

Title Is high quality vocational training effective? : Case in Rwanda

Abstract

As the weaknesses of vocational trainings in Sub-Saharan African countries, lack of equipment, poor quality of training, lack of budget, and not matched training to labor market are pointed out. This paper examined how much higher quality vocational training which has cleared the above weaknesses was effective. I picked up one project as a case, high level dress making training which was implemented by Japanese NGO in Rwanda from 2013 to 2016 as the grant assistance for Japanese NGO Projects by Ministry of Foreign Affairs of Japan. The study demonstrated that high level training was effective to some extent. However, the problems such as low earnings, low purchasing power in the market, and industrial structure were also emerged. Implications from the findings are discussed.

Keywords

vocational training, Africa, Rwanda, leadership, motivation, sustainable business, human resource management

Introduction

In Sub-Saharan countries, unemployment is serious problem, and as one of the approaches to solve, a huge budget is spent for educations and vocational trainings. On the other hand, I met many people who could not get a good job even after graduating university or completing vocational training. I was a project director of one high level tailoring training project from 2013 to 2016 in Rwanda. At that time, I belonged to a Japanese NGO which supported women's independence in developing countries through providing dressmaking training. When I was in Rwanda, economic growth continued and Kigali was brisk for construction rush. GNI per capita

has grown steadily in the last 10 years, and it recorded \$ 720 in 2017. While there were rich people who brought their children to school with luxury cars such as land cruiser, BMW, and Mercedes, a lot of people were looking for jobs. Even people who had jobs asked me to hire in my NGO because of no salary raise more than five years and too low salary at current working place.

In Rwanda, foreign aid accounts for nearly 40% of the national budget (IMF Country Report, Aid Flows 2008-18). Foreign aid and its effective use played a critical role for economic growth especially in the perspective of macroeconomic stability. In fact, new vocational training centers were built one after another with the government's initiative, and vocational trainings were promoted strongly. However, still many people were seeking jobs even though they have completed vocational trainings. I had mixed feelings that creating jobs should be the first priority rather than implementing vocational trainings even though I came from Japan as a project director for ODA (Official Development Assistance) tailoring project.

It is not unusual for sub-Saharan countries, economic growth which looks good at first glance is actually dependent on donors. According to Dambisa Moyo's Dead Aid, over the past 50 years more than US \$2 trillion of foreign aid has been transferred from rich countries to poor, with over US \$1 trillion going to Africa alone. In spite of this substantial influx of money, Africa's real per capita income today is actually lower than it was in the 1970s, at approximately US \$1 a day, making it the poorest region in the world.

In Rwanda, the Gini coefficient of 2013/2014 was 0.448 and about 40% of population belonged to poor and 16% to extremely poor. However, in the statistics, the unemployment rate in Rwanda is extremely low, and has remained at around 1% in recent years. According to the Rwanda comprehensive household situation survey report (Household Living Conditions Survey or Enquête Intégrale sur les Conditions de Vie des ménages, hereinafter as EICV) published by National Institute of Statistics Rwanda(NISR), in EICV 4 (2013/2014), working

hours per week are less than 35 hours for about 60% of young working population aged 16 to 30. Most young people were underemployed. The World Bank Report, Rwanda Employment and Jobs Study 2015, has also pointed out that low earnings and widespread underemployment in Rwanda. In 2011, median monthly earnings from all jobs amounted to 18,175RWF, and this amounts to US dollar using the official exchange rate is \$54 using the purchasing power parity-adjusted exchange rate.

Many criticisms of technical education and vocational training in Africa have been specified over the decades such as poor quality, very high cost, training not suited to actual socio economic conditions, disregard of the informal sector's needs, disregard of the labor market and of the high unemployment rate among graduates (Atchoarena & Delluc, 2001). In the report of JICA (Japan International Cooperation Agency), lack of equipment, teacher's/instructor's low motivation due to low salary, lack of latest curriculum are pointed out. Then, my question is if high level vocational training which has cleared above weaknesses, how much it is effective.

Purpose of Research

The purpose of this study is to investigate the effectiveness on employment and income after completing high level vocational training with research question, "How much high quality vocational training is effective?". I analyzed one high level dress making training which was implemented by Japanese NGO in Rwanda as the grant assistance for Japanese NGO Projects by Ministry of Foreign Affairs of Japan. It was the first training with inject of electric industrial sewing machines in Rwanda at that time.

The project was carried out at public vocational training center in Kigali. Normally, the Workforce Development Authority (WDA) Rwanda under the Ministry of Education, Rwanda supervises and implements technical education and vocational training (TVET), and this vocational training center was also under the jurisdiction of the WDA. In 2013, eight vocational

trainings were conducted including welding, vehicle maintenance, electrical work, carpenters, construction, cooking, hairdressing and tailoring. In tailoring course at the vocational training center, about 25 students were learning with pedal sewing machines taught by one full-time tailoring teacher and one part time teacher. According to the principal of the center, teacher's salary of public vocational training center was around 25,000RWF who completed secondary school. Those who has high education background such as university graduate or high skill earned around 60,000RWF.

In August 2013, high level tailoring course was launched as a new independent program separating from the existing tailoring course, and one phase as one year, total 3 phases were implemented. The project team in Rwanda was consisted by one Japanese Project Director, one Japanese dressmaking specialist, 2 local instructors in 1st year, 10 local instructors in 2nd year, and 12 instructors in 3rd year. Thirteen brand new JUKI industrial sewing machines were imported from Singapore JUKI and materials and equipment such as silk cloth and silk threads were sent from Japan. Total budget for three years was about 700,000 US dollars.

The tuition was free for trainees, and as a transportation, 1,000 RWF per day were provided to all trainees which made them possible to join the training from all districts in Kigali. Total capacity was 50 trainees per phase. The training was conducted twice a day. Morning training started from 8AM to 12PM, and afternoon training started from 1PM to 5PM, each with 25 trainees. Total 640 hours of training (4 hours a day x 4 days x 4 weeks x 10 months) was conducted per trainee.

Trainees those who have never touched industrial sewing machine before since pedal sewing machines were still mainstream in Rwanda, started to learn from how to use the machine, basic sewing, and they were expected to acquire steadily higher skills by completing 10 or more items such as shirts, blouses, pants, slacks, one-piece dress, long dress and tailoring jacket with latest equipment and abundant materials under the supervising by high-level and highly

motivated teachers. In Phase 3, as higher learning, pattern making (pattern) practice was also added. In addition to the dress making training, workshops on sewing machine maintenance, marketing, entrepreneur, production unit, and cooperative were held. For 50 seats each year, in first year, 80 people applied, and in second year, 600 people and in third year, 130 people applied.

Research Question and Hypotheses

I set up following research question and hypotheses.

Research Question: *How much high quality vocational training is effective?*

Hypothesis 1. As of six months after completing the training, graduates obtained jobs.

Hypothesis 2. The monthly income exceeds Rwandan's average after completing the training.

Hypothesis 3. The higher the level of skills acquired, the higher the amount of income obtained after completing the training.

Hypothesis 4. Japanese-style strict training improved the attitudes toward work in addition to acquire high level skills.

Methodology

Information and data for three years of the project obtained from website of Ministry of Foreign Affairs of Japan, and the data through the project implementation were analyzed. I also conducted individual face to face interviews in Rwanda in 2018 with 46 graduates out of total 120 graduates. The questions were mainly about previous job, income before joining the training, current job, current income, things changed in their life after completing the training, and leadership differences between Japanese and Rwandan boss. All questions were asked verbally with the help of English and Kinyarwanda translator and most graduates answered in Kinyarwanda freely and verbally. I also visited local market where familiar with local citizens,

and purchased vegetables, fruits and meats in local price to compare with the cost of actual living.

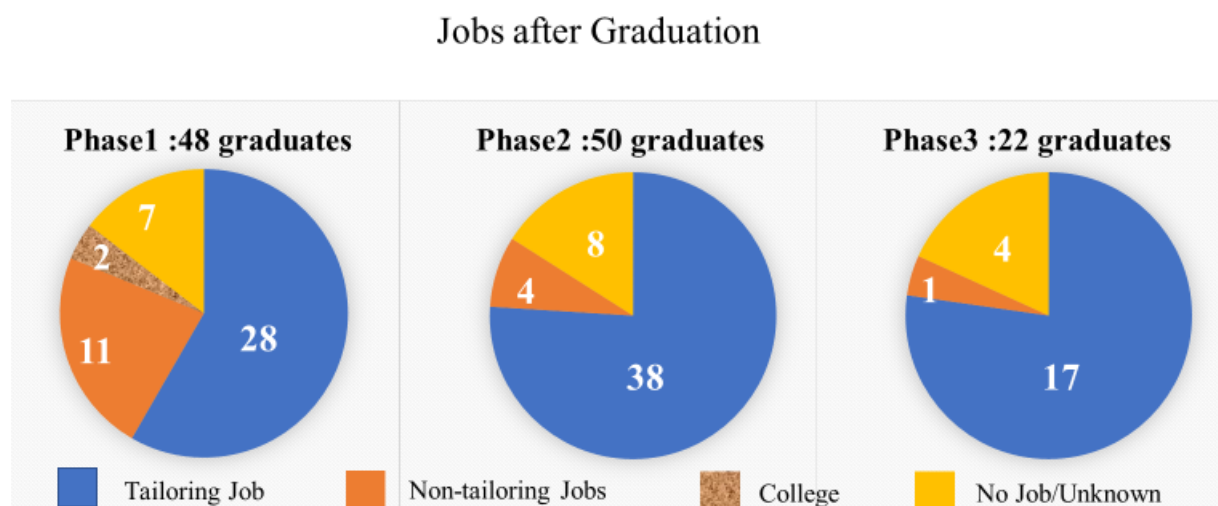
In large-scale quantitative surveys by international organizations, the result tends to be surface such as participants' motivation have risen through vocational training, but in this study, I tried to get closer to their real life as much as possible in order to identify current working and living conditions through one on one interview.

Results

Hypothesis 1. As of six months after completing the training, graduates obtained jobs.

Table1 shows, job status of graduates after completing training. Most graduates obtained jobs either in tailoring or non-tailoring area.

Table1. Jobs after completing the training.



(Phase 1&2 as of 2015, Phase 3 as of 2018)

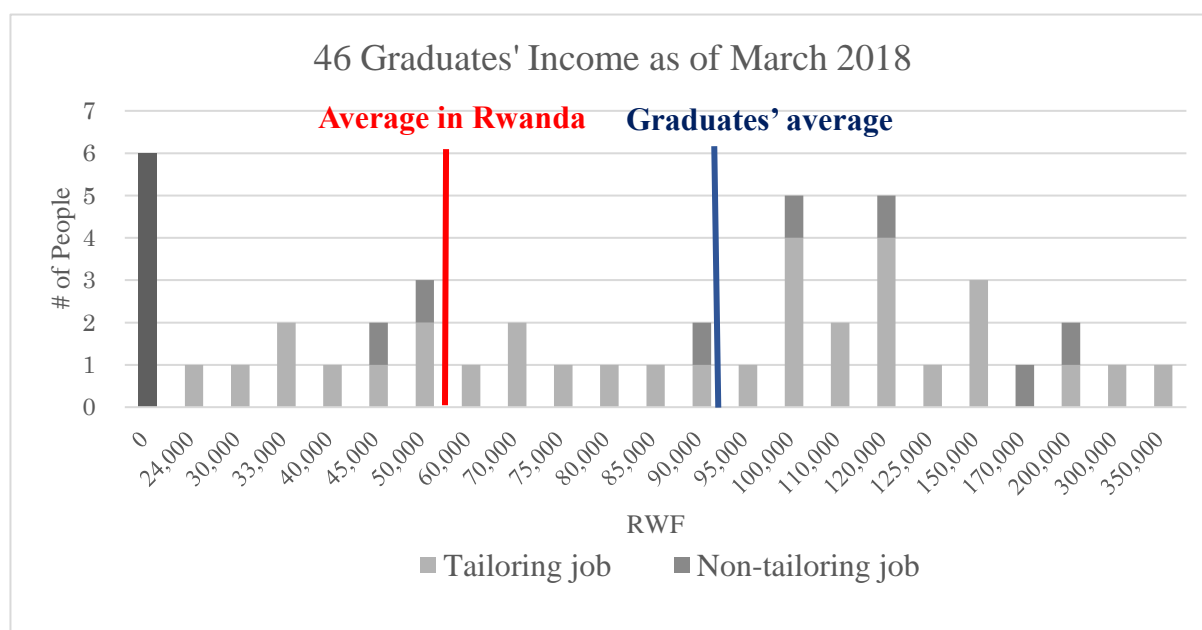
Employment rate including non-tailoring jobs. Phase 1: 81%, Phase 2:84%, Phase 3:82%

For an example, there were total 48 graduates in Phase 1, and 28 obtained tailoring job, 11 non tailoring jobs, 2 went to college, and 7 were no job or unknown. The employment rate including both tailoring and non-tailoring jobs after completing the training is 81% for Phase 1

graduates, 84% for Phase 2 graduates, 82% for Phase 3 graduates. Since it exceeded more than 80% in all phases, it can be said graduates were able to obtain jobs with high probability. On the other hand, Rwandan government recommended strongly to form a cooperative with the assistance of government funds, most graduates such as 68% of Phase 1, and 76% of Phase2 formed and join a new tailoring cooperative as of December 2015, and this situation boosted up the employment rate. However, the business condition of the cooperative has not been going well, the result has to be considered carefully.

Hypothesis 2: The monthly income exceeds Rwandan's average after completing the training.

Table 2. Distribution of Income.

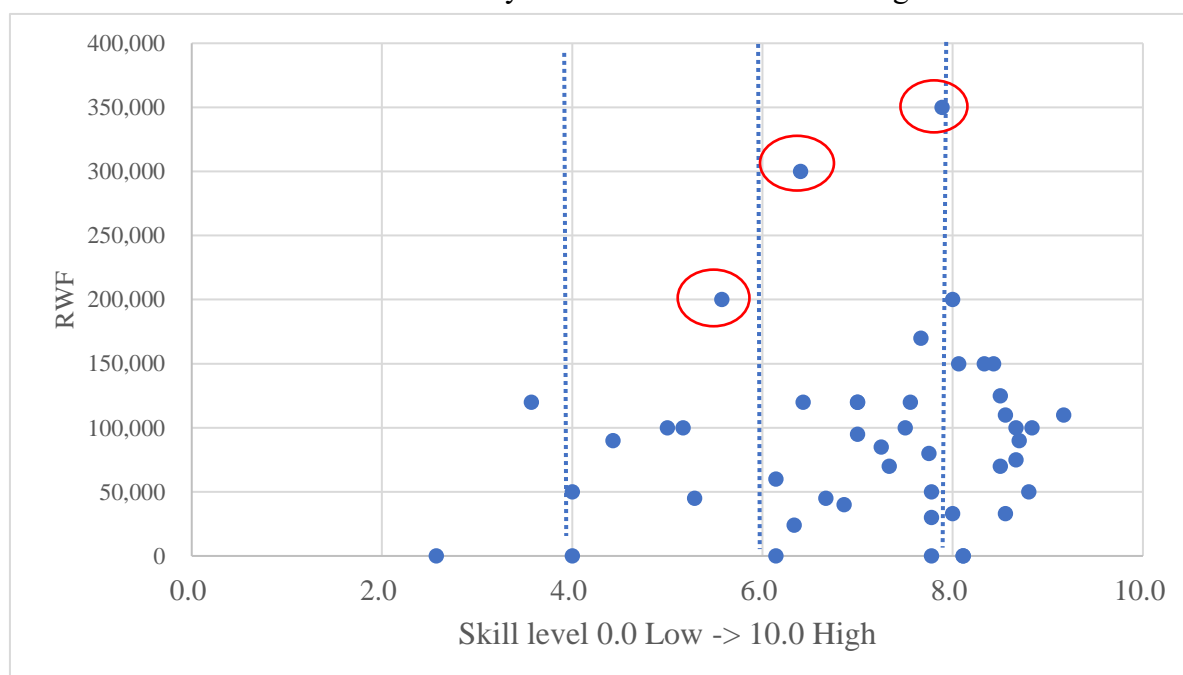


As shown in Table2, the average monthly income of 46 graduates in 2018 was 91,957RWF (around \$107), and exceeded the average in Rwanda, 55, 934RWF (\$66.5) (Statistical Year Book 2017, NISR). According to the World Bank's definition of poverty, \$ 1.90 a day is the international poverty line, and people living below \$ 1.90 are considered extreme poverty.

Rwanda average monthly income $55,934 \text{ RWF} / 841 = \$ 66.5$ (Exchange rate: February 1, 2017 Average Daily $1\text{USD} = 840.8214 \text{ RWF}$). $\$66.5/30 = \2.2 per day. The average monthly salary of graduates, $91,957 \text{ RWF} / 856 = \$ 107.4$ (Exchange rate: March 31, 2018 Average Daily $1\text{USD} = 856.0233 \text{ RWF}$). $107.4/30 = \$ 3.58$ per day. It slightly exceeded the poverty line of $\$1.90$. However, considering actual living cost, more income is necessary. Therefore, though Hypothesis 2 was supported, still this result has to be considered carefully.

Hypothesis 3. The higher the level of skills acquired, the higher the amount of income to be obtained after completing the training.

Table3. Correlation between monthly income and skill level of 46 graduates



As the verification of this hypothesis, the correlation between skill level and monthly income as of March 2018 was analyzed. Table 3 shows, the correlation between monthly income and skill level of all 46 graduates, and is 0.146, only slight correlation. Regarding 34 members out of 46 people working in tailoring area, the correlation between skill level and

Table 4. Correlation between monthly income and skill level of 34 graduates working in tailoring

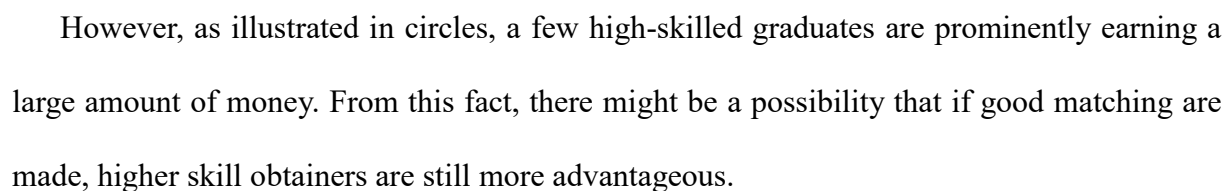
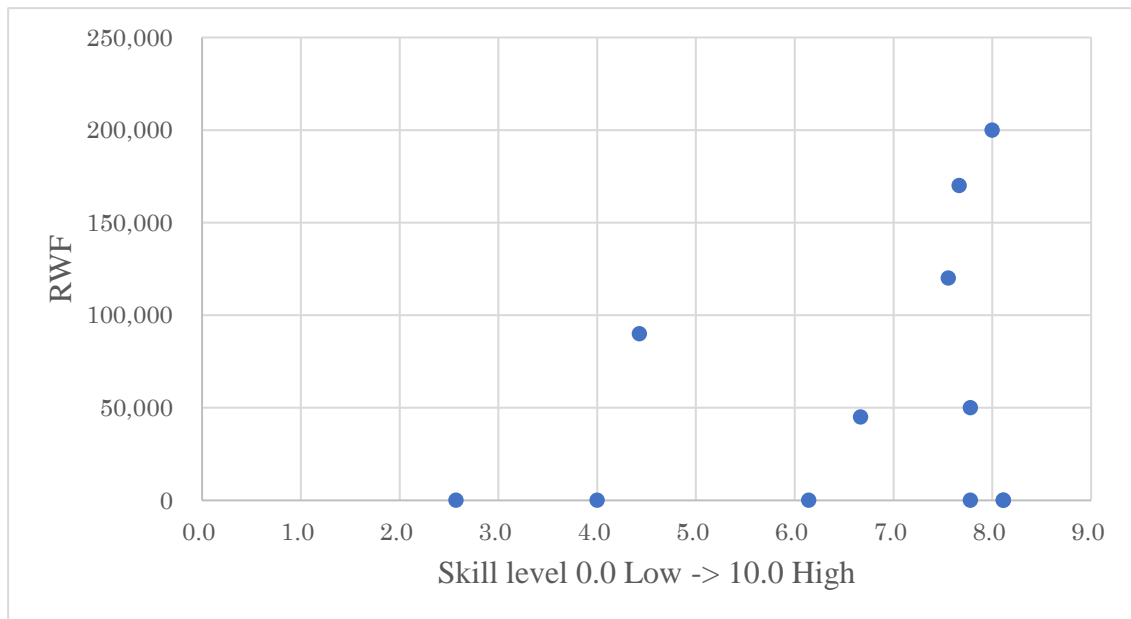


Table 5. Correlation between monthly income and skill level of 12 graduates working in non-tailoring area



This implies that graduates who acquired high level tailoring skill may not be able to obtain high income tailoring jobs.

Hypothesis 4. Japanese-style strict training improved the attitudes toward work in addition to acquire high level skills.

In response to the question “how was the training?” in the interview in 2018, 17 out of 46 answered it was very strict training but it was necessary to change mindset immediately in order to achieve the goals. 17 members answered that most impactful things were being punctual, time management and following the due dates. Regarding leadership differences between Japanese and Rwandan boss, 9 answered Rwandan bosses didn’t care about time very much, and 3 described Rwanda bosses weren't too strict.

During the training, all trainees were required to pay careful attention especially due dates, time management, and quality of the product. If the product quality did not meet the expectation, they had to do it again until they have achieved a required quality. Though such strict training was not normal in Rwanda, focusing on disciplines such as keeping product quality high and follow the due dates had a positive impact on their current work in some extent. However, still

further research would be necessary to find out more related factors.

Discussion

In regard to research question, “how much high quality vocational training is effective?”, the results suggested that high level training was effective to some extent since graduates’ average income exceeded the average in Rwanda. However, in comparison of international poverty line, the graduates’ average income is just slightly higher than the line and it is not enough to improve their life. The correlation between skill level and monthly income was -0.001 regarding graduates who were working in tailoring area, and it showed no correlation. This implies that even higher quality tailoring is continued, it might be difficult to obtain good tailoring job. On the other hand, a few members earned very high income in tailoring, still there would be a possibility to improve life dramatically if good matching was made.

In general, the results showed that it was difficult to obtain a good job with good income in the same area of the training. As some of the reasons, low purchasing power in the market and industrial structure are considered. What I would like to suggest from perspective of vocational training is, first, the institutional design of vocational training for focusing to increase the number of trainees who have completed vocational trainings should be re-considered after deepening the assessment and review. Also if there is an opportunity that enables further skills learnings while earning a fixed income by collaborating with companies rather than searching for low earning jobs in the labor market immediately after completing vocational training, it would be effective. To carry out joint vocational trainings in conjunction with corporate training with companies planning to expand business to Sub Sahara would be a good option, too. If this works, companies could expect to increase productivity and growth by good human resource management. From the perspective of not vocational training, I would like to suggest spending budget in order to create sustainable and good businesses and jobs rather than vocational

trainings. Not preceding vocational trainings, but creating good jobs will be the key to get out from poverty.

Limitations and future study

This study, however, is not without own limitations. First, I interviewed only 46 members out of 120 total graduates. If I was able to conduct hearings from all members, the results may have been changed. Second, this time I only study one case in Rwanda which was training by Japanese NGOs as part of ODA, if I could study in comparison with the outcomes of local vocational trainings implemented by Rwandan government and other organizations, I may have been able to analyze more. There will be many more factors to boost up the motivations which could connect to future work, and I expect more future researches to be conducted in this area.

Conclusion

There was almost no correlation between skill level and income after completing high level tailoring training especially in tailoring jobs. Even though higher level tailoring skills were acquired through high level vocational training, the results showed was it was still difficult to improve life. In other words, even though mastering high level tailoring skills, which would not lead higher income in tailoring area. This situation may be caused by industrial structure and people's purchasing power that they prioritize low price not product quality. On the other hand, there are a few members with higher skill who earn outstanding amount, so it also could be said that obtaining higher skill would be more advantageous for obtaining higher income. It is time to re-consider the design, the concept, and the function of vocational training. Creating sustainable and rewarding jobs that lead to stable life for citizens would be the key for realizing sustainable healthy working environment in Africa. I believe happiness will not be achieved without sustainable jobs which makes people feel satisfied.

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