

Chapter 9

Reducing Poverty by Inventive Entrepreneurship Skills

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9.1 Introduction

The main purpose of this chapter is to build on to the contents of chapter four, through a call for poverty reduction through inventive entrepreneurship training programme. As part of the business of creating an entrepreneurship mind articulated earlier in Chap. 4, Ba Isago University and Kellogg foundation embarked on a three year training programme to equip the target community with inventive entrepreneurship skills training and products derived from skills learned. This chapter is informed by theoretical meanings of invention as innovation for an entrepreneurship mindset, and reports on the practical training workshops to teach the skills of starch batik, fabric paint and tie and dye that were held for the beneficiaries of the Kellogg Foundation Project at Kuru D'Kar Trust in D'Kar. The training workshops ran from time the project started in 2009, to Tuesday the 7th to Thursday the 9th of February 2012. The Kellogg Foundation Project for D'Kar Development Trust facilitated by BA ISAGO University College ran training programs to capacity-build the underprivileged San in D'Kar village from 2009 to 2012. The main objectives of the training workshops were to alleviate poverty and enhance self-sufficiency in the target groups.

Let us begin with the concepts of invention, innovation and entrepreneurship.

9.2 Invention, Innovation and Entrepreneurship

Invention, innovation, and entrepreneurship are words frequently thrown around by politicians, theorists, and entrepreneurs alike to generally describe the act of bringing a product or idea into the world. While easy to confuse, each concept is distinct

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and requires specific skills. When it's time to choose the right people for a business startup, these distinctions are critical.

9.2.1 *Invention*

Let's start with **invention**. *Invention is an intellectual exercise in connecting the dots*. It's the eureka moment when entrepreneurs connect multiple problem statements with existing solutions from other spaces, parallel or unrelated, and come up with a new combination of thought that solves the problem statement that has been discovered. It is a mental event. Often the moment of invention is very clearly defined.

A perfect example is someone who creates a workable idea. An *inventor* is the person who synthesizes the problem statement and solutions into a novel solution that solves some unique problem. This definition of an invention is completely indifferent to what you do with the invention afterwards; you can be an inventor and not have done anything at all other than the mental exercise. This type is common at universities, but innovators exist in university and community environments as well. Inventive thinking forms the foundation to entrepreneurial endeavors. An invention can also develop over a period of time when one is working on something and they slowly realize the little pieces that make the system work better. In the aggregate, one who is an inventor actually changed some essential component of the system and has an invention one can file a patent on.

9.2.2 *Innovation*

Innovation is an ongoing process of getting an invention to a point where it has an application value of some kind. That doesn't happen automatically, because technology is only useful if somebody uses it. Unlike knowledge, technology doesn't have any intrinsic value. If one discovers that some distant object in the sky is a planet, that knowledge has some abstract value for humanity. If the world can find a vaccine that actually cures HIV/AIDS, cancer and other chronic illnesses, that cure doesn't teach anything new about biology, or the human body, and is just a particular mix of stuff that works, then it has no value until it actually cures somebody's chronic AIDS or cancer. All human beings need innovators, because technology needs to be used for it to be of any value.

The boundaries around the innovation process are sloppy, but roughly include all the steps between invention and pre-commercialization, or possibly commercialization. This is the period when you start thinking not just about your idea, but what you need to do to make it work in practical terms. You experiment, you fiddle around, you find out that it doesn't work on current computers, and you adjust it in some way to make it practically realizable. In the act of innovation, you might also

invent new things. But equally important, you are going to generate a lot of practical know-how. This is where the bulk of value in a technology startup is created. This know-how is often hard to characterize, because it is the embedded knowledge in the heads of your people, but it is of enormous value to any acquirer.

Startups are sometimes the point of invention, but more often than not they are created after the invention to act as innovation engines.

9.2.3 Entrepreneurship

The concept of **entrepreneurship** is separate from this. Entrepreneurship is about driving innovation in a constrained environment (e.g. limited money or time). Often this happens in a startup, but it's perfectly possible to be an entrepreneur inside a large corporation if the constraints are in place. An entrepreneur's job is not just to bring the technology to market, or to the commercialization stage; *the job of the entrepreneur is to create and maintain the environment that allows innovation to occur* (people, money, goals, etc.). Unlike single person corporations or partnerships that do not have an inherent constraint, opportunity, or even desire to scale (doctors, lawyers, consultants, and other freelancers), entrepreneurs engage in an aggressive pursuit of scale under conditions of risk.

When we look at these definitions together, we learn something critical about the people needed for technology transfer. First, you do not need an inventor as the CTO in your startup. This is a mistake I see a lot of startups make. You need access to the inventor to get clarity on their thoughts, but that can take the form of a consultancy on an as-needed basis. What you really need is an *innovator* in your startup's technical leadership role. This is someone who has enough understanding of the technology and commercialization process to drive the technology from invention to commercial application. If the inventor does not have the skills or know-how to be an innovator, your startup company will die (this is in my experience the number 1 reason for failure in startups led by university professors).

On top of this there is a need an entrepreneur who can create the environment in which the inventor can thrive (people, dollars, money, and infrastructure). And while your innovator and entrepreneur might be one and the same person, it is important to keep in mind that both roles need to be filled.

An entrepreneur can be someone who "owns a business, someone who started a lot of companies, and someone who has possession of an expertise, or venture, and assumes significant accountability for the inherent risks and the outcomes....A person who undertakes to organize, operates, manage and assume the risk of a business venture is called an entrepreneur." (Wikipedia.).

"An inventor is a person who creates, or discovers a radically new method, form, device or other useful means that does not exist before...."

Below is a contrast table on the entrepreneurs and the inventor.

Entrepreneurs	Inventors
12. Focus on financial return	
Entrepreneurs focus a lot on the ultimate financial return as it is the driving force	Inventors often make a small fortune out of a big one, as they focus on discovering breakthroughs without regard for their ultimate financial return
13. Control	
The control experienced by the entrepreneur is unparalleled if he himself is the inventor	He can make changes as and when thinks fit. If the inventor is not entrepreneur himself, he has to surrender a lot of control by licensing it to some entrepreneurial firm
14. Dependence on research	
They rely more on extensive amount of research they conduct rather than intuition	They rely more heavily on “gut” feelings or intuition than on past experience
15. Locus of Control	
According to researchers, mostly introverts come out to be good entrepreneurs	Extroversion is one of the strongest personality traits of inventors
16. Life goal	
An entrepreneur’s life goal is to a substantial business	An inventor’s life goal is to create something new
17. Preferred work mode	
Most of the entrepreneurs are group oriented. They like to work in teams to make their idea a practical success	An inventor prefers to work individually
18. Role of research	
Research is a necessary evil for the entrepreneur	For an inventor research is an enjoyable avocation
19. Recognition	
Usually entrepreneurs gain team recognition	Inventors enjoy personal recognition
20. Financial goal	
Their financial goal is to fund future retirements	Their financial goal is to fund future inventions
21. Core competency	
Incremental improvements’ is the core competency of an entrepreneur	Discontinuous inventions’ is the core competency of an inventor
22. Preference	
They work to solve customers’ problems	Their preference is to solve complex problems
23. Dogmatism	
Dogmatism level is Low among entrepreneurs	High level of dogmatism is seen in inventors
24. Social skills	
Entrepreneurs possess moderate to extensive social skills	Social skills of an inventor are limited

Source: Adapted from Ralph Hamann, Stu Woolman and Courtenay Sprague (Eds.,) (u.d....) The Business of Sustainable Development in Africa: Human Rights, Partnerships, Alternative Business Models

By looking at the differences of entrepreneur and inventor, it is clear that the two terms are not synonyms at all. An inventor develops a new product or service which does not exist before and may or may not bring it to the market whereas an entrepreneur takes the risk to bring a product to market with the hope of making a profit. It is not necessary for an inventor to be an entrepreneur. Similarly an entrepreneur may or may not be an inventor. The list of fortunate people who are successful in both roles is very short.

A Fabric paint project existed in D'Kar for the past 10 years under Kuru D'Kar Trust. When research for this workshops was done there were only two women left in the project. It was a dwindling project and needed revision, new skills and capacity.

This chapter, informed by the training report and onsite activities of the training programme, covers the first in three workshops to train the target group (underprivileged San in D'Kar) in the practical skills of starch batik, fabric painting and tie and dye.

The first three workshops were conducted to train the target group (underprivileged San in D'Kar) in the practical skills of starch batik, fabric painting and tie and dye. This first workshop was to teach starch batik and fabric painting. The workshop stretched over three days:

All facilities were in place in Ghanzi where training workshops took place. The two bedrooms in the coordinators' house still needed linen, blankets, and bed covers, at the time of the training in February 2012. The old bed linen and curtains were worn out. The total cost of the bedding was estimated to cost about P3,000. There was need for air conditioners for the bedroom because it is extremely hot at night. There was also need a part time cleaner for the office. The training venue had a landline functioning both for fax and telephone, indicating that there were changes taking place. Training workshop contents of proceedings included presentations by experts, and workshop evaluation.

It was expected from the D'Kar training that the trainees would have characteristics of both to rid themselves of poverty. The training therefore covered materials relevant to both the entrepreneur and the inventors. The Invention Experience is a guided tour through the process of invention and entrepreneurship. In our hands-on, museum-based events, students are able to test their own skills at creating inventions that solve a wide array of challenging problems. For the D'Kar training programme, each event followed the **Invention Challenge** process, which has been designed with students, teachers, and museum professionals and is built upon the successful Startup Experience workshops. The Invention Challenge is a 5 step process guiding students through the stages of creating their own invention. By the end of each event, learners were expected to have developed a prototype for their very own solution to one of the challenges posed during their lives in D'Kar.

But the Invention Experience doesn't end after participating in an event. Trainers through Ba Isago were committed to creating a **long-term learning environment** and helping students pursue their own entrepreneurial talents and starting up their businesses for long term poverty eradication.

9.3 Training on Entrepreneurship skills

9.3.1 Workshop Methodology

Since this workshop involved the learning of a practical skill, participants had to take part and learn by practically doing what is needed to produce a cloth. This involved:

- Drawing a design
- Starch paste mixing and applying
- Paint mixing
- Paste removing and heat fixing
- overlapping of colours
- Paint applying techniques.

9.3.2 Presentation 1: Design

Having gone through the design with participants, the consultant started the training with an explanation of how starch batik work through blocking out the paint with a starch paste (bread flour). Each participant received a piece of white calico and was told to draw some designs on it, keeping in mind the technique explained. Samples of possible designs were highlighted from the art of the Kuru artists that were hanging on the walls of the studio. Each participant did a design in chalk on their cloths.

9.3.3 Presentation 2: Starch Mixing and Applying

Mrs. Brown and Selina Morris, one of the remaining participants of the existing Fabric Paint project, showed and explained the mixing of the starch paste to the correct consistency. Each participant got the chance to help mix and feel the consistency of the paste. They were showed how it is applied to the cloths by using cake decorating tubes or tomato sauce bottles with a thin tube through which the paste is pursed.

Each participant filled a bottle with paste and the applied it to the outlines of their designs.



Applying the starch paste to the first cloths

9.3.4 Presentation 3: Mixing Pigments and Emulsion to Make Paint

Mrs. Brown explained the role of pigments and emulsion in the paints. With the help of Selina Morris and Tix'ae, from the existing fabric paint project, each participant got a chance to help mix a colour. The participants were then shown how to apply the colour to the cloths once the paste lines were dry. The cloths were painted in different colours and left to dry.



Applying the first colour to the cloths



More colours are added

9.4 DAY 2: Presentations

9.4.1 *Presentation 4: Removing of Paste and Heat Fixing of Paint*

The participants were shown how to remove the flour paste from their cloths to leave white lines where it was. They were taught to iron the cloths to make sure that the paint is fixed and would not wash out. Then they had to wash out all remains of the flour paste and iron the cloth again for it to be ready for presentation.



Removing the starch paste from the first cloths

9.4.2 Presentation 5: Overlapping Colours and Other Paint Techniques.

Each participant were given another cloth and asked to do another design and to apply the paste to the outlines. They were shown how to use different techniques to apply the paste such as painting it on with a brush or “combing” it with cardboard that is cut out like a comb. When dry, they painted the first colour to their cloths.

While the paste dried the trainer explained that only two colours will be used on this cloth. Each participant had to choose two colours. They were then showed how to make a sample cloth where they will test the colours. Each participant made a square on the cloth with the first colour chosen. The trainer further showed them how to scratch patterns in the wet paint with the end of a brush or do imprints of different objects in the wet paint. They then had to apply the second colour chosen over the first to see the result. Again they could scratch patterns and imprints into the second colour. If not satisfied with the colour they have chosen, they could try another colour. In this way participants learned firsthand the results of different colours over each other.

The participants then applied a second layer of paste in all areas where they wanted the first colour to stay as it is. It was left to dry till the next day.



Making the sample cloth

9.5 DAY 3: Presentations

- a. The facilitator spent time with each participant to discuss their designs and encourage them to try different techniques.
- b. The second layer of paint was applied to the cloths and extra patterns scratched/printed into it. When dried the paste lines were removed, the cloth ironed and washed and ironed again.
- c. Cloths were placed alongside each other and participants had to highlight the differences between the two and how the technique could develop.
- d. Participants who had finished process (c) started working on one large cloth in the subsequent workshop.

9.6 Results of the Training Workshop

The training ran for the planned duration of three (3) days with eleven participants. The training topics were all covered as scheduled: Starch batik and fabric paint introduction, design drawing, starch paste mixing and applying, paint mixing, paste removing and heat fixing, overlapping of colours and paint techniques. Each participant finished two cloths in the two different techniques taught.

9.6.1 Results of Workshop- Evaluations

Generally all participants were very happy with the training as judged from the feedback from participants at the end of the workshop. All participants finished two cloths. They were all very proud of what they achieved.

Most participants arrived at eight in the morning eager to continue and were willing to continue after five.

9.6.2 Evaluation Comments

In addition to the above, a few participants gave further comments and were captured as follows:

- “I did not know I can do it and am happy to see what I have done”.
- “The workshop was well presented and they understood all aspects of it”.
- “We have learned a lot”.
- “The space was small”.



The first cloths were finished

9.7 Workshop TWO

All the training workshops were conducted through practical work, which allowed most participants to take part in the group activities. The trainer demonstrated mastery of her subject because she is the Coordinator of Art and Crafts Department of KURU, and had extensive contacts with business in this industry. The sessions were lively because the San in D'kar have a keen interest in this industry and have been part of the tourism opportunities in Botswana through their crafts and traditional dances, which draw large crowds of tourists during the KURU festival.

9.7.1 Training Materials

The consultant produced the module supporting her training materials and this was being given to the participants for future use in their businesses. A copy of the module was attached for all participants. He also used flip charts extensively during his presentation.

9.7.2 Stationery

All the stationery necessary for the workshop was available. For photocopying of training materials used by trainers, I have made arrangements with D'kar Trust to use their photocopier and then send the invoice to project secretary at the end of the month. D'Kar Trust Starch Batik and Fabric painting workshop: 07th, 08th 09th February 2012 included mainly women—12 in all. At the end of the training, the participants evaluated the timing of the workshop, venue, food and refreshments, learning from fellow participants, training materials and handouts, trainer, exercises and training methods.

A second phase of training took place on Small Business Management as part of the D'kar Capacity Building project. This took place on Wednesday 11rd to Friday 13th August 2010. The course material used for this training was borrowed from the already made manual used by Boston Business College, a Business unit of BA ISAGO University College. Also included in the training workshop were; Structured Learning Exercises, Simulations, Group Discussions, Class Discussions and Lectures. Having started on the entrepreneurial skill, this module therefore takes learners to another level of managing businesses. This is with the assumption that the Business Ideas raised during the previous week's workshop would be adopted and taken of the ground. How do they go about running these Businesses?

The opening was graced with motivational talks and happiness about the improved attendance. The training covered preparation of business ideas, marketing, purchasing and costing, and book keeping.

In addition to entrepreneurship skills of inventing products, participants were also taught how to market their products, and manage the markets. Marketing was defined as a human activity to satisfy need and wants.

In other words Marketing is what entrepreneurs do to attract and maintain customers to their business. It involves identifying customers' needs and trying to satisfy them. The big tasks of marketing officers and agents are; Finding and Persuading Customer to buy

Creating continuous interest of customer in products; and all activities done to identify customer needs and make strategies to satisfy them. Effective marketing is not all about describing the product BUT is to do with identifying the right perceptions and aspirations of the customers then try to address them with supply of your product.

In order to fully understand what marketing is, there is a need to identify and explain key words in the definitions of Marketing and relate them to the BUSINESS we want to do:

9.7.3 Key Aspects of Marketing

Effective marketing is achieved by the following *Ps* of Marketing:

9.7.4 Product

This is the good (tangible) or service (intangible) products produced by a business for sale to the public. Good Products must be of the right Place, Price, People and Processes.

9.7.5 Place

This is the area where you operate or where you are selling your products or ways in which your customers will get your products including communication and transport networks.

List the PLACE where and how you will provide and meet your customers:

Characteristics of a good place:

- Clean/Neat
- Accessible
- Nearer to customers
- Safe
- Highly Acceptable.

9.7.6 Price

This is the amount of money your customers will pay for your products. All businesses sell at a profit hence your price must include reasonable profit:

$$COST + PROFIT = SELLING PRICE$$

Good Price Must:

- Take into account all costs
- Put in reasonable profit affordable by most customers
- Attractive to customers

Estimate your costs and your profit in order to come up with the price you will charge customers:

9.7.7 People

These are the workers and other stakeholder in the business who will meet and service the customers. These people must be at their best in terms of:

- Appealing Dressing
- Welcoming Speech
- Caring for customers
- Helping Customers
- Providing Friendly atmosphere

List the people who will serve customers in your business and show how they will present themselves:

9.7.8 Processes

These are a combination of policies and procedures, as well as production systems and approval stages in service delivery.

They also include the Packaging of the products and services.

This may include the following:

- Arrangement of the shop
- Machinery and speed of service
- Selling process e.g. filling in of forms
- User friendly guides to service delivery
- After sale support e.g. packaging

List PROCESSES you will follow in your business:

9.8 Conclusions

The workshop was a success and succeeded to achieve its invention objectives. The participants' level of participation and comprehension was good. The cloths they had finished showed that they understood the techniques that were taught and were able to apply them. As entrepreneurs they managed to invent a cloth that was not there before. It can be concluded that the training in D'Kar gave the learners an opportunity not only to invent but to develop into good entrepreneurs for poverty eradication.

9.9 Recommendations

Based on the training sessions, the consultant recommended that:

- (i) Participants should be assisted to form a project, to manage it and to market the products they produce. Since most of the participants were illiterate it would be good if they could use the practical skills they have learnt here in a group rather than to try to start individual projects, where they will need a lot of management skills.
- (ii) They should also be assisted to produce by products from the cloths they produce. Examples include tablecloths, curtains, place mats, bedspreads, bags, clothes etc.
- (iii) Participants must ensure that they use all assistance available to them to build sound business plans. They could visit offices such as LEA, Department of Youth and Culture, and CEDA for assistance in writing sound business plans.
- (iv) Participants must make out clear personal objectives which they would wish to achieve from this workshop. Thus they ought to make maximum use of the training and other opportunities they had to move forward.

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