

Training Levy To Support Construction Craft Skills Training In Zambia

M. Muya¹
A.D.F. Price² &
F.T. Edum-Fotwe²

Construction is a major industry with a significant contribution to the gross domestic product and the development strategy, especially of developing countries. However, the industry often faces many challenges, which include shortage of skilled craftspeople that often lead to cost and time overruns, and quality shortfalls. Improvements in productivity and quality require upgrading the knowledge and skills of all the workers in the industry, including those of craftspeople. Investment in training has been identified as being key to addressing the persistent problem of craft skills shortage in the industry, a view supported by surveyed contractors in Zambia. The surveyed contractors also supported the idea of introducing construction sector specific levy to support construction craft skills training.

Keywords: *Construction Craft Skills, Training Levy, Zambia, Sub-Saharan Africa*

1. Introduction

This paper presents results of a research that, among other objectives, sought to assess the availability and quality of craft skills among construction crafts-persons in Zambia, shown in Figure 1. The survey was exploratory in nature and depth. Other than respondent and company details, the other information elicited in the questionnaire included: availability of craft skills; companies' responses to craft skills shortages; sources for recruitment of craft personnel; satisfaction with the quality of craft skills; views on introduction of training levy specific to construction; how craftspeople in companies obtained their skills; frequency with which companies employed female craft employees; and extent to which HIV/AIDS had affected companies' skilled labour force.

From the data obtained via structured questionnaire interviews, only information obtained from two open-ended questions

regarding: contractor's opinion on what should be done to improve construction craft skills; as well as their views on their support for introduction of construction sector specific training levy has been reported in this paper.

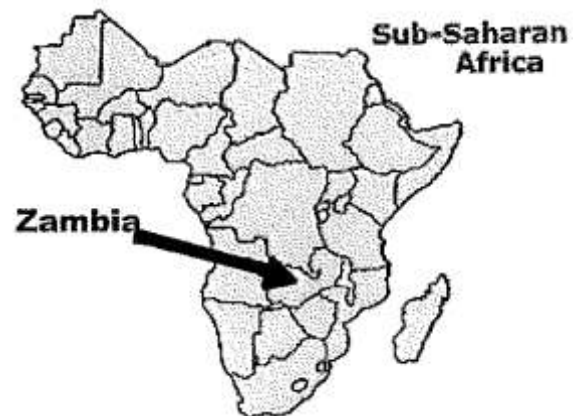


FIGURE 1: Location of Zambia in Sub-Sahara Africa

¹ Department of Civil & Environmental Engineering, University of Zambia PO Box 32379, Lusaka, Zambia. Email: mundiamuya2000@yahoo.co.uk

² Department of Civil & Building Engineering, Loughborough University, Loughborough, Leicestershire, LE11 3TU, UK Emails: a.d.f.price@lboro.ac.uk, f.t.edum-fotwe@lboro.ac.uk

2. Significance of the Construction Industry

World-wide, construction has been noted to be one of the major industries with a significant gross domestic product (GDP) contribution of around 8 to 10 percent in developed countries (Dainty et al, 2004; Bodapati, 2003) and anywhere between 1.5 to 11 percent in developing countries (Jayawardane and Gunawardena, 1998; Chen, 1998; and Lopes, 1998) depending on the performance of the economy. The GDP contribution could be much higher if the hidden economy, of which construction boasts a significant proportion of through its backward and forward linkages, is taken into account (Chen, 1998). The industry provides the infrastructure that supports other sectors of the economy, thus playing an important role that goes beyond its share of national output in the development strategy of any country. Its capacity for employment creation has also been acknowledged (Dainty et al., 2004; Bodapati, 2003; and Chen, 1998). Therefore, the capacity and efficiency of construction is important to the development strategy, especially of developing countries.

Construction, however, often faces many challenges, ranging from internal weaknesses to external threats that affect and influence its performance (Ofori, 2000). Such exigencies are usually worsened by the shortage of skilled craftspeople (Jayawardane and Gunawardena, 1998; Mackenzie et al, 2000; Rowings et al, 1996; and Dainty A R J et al, 2004), often leading to cost and time overruns, and quality shortfalls (Kumaraswamy, 1997).

3. Need for Construction Craft Skills Training

A significant number of the problems faced by the construction industry arise from a need to maintain a skilled and competitive workforce (Rowings et al, 1996).

Productivity and quality levels are quite often dependent on the performance of construction workers and managers at all levels (Kumaraswamy, 1997). Therefore, improvements in productivity and quality require upgrading the knowledge and skills of all the workers in the industry, including craftspeople. However, unstable levels of activity in construction industries in many countries often significantly contribute to engagement of large numbers of unskilled workers in the industry (Rosenfeld and Warszawski, 1993). For example, in their study, Jayawardane and Gunawardena (1998) reported that of the total workforce in their survey of construction craftspeople in Sri Lanka, 51 per cent were unskilled workers.

Investment in training has been identified as being key to addressing the persistent problem of craft skills shortage in the industry (Jayawardane and Gunawardena 1998; Kumaraswamy, 1997). The dilemma for training, however, has been, 'Who should pay for it?'

In most countries, governments contribute to financing vocational and technical training and also regulate the other suppliers of finance such as employers and trainees (Clarke and Wall, 1998; Ziderman, 2001). In many countries, craft trainees contribute to formal pre-employment training through payment of user-fees, and where enterprise training is used to provide transferable skills, trainee apprentices usually indirectly bear the cost of training through low wages (Ziderman, 2001). The most significant and sustainable supplementary contribution to government funding of craft training would be from employers. Market forces, however, pose problems to the availability of this source of funding. The contribution by employers is often hampered by instability in workloads in most construction markets (Rosenfeld and Warszawski, 1993) as well as the non

holding of property rights over the human capital by companies (Ziderman, 2001) which encourages 'poaching'. Poaching discourages investment in training by companies and unstable workloads lead to contractors laying off workers when there is no work. For these reasons, it has been argued that government regulation of employer-financed training should be prescribed either through enterprises participating in the apprenticeship training system (Syben, 1998) or in the form of training levies to supplement government funding (Ziderman, 2001).

4. Training Levy Systems

Training levies in the form of payroll levy are the best known and most widespread form of training taxation world-wide. National payroll schemes are usually classified into two groups reflecting different underlying objectives: revenue generation schemes, where levy proceeds are used to finance training provided by public sector institutions; and levy-grant schemes aimed at encouraging training investment by firms (Ziderman, 2001).

Revenue generation payroll levy schemes may be seen as mechanisms for greater funding diversification, lightening the burden for training on the state. The levy income in this case complements existing government financing. Levy-grant schemes on the other hand focus on company in-service training. They create an incentive for firms to invest more in the skills development of their workforce, be it via on-the-job training or by sending workers to train externally.

Levels of payroll levies are well established from international experience. Both in Sub-Saharan Africa (SSA) and elsewhere, almost all countries that have introduced pay roll levies have set a standard national levy rate in the range of 1 to 2 per cent of company payroll bills, with

the majority at the lower end. The major objective of establishing national training funds is to provide sustained and stable funding for the training programmes they support. Ziderman (2001) observed that, in practice, this is not always achieved. Funds raised may be absorbed into general government revenues as noted in a number of SSA countries, where national training levies are in place.

Throughout much of Europe, the levy system provides the vital means of registering industry's commitment to and involvement in training (Clarke and Wall, 1998). Ziderman (2001) noted that *'In many countries, particularly in Latin America, the dominant tool for funding augmentation is the training levy, usually levied as a percentage of payroll. Levy proceeds are used mainly to support public sector training provision, with the emphasis on initial training at formal public training institutions.'* He also reported that training funds, though diverse in objectives and practice, have been established in 30 of the 47 countries of SSA. Many of the levy systems in SSA are national in design, and while a few successful examples were noted among those established, it was observed that most of the funds fell short of the standards required to operate them (Ziderman 2001). Their weaknesses included deficiency in design, poor implementation or malfunction.

Zambia is one of the SSA countries which has not yet implemented the levy system. Currently, there is no mechanism or government regulation that compels employers of construction craftspeople to contribute funds to the construction craft skills training offered at public trade schools in the country. However, plans are being considered to create a training fund and 2 per cent levy on employers' payroll has been suggested for implementation. In view of the shortcomings observed in national

training funds of other SSA countries, it was decided to investigate how much support the concept of a construction sector specific levy would receive from contractors in the Zambian construction industry.

In the absence of a national system that incorporates employers to finance training, a sector training fund, based on training levies on sector employers can be considered for implementation by the industry in question. Franz (2000) gave the example of the Botswana Construction Training Trust which is financed through a levy based on the value of tendered contracts. The levy thus accumulated is matched by government subventions and is used to finance a training centre providing tailor-made courses for construction companies.

Sector funds have been identified to offer the advantages of flexibility and the ability to focus more directly on the training needs of a particular industry. Zideman (2001) argued that sector funds may be more acceptable to employers because of a greater industry-specific orientation, less bureaucracy and greater sense of ownership by the companies that contribute to it.

5. Research Method

The data in the study were collected via semi-structured questionnaire interviews directed at construction contractors. The interviews covered two urban, one semi-urban and one rural province out of a total of nine provinces. The use of the questionnaire interview approach was opted for to enable both quantitative and qualitative analyses to be performed on the data. Only information obtained from two open-ended questions regarding: contractor's opinion on what should be done to improve construction craft skills; as well as their views on or support for introduction of construction sector specific training levy has been reported in this paper.

6. Details of Respondents

Of the interviewees from the 32 construction companies in the survey, 18 were managers, managing directors or chief executive officers. The remaining 14 were engineers, quantity surveyors or from the estimating office or administration. The experience of the respondents in the construction industry ranged from 3 to 48 years. The majority, 20, had 10 or less number of years of experience in the industry. Generally, the respondents at director level had more than 10 years experience. The work experiences of the respondents within the construction industry ranged from human resource management, quantity surveying, estimating, administration planning and supervision to tendering and management.

7. Details and Activities of the Companies in the Survey

The years the companies in the survey had been in operation ranged from 1 to over 100, reflecting a whole mix of companies, from small labour-based to medium sized contractors. Of these, 18 of them had been in operation for more than 10 years.

Figure 2 shows that the companies in the survey were predominantly engaged in building and civil engineering works, with over half of the companies undertaking work in both areas. Only two companies were involved in process or manufacturing activities. Other details in the survey showed that over 78 per cent of the contractors interviewed undertook both new construction and rehabilitation projects, while about 72 per cent of them were also involved in maintenance.

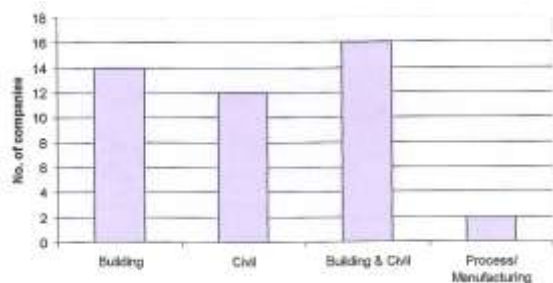


FIGURE 2: Construction activities companies were involved in

8. Discussion of Results

8.1 Improving the quality of construction craft skills.

In the first open-ended section of the questionnaire, respondents were asked to indicate what, in their opinion, should be done to improve the quality of construction craft skills in Zambia. Figure 3 is a summary of the responses received. Different terminologies were used by the respondents, but for purposes of content analysis, based on commonalities of what was meant, the responses were grouped in eight general categories shown in Figure 3.

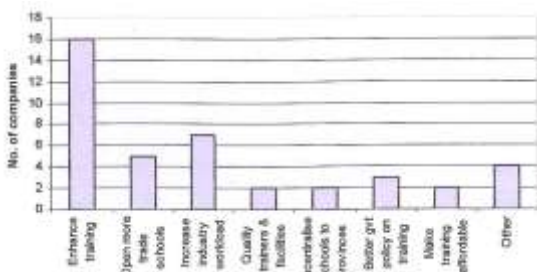


FIGURE 3: Proposals by contractors to improve construction to improve construction craft skills in Zambia

In decreasing order: enhancing training; increasing industry workload; opening more craft schools; and better government policy on training were the most cited actions required to improve the quality of construction craft skills. Quality of trainers and facilities; decentralisation of schools to provinces; and making training affordable were each mentioned by two companies. Other miscellaneous

suggestions such as ensuring participation of professional associations, addressing gender focus, taking trades training to rural areas were also mentioned and were grouped under other proposals.

The need to enhance training in order to improve the quality of construction craft skills was cited most by the companies. This was mentioned by 16 of the 32 companies in the survey. Under enhanced training, proposals included: introduction of sector specific training levy; introduction of apprenticeship and in-house training; allocating more time to practicals during the training sessions; improvements in training and re-training programmes; skills developed need to meet regional and international standards; and incorporation of business skills and ensuring that regular skills training address and meet industry requirements.

Increasing industry workload was second after enhancement of training, and was mentioned by 7 of the companies. In this proposal, respondents indicated that more projects should be available on the market to assure absorption and adequate application of the acquired skills by the craft-persons.

In the third most mentioned proposals, 5 respondents suggested that more craft schools be opened. In this proposal respondents urged government to open up more trades training schools, especially in rural areas.

Government was further urged to come up with a better policy on training. Three companies mentioned this and urged government to: decentralise construction craft training to provinces; re-orient craft schools to offer appropriate training; and to come up with a policy on more trained personnel as well as upgrade the trade institutes to offer higher qualification.

8.2 Construction industry specific levy to finance skills training

Respondents were also asked for their comments on construction specific levy to finance skills training in the industry. Provided it was well managed, the concept of a training levy on the industry employers to support skills development was overwhelmingly supported. Of the 32 respondents, only one did not support the idea and one company commented that it was sub-standard, though their was no elaboration on what was meant by sub-standard.

Many statements were received in support of the levy, such as:

“it is necessary; it would be a great advantage; it is good as it would assist in imparting skills to young entrants into the industry; supported as it would offer training opportunities to more school leavers; it is the only way of achieving quality training, but it requires government intervention; it would enhance and improve skills for the industry, it would improve craft skills because of training revenue; it can help training and motivation within the industry; the construction industry should contribute to assure skilled staff; the levy would encourage the training and utilisation of local personnel; it will create a financial base for sustainable training; it is ideal for quality training; and that it would help small-scale contractors.”

Government was encouraged to introduce the levy as it was the only way of achieving quality training. It was also viewed as the way industry would show commitment to training that can result in better quality crafts-persons. One respondent even went on to say that introduction of the levy was long overdue.

There were elements of concerns in the responses as well. The concerns appeared to be on the mode of implementation. Some respondents

commented that the training levy concept is good if it was ploughed back for in-service training and that it would be welcomed if it remained affordable. Other issues regarding implementation were detected in statements like:

“supported if there is accountability; good if it is well implemented; good if it improves the quality of skills; it would be good if government passed laws, otherwise firms will continue using cheap untrained labour; levied contractors should have tax benefits; the levy should be a fixed percentage of contract and should be paid by clients; each contract should be levied at source; the levy would be welcome if it remained affordable; and levies should be sustainable to everyone involved.”

9. Conclusions

The wealth of any nation is ultimately based on its human resource, and education and training are the primary vehicles of developing this resource. To succeed in the increasingly knowledge-based global economy, countries must produce and retain critical masses of educated and appropriately trained people. Firms and countries need to upgrade their capabilities and resources, including the human capital; improve efficiency; and raise the quality of their work to be competitive locally, regionally or internationally. Investment in training has been identified to be key to addressing the persistent problem of craft skills shortage in the construction industry, world-wide.

Although government budgets are usually the main source of funding for technical and vocational education training, which includes construction craft skills, in conventional training markets for the formal sector, particularly pre-employment training, employers also have an important role to play. Contributions from employers represent possible complementary stable

sources of financing to improve training outcomes.

The need to enhance training featured prominently in the surveyed contractors' suggestions for actions required to improve the quality of construction craft skills in the research reported in this paper. There was also very high support for the need to introduce construction sector specific training levy to support craft skills improvement in Zambia among the surveyed contractors. The argument by Ziderman (2001) that sector funds may be more acceptable to employers because of a greater industry-specific orientation, less bureaucracy and greater sense of ownership by the companies that contribute to it appear to stand in the face of the findings reported in this paper.

Acknowledgements

The authors graciously acknowledge the financial and in-kind support of DFID, the British Council and the Commonwealth Scholarship Commission for the work involved in this study. The views expressed are those of the authors and not necessarily of any institution with which they are affiliated or mentioned here.

References

- [1] Bodapati, S.N. (2003) Perspective on construction in the USA. *Construction Information Quarterly*, Volume 5 Number 4, pp 3-7, The Chartered Institute of Building.
- [2] Chen J.J. (1998) The Characteristics and current status of China's construction industry, *Construction Management and Economics*, 16, pp 711-719
- [3] Clarke L. and Wall C. (1998) UK construction skills in the context of European developments, *Construction Management and Economics*, 16, 553-567.
- [4] Dainty A.R.J, Ison S.G. and Root D.S. (2004) Bridging the skills gap: a regionally driven strategy for resolving the construction labour market crisis, *Engineering, Construction and Architectural Management*, Volume 11 Number 4, pp 275-283.
- [5] Franz J. (2000) Financing training: Evidence from other countries. Paper prepared for the workshop on developing a TVET strategy for the Tigray Regional State Addis Ababa, Ethiopia.
- [6] Jayawardane A.K.W. and Gunawardena N.D. (1998) Construction workers in developing countries: a case study of Sri Lanka, *Construction Management and Economics* 16, pp 521-530.
- [7] Kumaraswamy M.M. (1997) Improving industry performance through integrated training programs, *Journal of Professional Issues in Engineering Education and Practice*, Volume 123 Number 3 pp 93-97.
- [8] Lopes J. (1998) The construction industry and macroeconomy in Sub-Saharan Africa post 1970, *construction Management and Economics*, 16, pp 637-649.
- [9] Mackenzie S., Kilpatrick A.R. and Akintoye A. (2000) UK construction skills shortage response strategies and an analysis of industry perceptions, *construction Management and Economics*, 18, 853-862.

- [10] Ofori G. (2000) The knowledge-based economy and construction industries in developing countries. Proceedings: CIB W107 1st International conference: Creating a sustainable construction industry in developing countries, 11 to 13 November 2000, Stellenbosch, South Africa.
- [11] Syben G. (1998) A qualification trap in the German construction industry: changing the production model and the consequences for the training system in the German construction industry, Construction Management and Economics, 16, pp 593-601.
- [12] Rosenfield Y. and Warszawski A. (1993) Forecasting methodology of national demand for construction labour, Construction Management and Economics, 11 (1), 18-29.
- [13] Rowings J.E., Federle M.O. and Birkland S.A. (1996) characteristics of the craft workforce, Journal of Construction Engineering and Management, Volume 122 Number 1, pp 83-90
- [14] Ziderman A. (2001) Financing Vocational Training to Meet Policy Objectives: Sub-Saharan Africa, Cold Bank, Washington D.C.