

## Vocational Skills and Knowledge Systems in Zimbabwe Informal Metal Industries: Demystifying Perceptions on Informal Training Systems

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### ABSTRACT

*The study sought to establish the source of skills and knowledge systems as well as training strategies adopted in the informal industry. Mbare-Magaba informal industry situated to the western periphery of the city of Harare in Zimbabwe was the geographical delimitation of the study. The study adopted two main approaches to data gathering and therefore had a fair balance between qualitative and quantitative methods. Although Mbare-Magaba industry has informal players of diverse trades, this study focused on the informal metal industry with a total population of 1500. Using stratified random sampling a sample of 170 participants was established. Questionnaires were self-administered and data were processed using the SPSS. Qualitative data were sorted into emerging themes. The study established that the informal sector has decentralised and democratised the training and therefore the skill base of the industry. Consequently this has caused a vibrant group of small black capitalist players to emerge with a unique culture of recruitment, training and organisation of production. In this context the 'hands on' approach through the informal apprenticeship training system emerged as the most dominant teaching strategy. Also what we see in the informal industry is a perpetuation of social networks and social responsibilities where parents are expected to pass their vocational skills to their children. The study also explored different ramifications of the context in which technical skills are acquired in the informal sector.*

**Keywords:** Informal economics, Traditional apprenticeship

### INTRODUCTION

The study explored the source of skills and knowledge systems used in the informal metal industry in Zimbabwe. Its thrust was to establish training strategies and methods in the informal industry so that they can be utilised in the resuscitation of economic development. It is increasingly acknowledged that people's skills and capabilities, and investment in skill training are critical for growth and development. Thus the crucial role of skill training is promoting employability, enhancing productivity and ultimately poverty reduction. In this regard it becomes of critical importance to understand the sociological ramifications of the context in which vocational skills are acquired in the informal sector.

Most economies in Africa as well as some parts of Asia have either collapsed or declined as a result of adopting Structural Adjustment Programmes (SAPS) (Mwanza, 1992). These SAPS which are informed by neoliberal policies tend to adopt a 'one size fits all' approach to address the economic crises in different countries. The failure by neoliberal policies to carry out a situational or contextual analysis led to the reversal of economic gains by the respective countries. The proliferation of informal industries in Zimbabwe tends to be a consequence of the Enhanced Structural Adjustment Programme (ESAP).

The adoption of ESAP coupled with the economic sanctions imposed by the West on Zimbabwe culminated in most companies either downsizing or closing shop (Sadomba, 2011). Consequently most people lost their jobs. As a coping strategy most people in urban centres resorted to the informal sector for self employment. The sudden growth of the of the informal industry was also influenced by the massive land occupations in farms in 2002 which had ripple effects in urban centres where people had to grab whatever free space available to engage in various entrepreneurial ventures (Sadomba, 2011). In essence the industry reconfigured into small scale trading and manufacturing sectors. One can observe that metal hardwares of high quality and sophisticated metal technology are being produced in the informal industries. It is against this backdrop that the study sought to explore the source of skills and knowledge as well as teaching strategies adopted in the informal industry.

### **STATEMENT OF THE PROBLEM**

Informal industries seem to be producing metal hardwares of high quality and sophisticated technology. The puzzling question that boggles one's mind is; what could be the source of skills and knowledge used in the informal industry? It is thus the purpose of this research study to explore the characterisation of the informal industry and the ways and extent to which the technical skills are diffused to prospective metal products manufacturers.

### **RESEARCH OBJECTIVES**

This study hinges on the following objectives.

1. To explore the characterisation of the informal metal industry.
2. To determine sources of technical skills and knowledge systems used in the informal metal industry.
3. To identify methods of diffusing technical skills to other prospective metal workers in the informal industry.

### **DELIMITATION OF THE STUDY**

The study focused on Mbare-Magaba informal industry situated to the western periphery of the city of Harare, Zimbabwe. The city and the informal industry are separated by the railway line 'fly over' and the industry stretches for more than a kilometre approaching Mbare Musika bus terminus. This informal industry comprises informal traders of hardware's, those specialising in carpentry and metal products. This study focused on those involved in manufacturing metal hardware's and machines as well as their consumers.

### **CONCEPTUAL FRAMEWORK**

According to Marx in Sanderson (1988) society consists of two main economic classes (the bourgeoisie and proletariat) with differential ownership of the Means Of Production (MOP). The proletariat is those subjected to landlessness, poverty and gross exploitation of labour. These are the people we find in the informal industry fighting poverty through self employment. The factories and companies constitute the formal industry which is wholly owned and controlled by the bourgeoisie. The unequal distribution of the MOP and exploitation leads to class conflict and class struggle in society (Marx in Schaefer, 2004). The class struggle over ownership of scarce resources in Zimbabwe especially land attracted the western imposed sanctions which culminated in the demise of the formal industry. Consequently the industry reconfigured into small scale informal industries owned and controlled by the working class.

According to Althusser in Giddens (2001) education in a capitalist society is an ideological state apparatus. In other words education is a propagation of the ruling class to maintain their dominace. Thus technical skill training in a capitalist society is meant to serve the interests of the ruling class. The working classes are trained in skills required for employment in the formal industry. In this context the role of education in society is social or cultural reproduction (Bourdieu, Bowles and Gintis in Sanderson, 1988). However, Freire who can be regarded as a neo-marxist was concerned with pedagogical alternatives (Njobe, 1990). To Freire, the pedagogy of the oppressed becomes a liberating force. It can thus be argued that the traditional apprenticeship training system adopted in the informal industry is an alternative to the formal vocational training system.

## **LITERATURE REVIEW**

### **The Emergence of the Informal Industry**

The opening of the Zimbabwean market through the liberalisation agenda of ESAP made it difficult for local producers to compete with cheap imports (Kanyenze, Chitambara and Martens, 2011). Thus most local companies either downsized or closed down, which led to massive job losses and redundancy in the manufacturing sector. Employment levels declined sharply particularly in 2000 at the height of massive land occupations (Sadomba, 2011). The massive land occupations triggered the imposition of sanctions by the west in protest against the land occupations. The result was that more companies closed shop and more people became unemployed. Also the massive land occupation had ripple effects in urban centres where people had to grab whatever free council land for informal trading, manufacturing and housing (Sadomba, 2011).

The adoption of ESAP principles and the massive land occupations created a conducive environment for the growth and development of the informal industry. According to Mwanza (1992) most economies in Africa have collapsed as a result of adopting structural adjustment programmes (SAPs). The adoption of SAPs culminated in deindustrialisation and ultimately gross unemployment. A research study by Kanyenze et al (2011) reveals that company closures increased significantly owing to the harsh economic environment. "A total of 838 companies closed down between 2000 and 2004" (Kanyenze et al, 2011:141). As many industries closed shop as a result of ESAP and sanctions, the informal sector emerged as substitute because manufacturing in any one given country must not cease since it is the central driver of growth and development. According to Kambawa (2002), the CZI survey of 1997 found out that 60% of the working adults have resorted to informal employment as a result of the economic crisis. The survey by the CZI also shows that 1 100 companies closed down because of viability challenges. In this regard the economy of Zimbabwe tends to hinge on the informal industry.

## **RESEARCH METHODOLOGY**

In this study a survey was used to gather data from Mbare-Magaba informal metal industry manufacturers, informal apprentices as well as consumers of informal metal industry products. Schutt (2009) observes that a survey is an efficient method for systematically collecting data from a broad spectrum of individuals and social settings. Questionnaires, interviews and non participant observation were the research methods employed in this survey to gather the empirical data.

### **Population and Sampling Procedures**

The Mbare-Magaba informal metal industry consists of 500 metal workshops with an average of 3 workers. This makes the population of the study approximately 1500. The stratified

random sampling procedure was used as the sampling frame was divided into groups in order to ensure that the sample is representative (MacMillan and Schumacher, 2010). The sampling frame was divided into the following categories: manufacturers of (i) Household wares (ii) Building materials and equipment (iii) Farming implements (iv) Processing machines. The sample size consisted of 170 participants.

### ***Questionnaire***

The self administered questionnaire helped in collecting large quantities of data from both the apprentices and trainers. Questionnaires were preferred to cover a considerable number of people over a relatively short period of time (Leedy, 1993).

### ***In-depth Interview***

Interviews were carried out with the informal industry manufacturers and consumers of the metal hardwares from the informal industry. Data from the interviews were meant to complement data from questionnaires as interview data can be used to extract simple factual informal from people (Leedy, 1993). Thus the factual information sought focused on background to joining the informal industry, source of skills, methods of training as well as marketing strategies, costing and pricing skills. On consumers the interview sought to establish information on their perceptions on the quality and standards of products from the informal metal industry.

### ***Observation***

The main aim of observation was to cross check the validity and consistence of data from interviews and questionnaires (Gall, Borg and Gall, 2007). The observation grid focused on tool handling skills, designing articles, measuring skills, methods of instruction, quality of goods produced, quantity of goods, storing materials, disposing finished products as well as the working space and environment.

## **DISCUSSION OF FINDINGS**

### **Characterisation of the Informal Industry**

The characterisation of the informal industry tends to be diverse in its organisation, class, gender and age composition. This reorganisation of industry seems to have taken into consideration the African traditional economic organisation and production on the basis of kin and family units. Most importantly the traditional methods of passing vocational skills to the new generation in the form of traditional apprenticeship seem to prevail in this new economic dispensation of the Informal Industry.

Evidence from the empirical data of the research illustrates that most people joined the informal industry after Zimbabwe adopted neoliberal policies which saw many people being retrenched as companies' closed shop. Contrary to what many academics have argued, these company closures constitute the process in the reconfiguration of industry Sadomba (2011) has argued. However Sadomba did not go further to analyse the internal organisation and social networks revealed in this study. More generally the demise of the industry gave the impetus to the growth of the informal industry, with smaller units of production and a wider base for recruitment. It should be appreciated that the working class or retrenched of the formal industry resorted to alternative employment in the informal industry as a copying strategy and this can be interpreted as human agency. With this change, the education and skills development has also taken a revolutionary trajectory. The development informal industry can thus be interpreted as a social reaction to harsh economic conditions of neoliberal policies.

### **Class Dynamics of the Informal Industry**

Evidence from the empirical data of this research indicates that the people who came into the informal industry hail from the working class background. According to the Marxist theory, the working class is composed of people who do not own means of production and only have their labour power to sell to the capitalists. Between 1990 and 2010 the formal industry of Zimbabwe, owned by big capitalist establishments, began to shrink rapidly. This explains the sudden growth of the informal sector as the workers, who had no capital were retrenched and found themselves in the streets unemployed. Findings of this research illustrate that most of the informal producers of the metal products (74%) joined the industry during this period as a consequence of ESAP. Therefore Zimbabwe's informal sector can be characterised as working class, based transforming into small capitals as they now own their own small machines, tools and production materials. They also hire labour.

The nature, the methods of recruitment, and the quality of labour hired differ in many respects with the formal industry. Recruitment in the informal sector tends to depend very much on the social networks formed with employment based on personal relations as relatives and friends as opposed to bureaucratic and impersonal standards of educational qualifications which Max Weber described (Sanderson, 1988). This therefore argues a revolutionary transformation to Zimbabwe's industry with sudden dislocation of industrial norms that govern entry to the metal manufacturing sector. Although there are some who possess formal qualifications accepted in the formal industry, they constitute only 4%. The rest are informally trained. It is important to note that social relations in the Zimbabwean society have reconstituted, the black elite has assumed the position of power and dominance.

As the ruling class continues with the antics of exploitation and dominance employed by the settler capital, the struggle and conflict between the two classes seems endless. One such typical example of class struggle is an operation code named "Murambatsvina" or clean up initiated by the ruling class which destroyed most of the infrastructure of the informal industry in 2005 (Tibaijuka, 2005). However, empirical data of this study indicates that after this sinister operation, the informal industry reemerged more robust and vibrant with diverse trades. This clearly shows the agency and resilience of the working class who are determined to use their skills for self empowerment.

### **Gender and Age Dynamics in the Informal Industry**

The reconfiguration of industry brought with it an end to gender discrimination in the public sphere especially in the world of work. Prior to the reconfiguration of industry women used to be confined in the domestic sphere performing domestic chores. The findings reveal that 3% of the manufacturers in the informal metal industry are actually women. As a result of gender role socialisation, most women engage in informal trading within the informal industry while most men are into manufacturing. Moreover all informal apprentices in the informal industry were found to be male. This implies that, although the industry has reconstituted in terms of gender, the culturally embedded gender stereotypical roles tend to permeate the informal industry. In this regard, the acquisition of skills in the informal industry tends to be informed by the ideology of traditional education. Traditional education emphasises a clear dichotomy between feminine skills and masculine skills which are acquired as people work (Fafunwa and Aisuku, 1992). However, the fact that women now have a place in the public sphere is clear testimony that patriarchal ideology is gradually losing its grip in the Zimbabwean society. Thus the reconstruction of the employment structure in terms of gender points to a transforming social structure.

The findings of the study also show that most trainees (64%) are below the age of thirty. This is generally a young generation who has failed to attain tertiary education or vocational training because of their working class background. However the energetic generation is likely to contribute to the vibrancy of the informal industry.

### **The Organisation of the Informal Industry**

The Mbare-Magaba informal metal industry is manned by trained and experienced welders, fitters and turners, boilermakers and engineers. Some of them are actually classified artisans. This implies that the metal hardwares and machinery produced in this sector are of high standard and quality. The evidence from the empirical data shows that the informal metal industry has the capacity to supply the local market. In other words this new economic dispensation has the capacity to spurn the economy of Zimbabwe to greater heights if given financial support. The informal industry is portioned into small scale production units managed on a family basis. Zimbabwe may borrow some lessons from the East Asian economic miracle which led to the industrialisation of the Asian Tigers (Francks, 2000). The Asian Tigers relied on small scale enterprises which were heavily protected and funded by the state. Similarly, the small scale production units in the informal industry can be supported to regenerate the economy of Zimbabwe. Moreso, the training of skills in these small scale manufacturing industries tends to be intensive under the mentorship of trained and qualified artisans.

### **Education Level of the Manufacturers**

Findings of this study show that most manufacturers hail from the working class background. This explains why most of them do not have tertiary education. Most working class parents fail to pay fees in vocational training colleges and universities because they are paid wages which are not sustainable (Marx in Schaefer, 2004). However empirical evidence also shows that all the manufacturers in the informal metal industry had gone through primary education and most of them went up to secondary level. If we also look at the age range of these manufacturers, one can infer that these are some of the beneficiaries of the welfare policies adopted by the Zimbabwean government after gaining independence. As a welfare state, Zimbabwe adopted policies such as education for all which emphasised free and compulsory primary education (Zvobgo, 1995). To proceed to tertiary education was a mammoth task for most working class children because coincidentally the state introduced neoliberal policies under the banner of ESAP which saw the government abandoning the Welfare agenda. It can be argued that because of their working class background most informal industry manufacturers resorted to the informal training system where they acquired vocational skills for their respective trades. It is also important to understand that the prospective apprenticeship trainees' education level is essential in mastering skills during the training process.

### **Source of Skills and Knowledge in the Informal Industry**

The philosophy behind socialist ideology was Education with Production (EWP) whose thrust was to combine education with productive work (Nyerere, 1979). It can be observed that the concept of EWP fits very well with the new economic dispensation of the informal industry where skill training and production concurrently take place. For the informal industry manufacturers, it should be acknowledged that the traditional education system tends to be more preferable to the alien education (formal education) system which emphasises paper qualification at the expense of practical and instrumental skills. The problem with an education system that emphasises paper qualifications is that it tends to take a 'one size fits all' approach without contextual analysis to establish the needs of each society.

The informal apprenticeship training system which is informed by the ideology of traditional education tends to be synonymous with the pedagogy of the oppressed suggested by Freire in Taylor (1993). It is emancipatory pedagogy as opposed to the banking concept emphasised by the formal education because it focuses on practical and self empowering skills. In other words, the education and training system in the informal industry focuses on relevance and instrumentality of vocational skills.

Contrary to the formal education system which tends to be an ideological state apparatus meant to perpetuate the dominance of the ruling class, the informal apprenticeship training system, informed by the ideology of traditional education tends to be self empowering for the working class manufacturers. Bourdieu in Giddens (2001) observes that the role of education in a capitalist society is social and cultural reproduction. The formal training institutions inculcate skills needed for employment by the capitalists. On the other hand, the informal industry manufacturers rely on traditional apprenticeship training which takes place at the ordinary workplaces and makes production tasks part of the instruction as a means of acquiring relevant productive skills. In this set up, the manufacturers demonstrate the desired quality of performance for apprentices and serve as coaches while apprentices complete the same tasks. By performing the different tasks in the manufacturing process, the apprentices acquire the skills and knowledge of their respective trades. Although the sources of skills may seem to be diverse, the majority of the manufacturers in the informal metal industry have acquired their skills through the informal training system, implying that the traditional apprenticeship tends to be instrumentally relevant to the new economic dispensation of the informal industry.

The training strategies adopted by manufacturers or trainers in the informal metal industry tend to be participatory as they combine production and training. According to Freire participatory pedagogy is emancipatory and self empowering. The findings of the study indicate that the 'hands on' approach is the most widely used training strategy. In the same vein, Kanyenze et al (2011) argue that special issues in developing and transitional countries include promoting work based learning education with production and traditional apprenticeships. In other words training for the informal economy must have characteristic of education with production since production cannot stop engagement in training. It can also be argued that the critical role of education and training is promoting employability, enhancing productivity and poverty reduction. Hence the adaptive informal apprenticeship training system becomes synonymous with liberating education proposed by Freire.

Evidence from empirical data shows that the trainers in the informal industry do not follow a syllabus document. In other words the traditional apprenticeship training takes an integrated curriculum approach as opposed to the compartmentalisation curriculum of the formal education. This is supported by Hirst in Barker (1985) who argues that knowledge is one comprehensive entity rather than fragmented units. Thus the integrated approach adopted in the informal industry tends to be efficient in cascading technical skills to the trainees. Generally the syllabus or curriculum for training the metal work apprentices tends to be intertwined with the production process and makes use of the participatory pedagogy which tends to be self-empowering and emancipatory.

Inevitably the employment structure of Zimbabwe has transformed to include women and children. In most cases the manufacturing business in the informal metal industry tends to be a family business. In other words recruitment in the informal industry is through social networks based on kinship. These points to the fact that the traditional family make up where parents are expected to cascade instrumental technical skills to their children tends to permeate the informal industry. Manufacturing in this new economic dispensation depends on

family units as was the case prior to industrialisation. In other words manufacturers in the informal industries are taking their social responsibilities of supporting family members through training and employment. Extended family networks can be traced in the recruitment system. On the whole, the reconfiguration of the employment structure to include women and children shows that Zimbabwe like many other societies is a changing society. The new economic dispensation requires an adaptive skill training system like the informal apprenticeship training system.

## **CONCLUSIONS AND RECOMMENDATIONS**

Findings from the study indicate that although skills and knowledge systems in the informal metal industry stem from diverse sources, the major source is the traditional or informal apprenticeship training system. The vibrancy of the informal metal industry can be credited to the highly trained and experienced manufacturers or trainers. The informal metal industry is manned by some classified artisans with vast experience. As a result the training received by the informal apprentices is of high quality hence they are able to cascade the skills to other prospective metal products manufacturers. The small scale enterprises were the magic behind the East Asian economic miracle; hence Zimbabwe can borrow a leaf or two from such an experience and support the small scale manufacturers.

Training interventions in the informal metal industry should include provision of credit to the manufacturers or trainers who train the informal apprentices. This will enable them to acquire adequate material resources, tools and equipment of modern technology. It can be achieved by establishing a revolving fund in the ministry responsible for Small to Medium Enterprises. Apprentices who would have completed training and require start-up capital should be provided with access to credit through a revolving fund.

There is also need to establish a business management skills training programme within the informal industry. This can be done through the invitation of tutors from the business school. Such an arrangement will enable the informal metal industry manufacturers to manage their small enterprises efficiently and effectively.

Successful informal metal industry manufacturers should be identified and further trained as mentors of the informal apprentices. It is critical to establish some skill training centres within the informal industry. This may be achieved by upgrading the manufacturers or trainers' presentation and management skills. It might also be necessary to provide them with incentives such as credit or capital to expand their business.

There is also need to upgrade the workshops in the informal industry by way of proper electricity installation, creating more space, improving the drainage system and reducing electricity load shedding. In other words, a conducive working environment should be guaranteed.



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