Material processing (e.g. polishing; wood shaving; sawing; preliminary carving; transport etc);
- Painting (not involved with designing and drawing; and this may or may not include preparation of paint, depending on types of paint); and
- Other simple manual works

People whose main tasks are as above are support workers and apprentices.

The following works can be classified as for skilled labor:

- Designing; drawing; sculpture;
- Making special paint materials;

⁶ According to the ILO's World Employment Report 1998-1999, linking skill trainings with high school education would provide young people an incentive to go to school without the fear that such education will deprive them of the skills required to earn a living. In addition, this is an effective means to combat child labor.

- Coaching other workers;
- Owning and managing the business;⁷ and
- Other complicated works

People whose main tasks are as above are senior workers, very senior workers (master craftsman), owners and managers of the business.

In addition, **income level** can be used to differentiate skill levels into smaller scale besides two major categories: skill versus non-skill. It is expected that workers with higher income possess higher skills than those with lower income.

Our research used the extended Mincerian function to examine the effects of the above factors on skills and incomes of labor. The basic earning model developed by Jacop Mincer (1974) can be regarded as a cornerstone of empirical labor economics. The model captures the influence of education (i.e., year of schooling) and on-the-job training (i.e., learning from experience) on earnings of labor. Moreover, Mincer (1974) developed the rationale for the standard quadratic form for the experience variable. The function could be expressed as follows:

$$\ln Y_i = \alpha + \beta_1 S_i + \beta_2 EXP_i + \beta_3 EXP_i^2 + \varepsilon_i \quad (\text{Equation 1})$$

where:

- lnY_i: logarithm of hour wage of labor of individual i,
- S_i: number of years of schooling by individual i,
- EXP_i: years of experience of individual i, and
- EXP_i²: square of year of experience of individual i.

In this function, the coefficient on years of schooling (β_1) can be interpreted as the average private rate of return to one additional year of schooling, regardless of the level of schooling.

The Basic Mincerian Function can be developed to incorporate and quantify the effect of any potential factor on labor productivity. This improved function could be expressed as:

$$\ln Y_i = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \dots + \beta_n X_{in} + \varepsilon_i \dots \dots \dots (\text{Equation 2})$$

⁷ It is assumed that owners and managers of the business must know the fine art making to be able to open their business (i.e. they are not unskilled labor). However, since the conditions to start such a business may depend on various factors (e.g. capital, inheritance, management skills), fine art making skills of owners and managers can also be ranged from medium to high and very high.

In which, X_i are the potential determinants of labor productivity in the regression. X_i can be any variable such as years of education, potential experiences, region, migration status, marital status, occupation, etc.

In addition, we examine other factors (e.g. local socio-economic and cultural environment) which may affect skill training and skill of labor in the traditional craft villages. For example, the incentives for skill training and learning may be obstructed by the informal way of using labor. Because craft workers usually have short-term or temporary plans, they may not care for their skill improvement. In return, employers may have little motivation to consistently support skill improvement of their employees because the latter may quit unexpectedly to work for other bosses or in other fields. Many employers may hire only low-skill labor, especially in the fields that require protection of secret know-how. Average income and earning of the occupation can also affect skill training in the way that high earning is likely to encourage workers to invest more on training. In places, where access to affordable credit is available, training becomes accessible to poor labor too, and it can make a big difference by enabling trainees to start their own businesses.

4. Overview of Study Site: the Son Dong Art Village, Hoai Duc District, Ha Noi

To illustrate the labor issues in the traditional craft village of the RRD, our research examines the case study of Son Dong Art Village, and from this draw the policy implications for skill improvement. In September 2011, our team conducted a survey in Son Dong village, using face-to-face interview method and had in-depth interviews with workers, employers, and local officials in the Son Dong Commune People's Committees. The survey and in-depth interviews were effectively assisted by staffs from Son Dong Commune People's Committees, members of Son Dong Women Union, and of Son Dong Craft Village Association.

The initial survey sample size had 120 workers (employees) and 45 employers in Son Dong commune. The sample was randomly extracted from the labor database provided by local authority. However, during the survey process, data were only available for 119 workers and 42 employers in Son Dong.

Son Dong is a typical traditional craft village in the RRD in the context of urbanization and international integration. This is a 2,000 year old village, and it is now called Son Dong commune according to the government's administrative unit. Son Dong commune is located 15.00 kilometers (km) to the East of the center of Ha Noi. Before July 2008, Son Dong commune belonged to Hoai Duc district of Ha Tay province. After Ha Tay was annexed into Ha Noi, Son Dong commune and Hoai Duc

district became part of the expanded Ha Noi. Son Dong has an advantageous location because the provincial highway runs through the commune. This location facilitates Son Dong's trade development. However, the commune's main source of income comes from handicraft.

Son Dong commune has a total land area of 328.00 hectares, of which 203.70 hectares are used for farming, and 51.50 hectares are used for housing. In 2011, the commune has 2400 households with total population of 8700 people of which 5213 people are at the working age. Hundreds of youth from Son Dong are admitted to universities and colleges every year.

Among the villagers, few people know the exact story of the origin of the village's wood-carving craft and from the memory of the senior villagers, it was known that the production of handicrafts such as fine art, rattan and bamboo, carpet weaving, lacquer, sculpture, and statue casting and painting was already very developed in Son Dong in the 18th and 19th centuries. Historical books in Viet Nam wrote that talented artisans of the Son Dong village had left their skillful imprints around the country, from the North to the South. In the 20th century, however many of these crafts were lost, mainly during the war time. The Son Dong commune now has 7 cultural relic sites recognized by the state as an evidence for its enriched and old tradition.

The restoration of these traditional craft villages started in the mid 1980s when Viet Nam began the reform process with more attention paid to reviving and developing craft villages. In 1986, experienced artisan Nguyen Duc Dau (1896-1988) worked with the Hanoi University of Industrial Fine Art to organize a statue casting and painting course for people in the commune. This course lasted 6 months with 28 participants. The lectures by both village artisans and university instructors provided the trainees with not only the ability to make and paint statues but also the basic knowledge about fine art and how to breathe soul into their products. After this course, the craft of statue making and painting in Son Dong regained a momentum. At present, after 25 years, most of the trainees have become major artists at the age of 40. Some of them have owned major factories. The Son Dong Village Craft Association was established in 2000, and the Son Dong commune was recognized by the state as a traditional art village in 2001.

10 years after being recognized as a traditional art village, craft production in the Son Dong commune has grown significantly. During the 2001-2011 period, the craft's contribution to the commune's GDP increased from 50% to 60% while that of the agricultural sector reduced from 20% to 10%. In 2011, the service sector accounts for approximately 30% of the commune GDP. The commune has approved sustainable

tourism development plan to promote traditional craft production and resolve the environmental issues.

In 2011, 1500 households of Son Dong with more than 3000 people are involved in fine art making. 200 households are members of Son Dong Craft Village Association. 871 households earn their main income from fine art making. The craft revenue accounts for around 60-70% of the total revenue. In 2006, the total revenue of the village reached VND 50.00 billion, of which 80.00% are from fine art carpentry and painting business. The earnings of workers varied, depending on his skill while some households could earn hundreds of millions of dong a year. In addition, the development of the craft also attracts many labors from other provinces.

Training and learning is very important for the fine art making. The main products of Son Dong are old-styled wooden devotional and spiritual statues of Buddha, Mr. Good, Mr. Evil, La Han, parallel sentences, altars, bowl-like procession, and lacquer boxes. Making and painting those devotional products is a difficult job. To ensure the uniqueness and purity of the products, the artisans must have professional morality and soul. They must understand the origin of each product and the characters of each Buddha, saint, and be patient and creative. Each artisan must have his own secret to create distinction. He is living with, earning from and proud of his craft know-how. Artisans in Son Dong have preserved their secret, and passed it from one generation to another. As most households practice the craft at home, the children are familiar with the work and take part in the production process. These children can gradually learn the techniques and do the work themselves when they grow up.

Since the rehabilitation of the fine art making village, people in Son Dong began to learn new techniques in vocational training centers and fine art schools. However, those training courses are not frequently organized. The two most recent large-scale courses were organized in the early 2000s during 18 consecutive months by the Son Dong Craft Village Association with the financial support from foreign non-governmental organizations (NGOs) and the Ministry of Labor, Invalids and Social Affairs of Viet Nam. Those courses had successfully attracted around 100 people in the commune and helped improve the skills of local workers considerably. At present, small-scale training classes continue to be offered. However, it is quite expensive to attend the training because each student has to spend approximately D10 million for one course.

In the current context of urbanization, like many other traditional craft villages in the RRD, Son Dong is facing with a number of challenges to the sustainable development of the fine art making, such as environmental pollution, preservation of fine art making, increase of the value of the products, low income, and unemployment

pressure among young villagers. To deal with these challenges, the Son Dong artisans are aware that they must create new products, and improve their skills and production. The households should be integrated in a value chain and at the same time be specialized in certain steps of the production process to shorten the length of production and reduce the price of their products. However, it is of paramount importance to improve the skills of the artisans and the business owners. Son Dong Craft Village Association now plans to organize more training courses for local people, providing them with the experience of senior artisans and the basic knowledge about fine art economics, particularly the international market and marketing. At the same time, the association has been working with the Commune People’s Committee to improve the performance and efficiency of vocational training.

5. Discussions of the Survey Data

Profile of Respondents and Job Opportunities in Son Dong

In general, art labor in Son Dong is young and workers are relatively younger than employers. The average age of workers is 34.55, whereas the one of employers is 41.43. The median point of the age of workers is 33.00, which means that more than 50.00% of workers are aged 33.00 or below. The median point of the age of employers is 39.00. Because workers are younger, the proportion of single workers is higher than the one of employers (Table 2).

Table 2: Age of the Workers and Employers

	Mean	Min	Max	SE
Worker	34.55	17.00	54.00	9.31
Employers	41.43	27.00	66.00	8.99

Source: Authors, survey data. 2011

In contrast to some studies which concluded that craft provided job opportunities to migrant workers, our data shows that only 9.30% of workers are migrants and all of the employers are from the village. This suggests that craft in Son Dong provide jobs mostly to local habitants (Table 3).

Table 3: Respondents’ Profile

	Gender		Family Status		Type of Residence	
	<i>Male</i>	<i>Female</i>	<i>Married</i>	<i>Single</i>	<i>Residents</i>	<i>Migrants</i>
Workers (%)	75.60	24.40	80.87	19.13	90.70	9.30
Employers (%)	97.60	2.40	97.60	2.40	100.00	0.00

Source: Authors, survey data. 2011

The important role of craft in job creation should be emphasized in the context where workers and employers are usually from multiple-member families. 85.70% of the workers are from the families with at least 4 members and this proportion is 97.60% for the employers.

Protecting the traditional career is very important for the people in Son Dong. 87.20% of workers and 97.62% of employers said that they chose the art works because they wanted to preserve it. Among the workers, only 7.50% said that they ended up in the art works because they were not able to find other jobs; and 9.10% said they made this decision because of higher income.⁸

86.30% of the workers work as a full time labor and only 13.70% work as part time labor. For the latter group, besides art works, people are doing farm. 50.00% of these people said that the other job brought in the same amount of income whereas 45.50% said that income from the other job was lower than the one from art works. All employers are working full time.

Workers take initiative to look for their job or they are invited by the employers. One important channel that brings information to the labors is through recommendation by friends. The assistance of the local governments and labor agencies is very limited (Table 4). For the employers, to start their business, 85.40% said that they developed the production units by themselves and only 14.60% said that they inherited from their family.

Table 4: How the Workers look for the Art Making Job?

	%
By themselves	41.52
Recommended by friends	22.88
Help from local government, and local organizations (e.g. women union, youth association)	6.78
Invited by owner	33.05

Source: Authors, survey data. 2011

Art workers in Son Dong earn around D3,914.00 thousand per month on average. This is a relatively good earning level compared with new national standard of poverty line.⁹ More importantly, 77.10% of the workers told that their earnings

⁸ With some respondents referred to more than one reasons.

⁹ According to new national standard of the poverty line, poor household in the rural areas is defined as the one with average income per capita below D400 thousand per month; poor household in the urban areas is defined as the one with average income per capita below D500 thousand per month. According to survey data, the average number of the family members of art workers in Son Dong is 4.47, the average income per capita of art workers' household is at least around D875 thousand per month (in case other family members do not have income).

contributed to the main source of income of their household. 51.30% of the workers also said that their incomes were stable, and 41.20% said their income was relatively stable.¹⁰

Earnings of the employers are varied within a wide range. Some employers can earn more than D41,000.00 thousand per month. This indicates a big difference in the business scale of the production units in Son Dong (Table 5). Although entrepreneurs in Son Dong nowadays are well aware of the importance of brand name and other benefit associated with business registration, the data shows that only 39.00% of the production units have their business licenses. In contrast, a kind of unbound membership in craft village association is more attractive to the employers.¹¹

Compared to the workers, a larger proportion of employers (78.00%) responded that their income was stable. 19.50% of employers said their income was relatively stable.¹² This reflects the advantage of the employers versus workers in their hiring-being hired relationship.

Table 5: Income of Workers and Employers (D thousand /month)

	Mean	Min	Max	SE
Worker	3914.73	1500.00	5100.00	887.73
Employers	11965.00	3000.00	41666.67	7030.20

Source: Authors, survey data. 2011

In the view of outsider, there may be a strong working pressure on both workers and employers. Both have to work 7 days a week. On average, workers have to work 8.41 hours per day whereas the average daily working hour of the employers is 9.27. In addition, 95.70% of the workers do not have labor contract, and 89.00% of the workers do not participate in social insurance program. The latter proportion is 81.60% among the employers. Interestingly, the majority of workers and all employers are satisfied or feeling ok with the current job.

Table 6: Satisfaction of Workers and Employers about their Current Job

	Satisfied	Feeling OK	Dissatisfied
Worker (%)	55.90	41.50	2.50
Employers (%)	85.40	14.60	0.00

Source: Authors, survey data. 2011

¹⁰ Only 7.60% of the workers said their income was unstable.
¹¹ 90.20% of employers said that their production unit joined the craft village association.
¹² Only 2.50% of the employers said their income was unstable.

61.30% of workers said that they would like to have their own business. Capital, availability of labor and skills of owners are seen by the largest proportion of both workers and employers as the significant factors in setting up a business. However, workers tend to value capital more than employers, who put greater emphasis on skills of the business owners. A larger proportion of employers also thought that supports from local government and number of family members with experiences played a significant role in setting up a business. The employers also said that they would like to expand their production unit into enterprise forms.

In addition, sufficient space was regarded as important condition to build the production units. This becomes urgent need for the craft village in the process of urbanization and when production inside the village was complained for polluting the surrounding environment.

Table 7: Factors that can have Influence on Setting up Art Making Business

		Significant	Fairly Significant	Insignificant
Capital	Workers (%)	81.00	18.10	0.90
	Employers (%)	70.70	29.30	0.00
Skill of owners	Workers (%)	79.50	20.50	0.00
	Employers (%)	92.70	7.30	0.00
Number of family members with experience	Workers (%)	24.30	74.80	0.90
	Employers (%)	45.00	55.00	0.00
Support from local government	Workers (%)	30.00	69.10	0.90
	Employers (%)	48.80	51.20	0.00
Availability of Labor	Workers (%)	82.90	16.20	0.90
	Employers (%)	78.00	22.00	0.00

Source: Authors, survey data. 2011

With regard to gender issue, the majority of workers and all employers said handcraft making brought job opportunities to female labor in Son Dong. Nevertheless, it attracted female labor as hired workers rather than employers. Women occupy 24.40% of the total workers but within our sample, there is only one female employer (or 2.40% of total employers).

Table 8: Views on Job Opportunity for Female Labor in Son Dong

	Easy	Relatively easy	Difficult
Workers (%)	30.80	67.50	1.70
Employers (%)	22.50	77.50	0.00

Source: Authors, survey data. 2011

Moreover, 78.00% of workers and 60.00% of employers have general impression that female labor is only involved in unskilled tasks of the fine art making as support workers.¹³ This proves that fine art production is a man-dominated work.

Table 9: General Comparison of Job Opportunities between Male and Female Labor

Response	Workers (%)		Employers (%)	
	Agree	Don't agree	Agree	Don't agree
Man gets job more easily	52.20	47.80	62.50	37.50
Man's earning is higher	98.20	1.80	100.00	0.00
Man has more stable job	22.00	78.00	32.50	67.50

Source: Authors, survey data. 2011

In addition, 52.20% of workers and 62.50% of employers thought that man got job more easily in fine art making. All most all workers and all employers agreed that man's earnings were higher (Table 9). In fact, the data shows that average income of female workers is D2440.00 thousand per month while that of male workers is about D3652.84 thousand per month. Most of male labor stated that they had higher income because they had to take part in important process which required higher skill level, and because women took part in the process that only required very low or simple skills, their earnings were lower.

Overview of Labor Quality

Art labor in Son Dong is quite experienced. The average working experience of the workers is 11.70 years, of which they have 8.86 years working for the current production unit.¹⁴ The employers have been engaged in the art work much longer. Their average working experience is 18.12 years, of which 12.52 years have been spent in their current production unit¹⁵ (Table 10).

¹³ 20.3% of workers and 40% of employers thought that women involved with the fine art making include both skilled and unskilled labor.

¹⁴ Ranged from 1 to 25 years

¹⁵ Ranged from 1 to 25 years

Table 10: Working Experience of Workers and Employers

	Mean	Min	Max	SE
Worker	11.70	1.00	30.00	6.59
Employers	18.12	5.00	35.00	6.20

Source: Authors, survey data. 2011

The data shows that 69.52% of labors are qualified as skilled workers and 30.48% is considered as unskilled workers. The share of unskilled labor (30.48%) is much lower than we have expected (Table 11). This can be explained by the fact that the fine art making requires certain skill level for labors to join in, and workers are responsible for a wide range of working stages in the production process rather than specialized in either lower or upper stages as we have thought.

In fine art making, 63.20% of employers matched them with labor at medium skill level, whereas 36.80% said that they had high skill level. The latter figure may imply that, on the one hand, it does not require high level of art skills to start the fine art production units, on the other hand, employers may need to improve their art skills to better support their business.

Table 11: Skill Levels of Workers in Fine Art Making

	(%)
Unskilled labor	30.48
Skilled labor	69.52
Total	100.00

Source: Authors, survey data. 2011

The educational level of labor in Son Dong is quite high. Art workers spend around 10 years at school on average. There are some employers who have postgraduate diploma.

In contrast, the survey shows that there are a large number of workers and employers who do not participate in any formal skill training courses.¹⁶

¹⁶ According to the local authorities, there have been several training courses on art making technique.

Table 12: Proportion of workers and employers who participate and do not participate in the formal skill training

	Worker (%)	Employer (%)
Participation in formal training	17.80	24.32
Non-participation in formal training	82.20	75.68
Total	100.00	100.00

Source: Authors, survey data. 2011

82.20% of workers have not participated in any formal skill training courses and the proportion is 75.68% for the employers (Table 12). The data shows that the traditional apprenticeship and on-premise training system is an effective competitor of the formal training. 79.20% of the workers said that they did not participate in formal skill training because they had passed through the training in the production unit.¹⁷ 14.85% of workers said that there was no appropriate course for them. This proportion is much higher (46.67%) among the employers (Table 13). Moreover, 70.00% of the employers said that they did not come to the skill training course because they already had the training taught by their parents or relatives on the premise.¹⁸

Table 13: Reasons for Workers and Employers not to Participate in Formal Skill Training

	There is no appropriate course	Cost is too high to pay	Training time is too long	Your work doesn't need	You receive training in the production unit
Workers (%)	14.85	1.98	1.98	1.98	79.20
Employers (%)	46.67	0.00	0.00	3.33	N/A ^(*)

Source: Authors, survey data. 2011

(*) Not appropriate for the employers

The majority of the workers and employers, including those who already participated and have not participated in the formal skill training, thought that the cost and duration of the current training program are reasonable for them to attend. However, they also thought that the skills that have been taught so far were very popular (i.e. at medium level) in the village and they already knew (Table 13).

Thus, there is still a big demand for the skill training program. Very few workers and employers thought that their works didn't require skill training. In fact,

¹⁷ Hereby referred to the training of both beginners (apprenticeship) and those who are experienced workers but new comers of the production unit so that they can be familiarized with some particular techniques used in their new premise.

¹⁸ Some employers (13.00%) said that they simply did not have time to participate.

70.40% of workers and 64.10% of employers reflected that the number of skill training courses offered was still few (Table 14). In addition, 80.00% of workers and 70.00% of employers said that they would like to take part in courses to develop their skills.

Table 14: Reflection of Workers and Employers to the Existing Formal Skill Training Program

<i>Number of training course</i>	Many	Sufficient	Few
Workers (%)	2.60	27.00	70.40
Employers (%)	0.00	35.90	64.10
<i>Training cost</i>	High	Moderate	Low
Workers (%)	8.80	85.80	5.30
Employers (%)	7.90	86.80	5.30
<i>Training time</i>	Long	Appropriate	Short
Workers (%)	0.00	93.80	6.20
Employers (%)	2.90	85.30	11.80
<i>Trained Skill Level</i>	High	Medium	Low
Workers (%)	1.72	92.24	6.00
Employers (%)	0.00	94.70	5.30

Source: Authors, survey data. 2011

People thought that skill training should be organized by local government and/or craft village association (Table 15). Some highly welcome Son Dong Craft Village Association to set up courses to improve the skills. 82.90% of the employers said that craft village association played an important role in helping improve the skills of labor. Interestingly, 25.60% of the employers said that skill training courses should be provided by various actors or in a combined form such as joint initiative among employers, local government, craft village association and vocational schools. 50.00% of the employers said that they have paid for their employees to participate in the skill training.

Table 15: Responses to Question: Who Should be Responsible for Organizing Skill Training Courses?

<i>Organizations/Persons</i>	Students should find by themselves	Employers	Local government	Craft Village Association
Workers (%)	4.40	2.65	58.40	46.90
Employers (%)	0.00	0.00	41.00	33.30

Source: Authors, survey data. 2011

The data shows that 97.30% of workers have been trained in their production unit.¹⁹ Trainers include employers, senior workers and very senior workers (master craftsman) with employers playing the essential role. In addition, the majority of workers thought that the duration of such training was appropriate²⁰ whereas the skill offered is at the medium level, i.e. reasonable for the new workers to learn (Table 15).

Table 16: Reflection of Workers to the Training in the Production Units

<i>Instructor</i>	Employers	Senior Workers	Very Senior Workers
%	76.07	38.46	22.22
<i>Training time</i>	Long	Appropriate	Short
%	1.70	94.10	4.20
<i>Trained Skill Level</i>	High	Medium	Low
%	2.50	91.60	5.90

Source: Authors, survey data. 2011

All employers said that they have organized the training in their premise.²¹ The instructors include the employers themselves (55.26% of the cases), followed by senior workers (44.74%), and very senior workers (5.26% of the cases). Training for skills at medium level is available in most production units (92.90%) but high skill training is only available at 17.90% of the production units and 10.50% of employers said they provided skill training at low level in their units.²²

¹⁹ For those who have not passed though the training in the production unit because they already acquired needed skills.

²⁰ The average duration of the training is 10.97 months. Some workers have to spend 36.00 months on apprenticeship.

²¹ The average duration of the training is 11.49 months. Some workers have to spend 30.00 months on apprenticeship.

²² 95.80% of the workers are paid during their apprenticeship, whereas 94.90% of employers said they paid workers for their apprenticeship, ranging D25,000.00 per day to D80,000.00 per day.

In addition, 26.90% of workers and 27.50% of employers said that training in the production unit was more important than formal skill training whereas 73.10% of workers and 70.00% of employers said they were equally important. Only 2.50% of employers said that training in the production unit is less important than formal skill training.

Traditional training of workers in the premise may fit well into the local social context where there are several members of the family involved with the fine art making. Our data shows that by average, in the workers' household, there are more than two members involved in the fine art making.²³ For the households of the employers, there are more than three members.²⁴ There are even the households of which 12 members work in the fine art production. On average, an employer hires more than 4 relatives in his production unit.²⁵ 71.80% of the workers also reported being relatives of their employers.

All employers reported that they were passed the fine art making techniques from their relatives whereas this proportion is 88.90% among the workers. People in Son Dong are exposed to fine art learning and making very early. Around 45.00% of workers and employers reported that they were constantly exposed to fine art making before the age of 20 (Table 17). 74.40% of workers and 90.00% of employers said that they would like to orient their children to fine art making career.

Table 17: Age of Exposure to Fine Art Making and Learning

Age	Workers (%)	Employers (%)
Under 10	0.80	0.00
Between 10 and 15	5.00	10.00
Between 15 and 20	37.80	35.00
Over 20	56.30	55.00

Source: Authors, survey data. 2011

Factors that Influence Workers' Skills and Incomes

To examine the factor that can influence the skills of worker we developed a logistic function as follow:

$$\text{Logit}(\text{SKILL}_i) = \alpha + \beta_1\text{S}_i + \beta_2\text{EXP}_i + \beta_3\text{AGE}_i + \beta_4\text{GENDER}_i + \beta_5\text{FTRAIN}_i + \beta_6\text{INFTRAIN}_i + \varepsilon_i \quad (\text{Equation 3})$$

where:

SKILL_i = if individual i is qualified as skilled worker, 0 otherwise,

²³ The statistic figure is 2.61

²⁴ The statistic figure is 3.54

²⁵ The statistic figure is 4.68

S_i = number of school years of individual i ,
 EXP_i = number of years of experience of individual i ,
 AGE_i = Age of individual i ,
 $GENDER_i$ = If individual i is a male; 0 otherwise,
 $FTRAIN_i$ = If individual i attended any formal skill training courses, 0 otherwise,
 $INFTRAIN_i$ = If individual i was transferred skills from his/her relatives/family members (or having informal training), 0 otherwise.

In the statistical results of logistic function (Table 18), the coefficients of all variables are positive, indicating that all 7 factors may have positive effects on the likelihood of being a skilled workers. However, because only the coefficient of EXP_i is

Table 18: Estimation Results of Logistic Function

Variables	Coefficient <i>P-value</i>
Constant	(5.453) ^b <i>0.026</i>
S_i	0.119 <i>0.421</i>
EXP_i	0.267 ^a <i>0.005</i>
AGE_i	0.843 <i>0.187</i>
$GENDER_i$	0.061 <i>0.249</i>
$FTRAIN_i$	0.118 <i>0.868</i>
$INFTRAIN_i$	0.099 <i>0.898</i>
Max-rescaled R-squared	0.496
Likelihood Ratio Chi-square	42.405 ^a
AIC	122.729

() negative

^a statistically significant at 1%; ^b statistically significant at 5%

Note: P-value in italics

Source: Authors, survey data. 2011

statistically significant (at the 5% level), the function shows there is sufficient evidence to say that the more experienced the workers, the more likely they are skilled. More importantly, it shows that neither the higher number of school years nor attending in formal skills training or being trained by relatives/family members may increase the likelihood of being a skilled worker.

To examine the factors that can influence the income of workers, we developed an extended Mincerian function as follow:

$$\ln Y_i = \alpha + \beta_1 S_i + \beta_2 EXP_i + \beta_3 EXP_i^2 + \beta_4 AGE_i + \beta_5 GENDER_i + \beta_6 FTRAIN_i + \beta_7 INFTRAIN_i + \varepsilon_i \quad (\text{Equation 4})$$

where:

$\ln Y_i$ = logarithm of monthly income of individual i,

S_i = number of school years of individual i,

EXP_i = number of years of experience of individual i,

EXP_i^2 = square of number of years of experience of individual i,

AGE_i = Age of individual i,

$GENDER_i$ = If individual i is a male; 0 otherwise,

$FTRAIN_i$ = If individual i attended any formal skill training courses, 0 otherwise,

$INFTRAIN_i$ = If individual i was transferred skills from his/her relatives/family members (or having informal training), 0 otherwise.

In the statistical results (Table 19), the coefficients of all variables (except EXP_i^2) are positive. The coefficients of S_i , EXP_i , AGE_i , $GENDER_i$, and $INFTRAIN_i$ are statistically significant (at the 5% level). Thus, our model suggests that there is sufficient evidence to conclude about the positive effect of a number of factors, including: number of school years, number of year of experience, being a male worker compared to female worker and being transferred skills from relatives/family members (or having informal training) compared to not, on the earning of workers. More importantly, compared to other coefficients, the magnitude of the coefficient of $INFTRAIN_i$ is much greater (= 0.119), indicating a big effect of informal training on the worker incomes relatively to other factors. In addition, because the coefficient of $FTRAIN_i$ is not statistically significant, we do not have sufficient evidence to say that attending in a formal skill training course help to increase the incomes of workers.

Table 19: Estimation Results of Extended Mincerian Function

Variables	Coefficient <i>P-value</i>
Constant	7.053 ^a <i>0.000</i>
S _i	0.022 ^a <i>0.007</i>
EXP _i	0.044 ^a <i>0.000</i>
EXP _i ²	(0.002) ^a <i>0.000</i>
AGE _i	0.291 ^a <i>0.000</i>
GENDER _i	0.013 ^b <i>0.000</i>
FTRAIN _i	0.057 <i>0.181</i>
INFTRAIN _i	0.119 ^b <i>0.022</i>
Adjusted R-squared	0.623
F value	25.280
P > F	0.000

() negative

^a statistically significant at 1%; ^b statistically significant at 5%

Note: P-value in italics

Source: Authors, survey data. 2011

6. Conclusions and Policy Recommendations

Policy to Encourage the Development of Craft Villages

Craft is an important source of employment and income in Son Dong. It helps to relieve the adverse socio-economic impacts on this semi-rural traditional village from pressure of diminution of agricultural lands during the process of urbanization. Earning from fine art making is not only a vital source of household income but also higher and more stable than other sources of earnings (e.g. agriculture, construction) in the rural areas. Thanks to the craft, Son Dong people have become wealthier and they are now able to look forward to meeting the criteria of “New Rural Commune Model”

in the next few years.²⁶ The changes in Son Dong provide a vivid evidence for the fact that encouraging craft development in the rural villages is a proper policy which should be continued with priority.

Institutional Dimension of Craft Labor Market

Labor market for craft village such as Son Dong is not institutionalized. This challenges various conventional assumptions about factors that can influence skills, income as well as quality of labor. There is almost no institutionalized channel that brings demand and supply of labor together. Workers and employers find each other randomly. The assistance of local government and labor agency in this aspect is limited. As the result, the employer-employee relationship is less formal. Almost no labor contract is signed. Very few employers and employees take part in social insurance program. Very few production units registered their business. The most popular link among entrepreneurs and workers is through craft village association which is also less formally binding organization. People do not consider support from local government as important. Unfortunately, this is not the only case of Son Dong but also of other traditional craft villages. Improving the skills and quality of labor in this area must begin with the efforts to institutionalize labor-employer relationship, first of all, by enforcing the labor contract and social insurance program.

Factors that Affect Incomes and Skills of Labors

Income of workers in the craft villages like Son Dong are affected by various factors, including number of school years, number of years of experience, being a male compared to female and being transferred skills from relatives or family members (i.e. having informal training).

Having attended in formal skill training help to increase neither incomes nor skills of workers while being transferred skills their relatives or family members has a strong effect on the income level of workers. In fact, number of years of experience is the only factor that has a significant influence on the skill level (i.e. skill/none-skill) of workers. This may reflect a typical and very culturally-embedded characteristic of labor specialization in the fine art making and in the craft villages in general, i.e., only experienced workers are allowed to perform complicated tasks permanently. While being trained (formally or informally), and higher level of education may help workers

²⁶ 19 criteria of “New Rural Commune Model” related to specific indices on: planning and implementation of planning, transportation, hydraulic system, electric grid, schools, cultural premises, rural market system, postal system, residential areas, income per capita, poverty rate, labor structure, production organization, educational level, health service, cultural elements, environment, socio-political system, social security and order.

to have higher income, only number of years of experience can help them to move to the upper stage of the fine art making “chain” permanently.

In contrast to the income of workers, the income of employers is varied, indicating a wide discrepancy in business scales in Son Dong. This may not be a condition of an efficient production chain as resources are scattered. Forming an alliance among the entrepreneurs (e.g. in a form of cooperatives) is necessary to facilitate cooperation among the production units, increase overall business scale and make them specialized in a particular stage of the value chain. Specialization of the production units also leads to specialization of labor and make them work more productive. Son Dong entrepreneurs have been able to successfully exploit the potential of domestic market. However, they should take further step to reach to the world market. They must increase their competitiveness to realize this goal.

Demand and Supply for Formal and Informal Trainings

The failure of the current formal and informal training system in craft villages such as Son Dong is its inability to bring the trainees to the upper level of the task chain. The current vocational training program is appropriate for neither employers nor workers. There is a redundancy between formal training and informal training which must always be taught in the production premise because both kinds of training target the similar skills which are popular among labors.

Nevertheless, there is still a big demand for skill training programs, either formal or informal. The majority of workers and employers said that they wanted to take part in the training to improve their skills. This indicates the feeling, even worry of competitive pressure from outside by craft labors. Skill learning is more appealing for the young entrepreneurs who recently returned to the traditional fine art making business. Because these people tend to spend more time on schools, they are not able to acquire so many skills or accumulate so rich experiences as the older generation. Our survey data shows that it does not require very high skill level to start a production units, but employers may need to improve their fine art making techniques to develop their business (e.g. to be able to provide new designs to the market).

The training strategy must be changed by allowing for greater flexibility. There is no need to organize large-scale courses as they were before. Training must target at higher skill level and at specific instead of general skills. Master craftsman can be invited to guide a smaller group of students in premise. More importantly, various skills beyond fine art making are needed such as accounting, export, company management etc.

Neither formal training nor informal training (i.e. teaching at the production premise by relatives, family members, senior workers and business owner) alone can

meet the training demand of labors in the fine art making because it becomes increasingly specific. Institutional arrangements with the partnership between employers and workers as well as among employers, workers and the government can allow for creative types of training. Thus, there is a need to create more forms of mixed training, for example, between government-supported and NGO-based training programs in the local communities. Among local organizations, craft village association should play more active role.

Other Socio-economic Conditions of Labor in Craft Villages

The dark side of the income and employment opportunities in the traditional craft villages such as Son Dong should be considered. Like many traditional handicrafts, fine art production is a man-dominated work. Although job opportunities are available for female labor, women are discriminated in fine art making, in term of not only entrepreneurship (i.e. to become the owner or manager of a production unit) but also incomes. In many production units, women are usually family members of the owners (e.g. wives and daughters) and work as supporting labors besides their husbands, fathers and sons. This also hampers the motive of female labor to improve their skills. Ensuring gender equality in the village handicraft requires more active role of the local organizations such as women unions. Women unions in commune such as Son Dong have so far successfully brought women out of their home to work. These organizations should take further step to raise the awareness, at the same time increase the capability of women to work as equally as men in the labor market.

Capital, skills and availability of labor are considered as three most important factors to start a business in fine art production. Unlike other simple manual jobs (e.g. construction), fine art craft requires certain minimal skill level for labors to join in to earn money, thus making it less attractive for labors with none skills. Shortage of labor pool is now a serious problem of not only Son Dong but also other traditional craft village.

Our survey shows that preservation of traditional career is the decisive motive of both workers and entrepreneurs in fine art making. However, cultural motive should also be looked from another angle. As the wave of modernization and urbanization sweeps through the rural commune, young people now do not like to follow the career of their older generation. In Son Dong, over the past few years, many have quitted handicraft to look for a new job in Ha Noi. This is a popular phenomenon especially among the educated young generation. Because craft in Son Dong still attracts a small number of migrant labors, increasing the latter can be a viable solution to the problem of worker shortage. Local government should relax the policy on household registration (the *ho khau* system). Craft villages like Son Dong should establish an institutional labor connection with outside such as by creating a craft labor agency to

help Son Dong entrepreneurs communicate with vocational training schools and serve as the inquiry point for job seekers from other places.

Accessibility to finance is another crucial factor not only for labors (with skills but without capital) to open a new business, but also for existing managers to expand their business activities as well as for low-income workers to participate in skill training. In fact, the performance of financial service system is very poor in Son Dong and other traditional craft villages. The Viet Nam Bank for Agriculture and Rural Development (VBARD) is dominating the rural financial market. However, individuals, households and firms are often involuntarily excluded from bank loans because they are not qualified for meeting the criteria (e.g. good credit history, collateral, administrative procedure and fees). In many cases, they voluntarily exclude themselves from the use of formal financial services in the belief that they would be refused after applying. The above barriers in the access to formal financial services cause people to shift their choice to informal channels which are more fraudulent, risky and contingent. Increasing the number of VBARD branches can facilitate the use of financial services in the craft villages. More importantly, the development of the People's Credit Organizations (i.e. a kind of credit cooperative) and financial shelf-help groups among the workers and entrepreneurs can help to overcome the problem of capital shortage.

In addition to the above three factors, limited production space affects the expansion of business activities of many production units in Son Dong. This is a popular problem in many craft villages during the process of modernization. In the planning for sustainable development of craft villages, local government and entrepreneurs should think of moving production activities into one place, a kind of craft zone (following the model of industrial zone) outside the village, turning the latter into a commercial and tourist site.

Shortcomings and Further Studies

Because our research only looks at one case of traditional craft village in the RRD, one should not over-generalize its conclusions and implications to all traditional craft villages without thorough comparison. We are well aware that different craft villages may have different social, economic and cultural features. For example, in the silk producing village of Van Phuc, female workers may enjoy better working conditions because silk producing is their typical works. Because the labor market for the craft village is uninstitutionalized, some conclusions from our research may not be conventional (e.g. insignificant effect of formal and informal skill training on skill levels), and over-generalization of this must be avoided.

There are still technical shortcomings which we have tried to address within the constraint of time and resources. Our classification of skill levels in fine art making (i.e. skilled labor vs. unskilled labor) can be criticized as broad. We have tried to address this problem by using incomes as the proxy for skill levels. Because of the small sample size, we were unable to use econometric model to examine the data of employers. Instead, we exploited the statistic numbers to provide the readers with necessary understanding of their business features. Our aim is to carve out a dynamic picture of a traditional craft village in the RRD in the face of urbanization, modernization and transition toward market economy with both bright and dark sides.

Future research in this field should be a comparative study among the traditional craft villages (e.g. with different crafts). In addition, greater insight of the social and cultural life of the craft villages should be studied with more in-depth interview and participation observation. More insight investigation of fine art making procedure and informal training process in the premises should be carried out in future qualitative studies./.

*** Note:**

For the purpose of conversion, the exchange rate between the American dollar and Viet Nam dong at the time of the survey is: \$1 = D20,000.00 (rounding number)

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Appendix 1:
QUESTIONNAIRE FOR WORKERS

Question No

A. BASIC INFORMATION

A1. Full Name:

A2. Gender: 1. Male 2. Female

A3. Age:.....

A4. Current marital status: 1. Married 2. Single

A5. How many children do you have?:persons

A6. How many members are there in your family? :.....persons

A7. Are you resident of this village?

1. Yes 2. No

A8. Number of years spending at school:.....years

(Note: if university level, number of years = 12 + years in university)

B. EMPLOYMENT INFORMATION

B1. You choose this job because of:

- (1) Preserving it
- (2) Higher income
- (3) Cannot find another job
- (4) Other

B2. Your current type of job:

1.Full-time 2.Part-time

If you work part time, please answer question B2a

B2.a Compare with income of another job, the income of current job:

Higher Same Lower

B3. How long have you done this job (in this unit and other units before).....years
(or months)

B4. How long have you worked for this unit:.....years (or months)

B5. You work as:

- 1. Support labor
- 2. Senior labor

B6. Your income from this job (in D1000):.....per month

B7. How many hours do you work each day:.....hours

B8. How many days do you work each week:.....days

B9. Your income is the main income of the household, are not you?

- 1. Yes
- 2. No

B10. Please indicate the level of your income?

- 1. Stability
- 2. Average
- 3. Instability

B11. How were you looking for this job?

- 1. by myself
- 2. Recommended by friends
- 3. Labor agency/Employment office
- 4. Local government, and local organizations
- 5. Invited by owner
- 6. Other

B12. Have you got employment contract?

- 1. Yes
- 2. No

B13. How do you feel about your present job?

- 1. Satisfied
- 3. Average
- 4. Unsatisfied

B14. Are you paid social insurance?

- 1. Yes
- 2. No

B15. Are you intending to set up your own unit?

- 1. Yes
- 2. No

B16. According to you, which of following factors influence in setting up your own unit?

	1. Significant	2. Fairly Significant	3. Insignificant
--	----------------	-----------------------	------------------

- (3) local government
- (4) Craft Village Association
- (5) Other:.....

D. INFORMAL TRAINING

D1. Have you received training in your work?

- 1. Yes
- 2.No

If No, please move to question D7. If Yes, please answer question D2

D2. Who instruct you?

- (1) owner of this business
- (2) very senior workers
- (3) senior workers

D3. How long is the training :.....(days/months)

D4. Time of training is:

- 1. Long
- 2. Medium
- 3. Short

D5. Skills which you are taught:

- 1. High
- 2. Medium
- 3. Low

D6. During the apprenticeship, are you paid?

- 1. Yes
- 2. No

D7. Compare with vocational training, training in the production unit is:

- (1). More important
- (2). Same
- (3). Less important

D8. Would you like to take part in courses to improve your skill?

- 1. Yes
- 2. No

D9. If you have not received training in your work, please indicate the reasons:

- (1) there is no training in the production unit
- (2) there is training, but you are not required to take it
- (3) other:.....

E. HEREDITARY FACTORS

E1. How many persons in your family working in the same kind of jobs with you (not necessary in the same enterprises):.....persons

E2. Have you got the consanguineous relationship with the owner? (e.g. son, daughter, wife, sister, brother)

1. Yes

2. No

E3. Did you learn the skills from your relatives (owner of this unit or other relatives working in the unit)?

1. Yes

2. No

E4. When did you begin to learn?

1. Under 10

2. Between 10 and 15

3. Between 15 and 20

4. Over 20

E5. Do you allow your child learning this job?

1. Yes

2. No

F. GENDER GAP

F1. Do you agree with the following statements regarding male and female labor in the village?

	1. Agree	2. Don't agree
a. Man gets job more easily	<input type="checkbox"/>	<input type="checkbox"/>
b. Man's income (earning) is higher	<input type="checkbox"/>	<input type="checkbox"/>
c. Man has more stable job	<input type="checkbox"/>	<input type="checkbox"/>

F2. In general, the female labors working in the production units

1. Unskilled labor

2. Skill labor

3. Mixed

F3. Please indicate the job opportunity for female labor in the village?

1. Easy

2. Fair

3. Difficult

Thank you!

B5. In fine art making, you see your skills at the following level:

- 1. Low skill
- 2. Medium skill
- 3. High skill
- 4. Very high skill

B6. Your income from this job (in D1000):.....per month

B7. How many hours do you work each day:.....hours

B8. How many days do you work each week:.....days

B9. Please indicate the level of your income

- 1. Stability
- 2. Average
- 3. Instability

B10. How did you set up your unit?

- 1. by myself
- 2. inherited
- 3. Other

B11. Did your unit register the business license?

- 1. Yes
- 2. No

B12. Did you participate in Vietnam Craft Villages' Association?

- 1. Yes
- 2. No

B13. How is the important of Vietnam Craft Villages' Association in improving labor's skill?

- 1. Significant
- 2. Fair
- 3. Insignificant

B14. How do you feel about your present job?

- 1. Satisfied
- 2. OK
- 3. Unsatisfied

B15. Are you take part in social insurance?

- 1. Yes
- 2. No

B16. According to you, which of following factors influence in setting up your own unit?

	1. Significant	2. Fairly	3. Insignificant
--	----------------	-----------	------------------

- (1) workers find by themselves
- (2) employer
- (3) local government
- (4) Craft Village Association
- (5) Other:.....

D. INFORMAL TRAINING

D1. Have you organized the training for labor in the unit?

- Yes No

If No, please move to question D5. If Yes, please answer question D2

D2. Who instruct in your training?

- (1) owner of this business
- (2) master
- (3) senior workers

D3. How long is the apprenticeship training :.....(days/months)

D4. Skills which you teach:

1. High 2. Medium 3. Low

D5. Do you pay for the apprenticeship?

1. Yes 2. No

D6. Compared with vocational training, training in the production unit is:

- (1). More important
- (2). Same
- (3). Less important

D7. Would you like to take part in courses to improve your skill?

1. Yes 2. No

D8. If you have not organized the training in your unit, please indicate the reasons:

- (1) spending a lot of time and money
- (2) your labor doesn't need
- (3) Other

E. HEREDITARY FACTORS

E1. How many persons in your family working in the same kind of jobs with you (not necessary in the same enterprises):.....persons

E2. Have you got the consanguineous relationship with the workers? (e.g. your son, daughter, wife, sister, brother)

1. Yes

2. No

E3. Did you learn the skills from your relatives (owner of this unit or other relatives working in the unit)?

1. Yes

2. No

E4. When did you begin to learn?

1. Under 10

2. Between 10 and 15

3. Between 15 and 20

4. Over 20

E5. Do you allow your child to learn this job?

1. Yes

2. No

F. GENDER GAP

F1. Do you agree with the following statements regarding male and female labor in the village?

	1. Agree	2. Don't agree
a. Man gets job more easily	<input type="checkbox"/>	<input type="checkbox"/>
b. Man's income (earning) is higher	<input type="checkbox"/>	<input type="checkbox"/>
c. Man has more stable job	<input type="checkbox"/>	<input type="checkbox"/>

F2. In general, the female labors working in the production units

1. Unskilled labor

2. Skill labor

3. Mixed

F3. Please indicate the job opportunity for female labor in the village?

1. Easy

2. Fair

3. Difficult

Thank you!

Appendix 3: Diagnostic tests for logistic function

Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	122.729	92.324
SC	125.314	110.419
-2 Log L	120.729	78.324

R-Square 0.3512 Max-rescaled R-Square 0.4959

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	42.4048	6	<.0001
Score	32.4658	6	<.0001
Wald	19.3688	6	0.0036

Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence Limits	
S _i	1.127	0.843	1.506
EXP _i	1.306	1.086	1.570
GENDER _i	2.323	0.664	8.135
AGE _i	1.063	0.958	1.179
FTRAIN _i	1.125	0.280	4.525
INFTRAIN _i	1.104	0.242	5.048

Association of Predicted Probabilities and Observed Responses

Percent Concordant	88.9	Somers' D	0.779
Percent Discordant	11.0	Gamma	0.780
Percent Tied	0.1	Tau-a	0.335
Pairs	2040	c	0.890

Appendix 4:

Diagnostic tests for the earning function

Correlation of Estimates

Variable	Label	Intercept	S	EXP	EXPsq
Intercept	Intercept	1.0000	-0.7454	-0.0201	0.1565
S	S	-0.7454	1.0000	-0.0567	0.0410
EXP	EXP	-0.0201	-0.0567	1.0000	-0.9155
EXPsq	EXPsq	0.1565	0.0410	-0.9155	1.0000
AGE	AGE	-0.5228	0.1426	-0.4993	0.2083
GENDER	GENDER	-0.1396	0.0069	-0.0554	0.1084
FTRAIN	FTRAIN	-0.2747	0.1976	-0.1242	0.0597
INFTRAIN	INFTRAIN	-0.4075	0.1068	-0.0987	0.0071

Variable	Label	AGE	GENDER	FTRAIN	INFTRAIN
Intercept	Intercept	-0.5228	-0.1396	-0.2747	-0.4075
S	S	0.1426	0.0069	0.1976	0.1068
EXP	EXP	-0.4993	-0.0554	-0.1242	-0.0987
EXPsq	EXPsq	0.2083	0.1084	0.0597	0.0071
AGE	AGE	1.0000	-0.0569	0.2123	0.1317
GENDER	GENDER	-0.0569	1.0000	-0.0939	-0.1131
FTRAIN	FTRAIN	0.2123	-0.0939	1.0000	0.1159
INFTRAIN	INFTRAIN	0.1317	-0.1131	0.1159	1.0000

Collinearity Diagnostics

Number	Eigenvalue	Condition Index	-----Proportion of Variation-----			
			Intercept	S	EXP	EXPsq
1	6.29517	1.00000	0.00034293	0.00081451	0.00032015	0.00064403
2	0.81700	2.77582	0.0000267	0.00007736	0.00033821	0.00188
3	0.56161	3.34802	0.00139	0.00503	0.00362	0.03236
4	0.17343	6.02476	0.00512	0.02196	0.0020509	0.00728
5	0.09586	8.10392	0.00574	0.05746	0.00059768	0.00117
6	0.03727	12.99659	0.00153	0.33604	0.00531	0.10256
7	0.01061	24.36078	0.62853	0.34556	0.37996	0.48020
8	0.00905	26.36924	0.35734	0.23307	0.60964	0.37390

Collinearity Diagnostics

Number	-----Proportion of Variation-----			
	AGE	GENDER	FTRAIN	INFTRAIN
1	0.00059906	0.00439	0.00423	0.00239
2	0.00028016	0.00080105	0.84276	0.00047299
3	2.438405E-7	0.06426	0.05213	0.00671
4	0.00174	0.90278	0.00965	0.04560
5	0.01741	0.00147	0.00060538	0.80853
6	0.34776	0.01869	4.746262E-8	0.00013250
7	0.01253	0.00103	0.02003	0.05825
8	0.61968	0.00657	0.07060	0.07793

Test of First and Second Moment Specification

DF	Chi-Square	Pr > ChiSq
31	34.56	0.3014
Durbin-Watson D		1.711
Number of Observations		104
1st Order Autocorrelation		0.138

Check of Normality of Residuals

The UNIVARIATE Procedure
Variable: resid (Residual)

Tests for Normality

Test		--Statistic---		-----p Value-----
Shapiro-Wilk	W	0.968781	Pr < W	0.0147
Kolmogorov-Smirnov	D	0.09344	Pr > D	0.0241
Cramer-von Mises	W-Sq	0.155456	Pr > W-Sq	0.0209
Anderson-Darling	A-Sq	1.012791	Pr > A-Sq	0.0114

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.34860487
99%	0.31552095
95%	0.23084030
90%	0.18054042
75% Q3	0.08671155
50% Median	0.00686001