

Traditional Apprenticeship System of Labour Supply for Housing Production in Saki, Southwestern, Nigeria

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Abstract

The study investigated the extent to which the traditional apprenticeship system, a major stakeholder in the training of building artisans in Nigeria (NHP, 2006), has succeeded in supplying the required artisan for housing development in Saki, Oyo State. Both primary and secondary data were utilized for the study. Pre-tested set of questionnaires were used to collect the primary data, and a simple random sampling procedure was adopted in selecting the samples. A total of 310 respondents, representing 5.5% of the total population were selected. The study revealed that the existing building artisans in the town were aging-out (66.4% were at least 41 years old) and the rate of enrollment as apprentice is fast dwindling (from 861 in 1997 to 189 in 2006, at an average rate of -16% per annum). Most prominent among the reasons proffered for the dwindling enrollment of apprentice building artisans in the town are: 'quest for overnight richness' (61.3%); 'preference for occupation with little physical/mental ability requirements' (51.9%); 'perceived dirty nature of the occupation' (36.1%); and, 'preference for occupation with daily benefits for the apprentice' (27.1%). Strategies were proposed to tackle identified challenges.

Key words: Housing production; Manpower development; Traditional apprenticeship system; Work-brigade; Nigeria.

Introduction

Despite the undeniable invaluable contributions of adequate housing to personal and national development, the challenge of having adequate manpower for housing construction poses a lot of challenges to urban managers and development planners in Nigeria in their efforts to provide adequate 'housing for all' by the year 2015 as envisaged in the National Housing Policy (2006) and the United Nations Millennium Development Goal. Manpower development has been identified as being 'the basic resource' for development by the late American President, John F. Kennedy, in the first manpower report of the USA (Agbola and Olaoye, 2008). Availability of manpower, in both qualitative and quantitative terms, is very crucial in housing construction, and constitutes the second largest single component of resource input required by the construction industry (Jinadu, 2004). Manpower required for building construction varies from professionals like Architects, Builders, Engineers, Quantity Surveyors, Urban and Regional Planners, Estate Managers to building artisans like bricklayers/masons, carpenters, welders/iron-benders, house painters, electricians and the like professions, and labour. Manpower costs constitute about 40% of the total housing construction costs (Agbola, 1985). In most cases, the types of manpower usually needed in large quantity for housing construction in Nigeria are artisans and labour.

The crucial need for manpower development for housing emanates from the ever-increasing housing needs in both urban and rural areas in Nigeria, with the needs in the cities already reaching 'emergency' state. Provision of housing in quantitative and qualitative terms has been a major focus of development planners and urban managers, to help boost economic and social well-being of the citizens within their domains.

Availability of adequate skilled manpower in the housing construction sector, has for long been identified as being in short supply in Nigeria. For instance, as far back as 1980, the planners of the Fourth National Development Plan observed that shortages of skilled manpower constitute the most serious bottleneck to the capacity of the economy to absorb the increasing volume of investment made possible by oil revenues (FGN, 1985; Ojo, 1986; Agbola and Olaoye, 2008).

The Third National Plan (1975-80) made specific mention of the building artisans that 'the categories of masons and carpenters constituted the largest deficit in the estimated manpower requirements by major occupational categories' and that 'about 245,000 masons, carpenters and electricians [i.e. artisans] (or 56.6% of all manpower requirements) were projected as being needed between 1975 and 1980 (cited in Agbola and Olaoye, 2008). Onibokun (2002) documented that shortages [of artisans] have already been experienced in many urban areas where massive unemployment or underemployment

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is accompanied by a scarcity of brick or block layers, carpenters, plasterers, plumbers and other trades in the building industry. That this acute shortage of artisans is occurring despite the existing National Housing Policy's (2006) goal of providing adequate shelter for every Nigerian by the year 2015 call for urgent appraisal of the existing training programmes for these artisans if the policy's goal will not comatose.

The primary focus of the present research, therefore, is to investigate the extent to which the traditional apprenticeship system is succeeding in supplying the required artisan for housing development in Saki, Oyo state, Nigeria, with the view of identifying the challenges being faced by this system, and proffering solutions to the identified challenges. Although the research is focused on Saki in Oyo state, it is believed that our findings will be of great benefit to understanding the underlying factors of the perceived dwindling population of building artisans in Nigeria. Our recommendations could also have wider applicability for developing nations and regions having similar problem.

Review of the Literature

Labour supply for housing production is the number or quantity of workers that would make themselves available at a corresponding series of wages. Brett (1987) classified labour for housing construction as comprising Professionals (architects, engineers, surveyors, etc.); Technicians (architectural technicians, building technicians, etc.); Building crafts (bricklayers, painters and decorators, plasterers, plumbers, roof slaters and tillers, shop-fitters, stonemasons, wall and floor tillers etc.); and Building operatives (general building operatives).

Moavenzadeh (1978) identified six major types of training available for work in construction in developing countries as:

- i. Various apprenticeship programmes for training building construction labour force;
- ii. Secondary vocational trade schools which include building trade sections;
- iii. Special training centres organized for the sole purpose of training construction workers;

- iv. Mobile units used to compliment training given in a fixed centre or to provide short intensive courses in limited skills to people who would not otherwise have ready access to training for construction;
- v. Upgrading and retraining programmes for workers in the industry; and,
- vi. Training for construction work as a component of youth employment and training schemes, pre-vocational training and community development programme.

Of all these training programmes available, the most prominent means of skill acquisition for building construction industry in developing countries are through informal training on the job (traditional hereditary form of apprenticeship) and through vocational training schools (Agbola and Olaoye, 2008).

Empirical investigations by Kilby (1964); Adeniyi (1980), Onajide (1981), Agbola (1993, and 2005); and Onibokun (2002) all confirmed the inadequate supply of labour for house building industry in Nigeria. Onibokun (2002) and Agbola (2005) lamented that there has been a decline in the rate of supply of building artisans as the avenue for training the artisans are few and with fewer number of artisans in the labour market, the wages of the available ones are demanding are increasingly high. He regretted further that the quality of training from the existing trade centres need much to be desired as theory as opposed to practice is emphasized with the result that graduates from such institutions are empty and are not technically competent.

Apprenticeship is defined by the Encyclopedia (1988) as 'training in art under a legal agreement defining the relationship between master and learner and the duration and conditions of the relationship'. The Nigerian Industrial Training Fund (ITF) described apprenticeship as 'training for occupations in the category of skilled crafts and trades requiring a wide and diverse range of skills, knowledge, experience and independent judgement '(Onasanya, 1988).

Encyclopedia (2001) traced the tradition of apprenticeship to before early 16th century when earliest artists usually acquired their skills mainly through various systems of apprenticeship. The apprentice learned his trade and practiced it under the instruction and

supervision of a master. Typically, a boy was bound to a master at the age of 14 and served for seven years. This system was in force throughout most of the renaissance period. In the 17th century, the system changed so that an apprentice lived and studied in the house of a master for an indefinite period and was free to leave when he felt he had learned enough.

In the USA, the decision to undertake to establish workable company apprenticeship programme arose as a result of the manufacturers being alarmed at the large preventable wastes incurred because their workers lacked fundamental trade knowledge (Agbola and Olaoye, 2008). However, a vigorous coordinated national apprenticeship programme came into existence with the passage of the Fitzgerald Act in 1937.

Agbola and Olaoye (2008) opined that apprenticeship system arose in Nigeria as a family institution, as a means of supplying artisans for the various crafts then in existence and as a means of propagating the heritage of the family. Agbola (1985) identified the inclusion of refugees, war captives and bondsmen as other sources of recruitment of apprentices before colonialization. With colonialization, the British introduced new building materials and building designs which needed specialized training to use and construct. In addition, as the country developed economically, there were more bicycles, auto cycles, motor-cars and Lorries. There was need for men to service and maintain them. A new breed of occupations, distinct and different from the traditional ones thus emerged (Agbola, 1985; and Onasanya, 1998; Agbola and Olaoye, 2008).

Koll (1960, cited in Agbola and Olaoye, 2008) identified diverse forms of apprenticeship which has replaced the old system of hereditary craft as the basic form of apprenticeship has given way to the processes of free recruitment in Nigeria. Agbola and Olaoye (2008) observe that since apprenticeship existed in the form of a relatively well-developed and organized training system in the traditional crafts, it was not difficult to introduce, adapt and incorporate the new occupations into the existing apprenticeship system. In order to distinguish them from the traditional crafts, the building trades such as carpentry, masonry and glassworks were considered as 'modern trades' in the same category as photography,

bicycle repair and auto-mechanics. Recruitment into these trades transcends family or tribal affiliations.

Callaway (1965) noted that the duration of apprenticeship is either three or five years. Fees vary considerably by craft, and when the apprentice extends beyond five years, there is usually little or no fee paid. In some cases, small payments are made by the master to the apprentice and sometimes contributions in the form of food, clothing or shelter. Masters in the old crafts often accommodate apprentices in their houses, but this is less true in the new-line artisan workshops (Agbola and Olaoye, 2008).

Onajide (1981) traced the astronomical increase in the cost of hiring bricklayers, carpenters, plumbers and other artisans to the fact that artisans and technicians in diverse allied professionals in the field of building technology have become contractors and regarded themselves more like professional engineers than skilled building artisans.

Onasanya (1998) pointed out that apprenticeship is a good means of teaching skill but it is not without its disadvantages, which include lack of programmed training. To him, in most cases, the masters teach their apprentices as work comes, not as planned, and there is lack of end-of-course test or examination to standardize the level of craftsmanship and differences in standards of craftsmanship from one employer or master to another.

In recognition of the importance of apprenticeship system of labour supply, the Federal Government of Nigeria (FGN) established the Industrial Training Fund (ITF) during the second National Development Plan period (1970-74) which led to the promulgation into law of a National Apprenticeship Scheme in 1982 (Agbo, 1990). The FGN in its National Housing Policies of 1985, 1991, 2002 and 2006 also provides that government should restructure the apprenticeship system and expand vocational training centres for the training of personnel such as masons, plumbers, carpenters, welders, bricklayers and other artisans in the building industry. The FGN in its 1992 National Urban Development Policy provides for the strengthening and better equipment of the existing technical and trade centres and vocational colleges to enhance middle and low

level technical manpower required for built environment management. Likewise, the FGN in its 2004 and 2006 Draft National Housing Policy makes provision for developing effective manpower and training programmes to raise the output of the building industry.

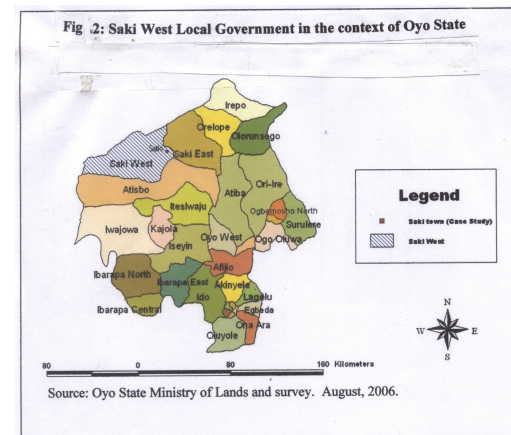
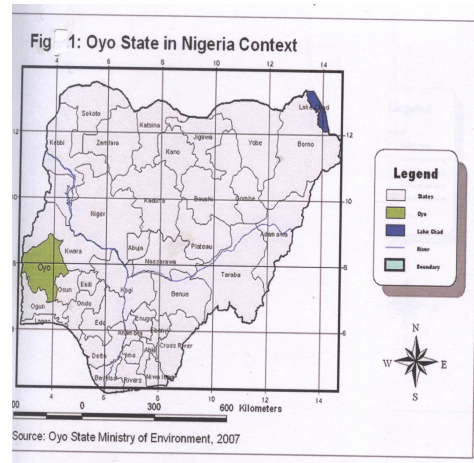
The Study Area

Saki, the administrative headquarters of Saki West Local Government Council Area in Oyo State, Nigeria, lies approximately on 3⁰24¹ East of the Greenwich Meridian and Latitude 8⁰4¹ North of the Equator. It is about 184 and 320 kilometres by road from Ibadan and Lagos respectively (Ajadi, 2004). It is bounded by Ago-Are to the South, Ilesha-Ibaruba to the North, Ogbooro to the East and Benin Republic to the West, making it a border town (Figs 1 and 2). The border location may account for the noticeable thriving trans-border business in the town.

This historic Yoruba town, situated in the Northwestern part of Oyo State, has been serving as an administrative headquarters since colonial era. It was the headquarters of Saki Native Authority which was changed to Saki District Council in the early 1960s. In 1970s, it became the headquarters of Ifedapo Local Government Council Area, and since 1976, is the headquarters of Saki West Local Government Area. The administrative position of the town, since colonial era till date, noticeably encourages population influx from the surrounding hinterlands, which, together with natural increase in population, has resulted in the town having population of about 139,000 in 2006 (NPC, 2006), the highest among the surrounding towns, thus necessitating demands for building artisans to construct accommodation for the teeming population.

The early settlers used purely local materials such as mud for constructing walls and thatch and ropes for roofing. For the early settlers, building construction relied mainly on the traditional ‘aaro’ system, involving age-grades, friends and relatives, constituting into a ‘work-brigade’ providing the required manpower and labour required for housing construction. The owner provided the foods, drinks and other forms of entertainment for the builders. The only form of payment by the owner, other than providing food, drinks and entertainment during the construction, was in form of making himself available whenever

there was the need to construct other building(s) for other member(s) of the ‘brigade’. Since purely traditional building materials were used in the construction, professional artisans taking care of different aspects of the building construction activities had not emerged as separate and distinct vocations, though some individuals had excelled in some aspects of the tasks. Traces of buildings constructed under this system are still found in the core areas of the town. However, with the advent of colonial rule, the use of imported building materials such as cement, corrugated iron sheets and other imported roofing sheets, louver blades and so on, were introduced, and have taken over. Building construction has therefore gone beyond the use of friends and relatives to relying on professional builders that are mostly in form of building artisans.



Methodology

Both primary and secondary sources of data were utilized for this study. Secondary data were sourced from relevant published and unpublished materials. A stratified simple random sampling procedure was adopted in collecting the primary data. The first stage involves breaking the building artisans in the town into their existing six groups. The second stage involves obtaining information on the registered members of each of the six artisan groups in the town. The total population of registered building artisans in the town was found to be 5,653, and that wide variations existed in their distribution among the groups, ranging from 2,600 for bricklayers to as low as 34 for plumbers. Hence, equal percentage was not selected from the groups. Five percent was taken as the sample size for the bricklayers and carpenters with over 2400 registered members each, but this percentage would have underrepresented the smaller groups. For instance, five percent of the 34 plumbers and 40 house-painters would have given sample of two for each group. Different percentages were therefore adopted for different artisan group, based on their population: five percent was adopted for the 360 iron-bender, ten percent for the 128 registered electricians, and 25 percent for the 40 house-painters and 34 plumbers respectively. In all, a total of 310 respondents, representing 5.5% of the total population were selected (Table 1). In each artisan group, the head of the group was purposively selected while others were randomly selected based on the association's register.

Two sets of questionnaires were used to collect the primary data. One set was used for the heads of the six groups of building artisans identified in the study area, while the other set was used to interview sampled members of the groups.

Information sought from the heads of the groups of the artisans include year of establishment of the group, and annual membership of the group from 1997 to 2006. Information on distribution of members by age and the trends in apprenticeship between 1997 and 2006 were obtained with the assistance of the heads of the groups. In the case of the sampled members of the groups, questions asked include age, year of graduation, and apprentice enrollment rate. The information obtained on the rate of apprenticeship and ages

were used to cross-check the authenticity of those supplied by the group heads.

From each of the six groups of artisans, sample population were interviewed on meeting days, with the assistance of the heads, while, in the case of the heads of the professional groups, questionnaires were read, interpreted and left with them for an average of between two to six days before collection. Data collected were analysed using simple statistical techniques of frequency and percentages and presented in Tables.

Results and Discussions

The distribution of the sampled artisans by age is presented in Table 2. It is observed that only 5.2 percent of the master craftsmen surveyed were aged less than 30 years, and nearly three-quarters (66.4%) of them are at least 41 years old. This might be an indication that master artisans in the study area are aging off with inadequate replacement.

Table 3 showed the trends in population of building artisans in the study area. It is observed that the artisans' associations in the town were founded in different years, ranging from 1921 when carpenters' association was founded, through 1937 when the bricklayers association was founded, to as recent as 1990 when plumbers association was founded. The emergence of the first professional association, the carpenters, might be due to the introduction of corrugated iron sheets and nails by the colonial masters in place of thatched roofs and ropes which were formerly in vogue. With the introduction of these new innovations, there is need for specialists to construct the new roofs, windows, doors and other wooden structures and utensils now needed in houses, hence, the emergence of carpenters as distinct professional building artisans. The emergence of bricklayers as distinct professional building artisans in 1937 might owe much to the introduction of new building materials, most especially cement and mortar for construction of walls and floors. The carpenters and the bricklayers held sway as the only building artisan associations in Saki till the oil-boom era of 1970s. With the sudden affluence of Nigeria in 1970s, the taste of Nigerian, especially with reference to housing quality desires improved significantly. Demand for iron reinforced structures and use of metallic

elements in construction lead to the emergence of iron-benders as an important group of building artisans in Saki, and their association was established in 1973. House painters' association was established in the following year, 1974, as a result of demands for their services. In 1978, electricians, specializing in wiring buildings and connecting electricity to buildings, emerged as a professional association. The last of the professional building artisans' association to be established in Saki is that of the plumbers in 1990. There is thus a gradual evolution of the different building artisans' professional associations in the town.

The data for the membership of the various artisan groups were obtained from the presidents. For the study, data was available for only a period spanning 1997 to 2005. The breakdown of the trends in membership of the various artisan groups is also presented in Table 3. By 1997, the carpenters' association had the highest registered members of 2,399, followed, in descending order, by the bricklayers (2,520), iron-benders (298), electricians (105), house painters (39) and plumbers (32). By 2005, the populations of the various artisan associations have risen to the following: bricklayers, who are now in the lead (2,600), followed, in descending order by carpenters (2,490), iron-benders (358), electricians (127), house painters (40) and plumbers (34).

The table also contains the percentage change in population of the different building artisans in the study area. From the table, it is observed that the population of bricklayers increased from 2,520 in 1997 to 2,600 in 2005, giving an average annual increase of 0.3 percent over a period of nine years. The population of registered carpenters increased from 2,399 in 1997 to 2,490 in 2005, at an average of 0.4 per-cent increase per year. In the same vein, the population of registered iron-benders increased from 298 to 358 between 1997 and 2005 at an average of 2.1 percent per year. The observed increment in the remaining groups of artisan in the same period is provided below: electricians increased from 105 to 127 with an average increment of 2.1 percent; painters increased from 39 to 40 with an average annual increment of 0.3 percent; and plumbers increased from 32 to 34 at an annual increment

of 0.7 percent. In all, the total number of registered building artisan in the study area increased from 5,393 in 1997 to 6,649 in 2005, at an average annual increase of 2.3 percent.

The next variable investigated is the trends in apprentice enrollment in the various artisan groups between 1997 and 2006. The results of the investigations are presented in Table 4. From the table, steady decline is observed in the number of apprentices enrolled in the entire various artisan group investigated. For instance, apprentice bricklayers decreased from 97 in 1997 to 40 in 2006, declining at an average rate of 9 percent per annum, while apprentice carpenters decline from 499 to 80 within the same period, with an average annual decrease of 18 percent. The breakdown of the rate of decline in apprentice enrollment for the remaining artisan groups are presented as: Iron-benders, 15 percent, Electricians, 14 percent; House painters, 10 percent; and Plumbers, 11 percent. In all, the total number of apprentice artisans declined from 861 in 1997 to 189 in 2006, with an annual average decline of 16 percent. It was observed that there is steady decline in the population of apprentice building artisan in the study area. This, coupled with the prevailing age structure of the present artisans in the town might be an indication of possible future scarcity of building artisans in the town.

Investigations were also carried on on factors responsible for the observed low apprentice enrollment in the town. From pilot surveys carried out at the inception of the research, seven factors were identified as being responsible for the low apprentice enrollment in the town. These are: perceived low demand for artisans; perceived low wages for the artisans; perceived 'dirty nature' of the occupations; perceived risky nature of the occupation; preference for occupations with little physical/mental ability requirements; preference for occupations with daily 'benefits' for apprentice; and, quest for overnight riches. These were incorporated into the questionnaires administered for the study. The breakdown of our findings is presented in Table 5. It is observed that different scores were attached to the identified factors responsible for the observed low enrollment of apprentice building artisans in the study area. The factor that is given the highest score, identified by as high as 61.3

percent of the respondents, is the 'quest for overnight riches'. This observation by the master artisans, was buttressed by the researchers' discussions with some youths in the town, where the general comments was that training as building artisans would not provide money fast enough: they would rather be engaged in cross-border trading and other ventures that would bring the required quick economic returns. The second factor identified by nearly 52 percent of the interviewees, was 'preference for occupations with little physical/mental ability requirements'. Prominent in this category of occupations are riding commercial motorcycles, selling GSM lines and recharge cards, and operating mobile telephone services. As high as 36.1 percent of the respondents identified 'perceived dirty nature of the occupations' as a major hindrance to youths enrolling as apprentice building artisan in the town. Unofficially, the initial primary goal of acquiring formal education in Nigeria was to secure white- (and not blue-) collared jobs. The fact that most of these youths have completed senior secondary education might therefore be very significant in explaining why they are reluctant to enroll as apprenticed artisan. 27.1 percent of the respondents identified 'preference for occupations with daily benefits' for apprentice'. These 'benefits' are mostly in terms of monetary gains and freedom to spend their times whichever way they like. Hence their preference for 'easy' jobs that will bring quick gratifications, like riding commercial motorcycles and the like. Only 10 percent of the respondents identified 'perceived low demand for building artisans' as the reason for the observed low enrollment of apprentice building artisans in the town. Authors' discussions with a cross-section of people including master building artisans, house owners and the general public in the town, revealed that this perception could not be right, as building artisans are very hot cakes in the town, since very many building constructions take place all year round. Less than six (5.5) percent of the respondents identified 'perceived risky nature of the occupations' as the reason for the observed low enrollment. This perception was countered by master building artisans as originating from idle and lazy heads. They claimed that their works as building artisans are far less risky, and less accident-prone than

other jobs, especially, operating commercial motorcycle. The last factor identified by 4.2 percent of the respondents as being responsible for the observed low enrollment of apprentice building artisans in the study area is the 'perceived small wages earned by the artisan'. General discussions with a cross-section of people in the town revealed this perception to be erroneous, as an average artisan in the town earns far more money per day than an average fresh university graduate. For instance, while a fresh university graduate earned (in 2006) about five hundred naira (#500.00, about US\$3.70) per day, none of the master artisans earned anything less than a double of this per day.

Conclusion

After identifying the very crucial roles expected to be played by the traditional apprenticeship system in training the required building artisans for housing production in Nigeria, the study investigated the extent to which the system is performing the anticipated roles. Saki, a medium-sized town in the northern part of Oyo state, Nigeria, was taken as a case study, because all building artisans in the town are products of the traditional apprenticeship system and the system is still thriving in the town. The study revealed that the existing building artisans in the town are aging-out and the rate of enrollment as apprentice building artisans is fast dwindling. Most prominent among the reasons proffered for the observed low enrollment as apprentice building artisans in the town are: 'quest for overnight richness' (61.3%); 'preference for occupation with little physical/mental ability requirements' (51.9%); 'perceived dirty nature of the occupation' (36.1%); and, 'preference for occupation with daily benefits for the apprentice' (27.1%).

Recommendations

Considering the invaluable contributions of the traditional apprenticeship system to housing delivery in Nigeria, together with the myriads of failures recorded by the formal educational system to produce the required artisans, there is an urgent need to evolve strategies to boost the production of required manpower to enable the nation achieve the goal of 'Housing For All by the year 2015'. To this end, the following strategies are recommended:

- I. Since most of the youth expected to participate in the training programmes are already familiar with the formal education system, efforts should be made to, as much as is practicable, provide a formal setting for the training
- II. In the new 'educational system' master tradesmen of the required crafts should be employed to handle practical aspects of the training, and real construction works and sites should be used for these practical. This practice has the advantage of exposing the trainees to real-life practical of their trainings, and enable them interact with the practicing artisan, who, they might come to see and regard as 'professional colleagues' rather than subordinates.
- III. Uniforms, especially for practical, should be designed for the trainees undergoing this new system. The training should be tuition-free, and trainees should be provided stipends in form of bursary awards.
- IV. Government housing and development projects could be awarded to these training institutions and serve as the 'laboratories' for practical and skill acquisitions.
- V. Entrepreneurship training should also be part of the syllabus of these training programmes, so that the products, unlike those of formal educational system, will see themselves more as workers and employment-generators and not job-seekers.

Policy Implications of Recommendations

Actualizing the various strategies highlighted above requires the political will and commitment on the part of every tier of government in the country who need to work out a memorandum of understanding on mode of setting up the training schools, drawing the required syllabi, remunerations for the staff and students and evolving various strategies to encourage patronage of these institutions.

We believe that evolving the above strategies and policies will help a lot in the nation's dream of producing the required building artisans to produce the anticipated housing for everybody by the magic year, 2015, and beyond.

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Table 1: Sample size

Groups of artisans	Number of registered members	Sample size	Percentage
Bricklayers	2600	130	5
Carpenters	2491	125	5
Iron-Benders	360	25	7
Electricians	128	12	9
House painters	40	10	24
Plumbers	34	8	24
Total	5653	310	5.5

Source: Authors' field work, 2006.

Table 2: Age of sampled artisans

Age (Years)	Frequency	Percentage
21-30	16	5.2
31-40	88	28.4
41-50	161	51.9
51-60	40	12.9
≥ 61	5	1.6
Total	310	100.0

Source: Authors' Field Work, 2006.

Table 3: Trends in population of building artisans (1997-2006)

Year	Artisans													
	Bricklayers		Carpenters		Iron – Benders		Electricians		House Painters		Plumbers		Total	
	1937*	1921*	1973*	1978*	1974*	1990*	Pop	% Inc.	Pop	% Inc.	Pop	% Inc.	Pop	% Inc.
1997	2520	-	2399	-	298	-	105	-	39	-	32	-	5393	-
1998	2545	1.0	2422	1.0	313	1.7	110	4.8	40	2.6	32	0.0	5462	1.3
1999	2560	0.6	2435	0.5	326	4.2	114	3.6	40	0.0	32	0.0	5507	0.8
2000	2571	0.4	2453	0.3	337	3.4	117	2.6	40	0.0	33	3.1	5551	0.8
2001	2581	0.4	2465	0.5	345	2.4	120	2.6	40	0.0	33	0.0	5584	0.6
2002	2588	0.3	2474	0.4	350	1.5	122	1.7	40	0.0	33	0.0	5607	0.4
2003	2593	0.2	2481	0.3	353	0.9	124	1.6	40	0.0	34	3.0	5625	0.3
2004	2597	0.2	2487	0.2	356	0.9	126	1.6	40	0.0	34	0.0	5640	0.3
2005	2600	0.1	2490	0.1	358	0.8	127	0.8	40	0.0	34	0.0	6649	0.2
Growth rate	0.3		0.4		2.1		2.1		0.3		0.7		2.3	

Source: Authors' Field Work, 2006

*Year of Establishment % inc = percentage increment

Table 4 : Trends in apprentice enrollment (1997-2006)

Year	Artisans													
	Bricklayers		Carpenters		Iron - Benders		Electricians		House Painters		Plumbers		Total	
	Pop	% inc	Pop	% inc	Pop	% inc	Pop	% inc	Pop	% inc	Pop	% inc	Pop	% inc
1997	97	-	499	-	179	-	44	-	24	-	18	-	861	-
1998	137	41.2	368	-26.3	138	-22.9	18	-59.1	22	-8.3	18	0.0	701	-18.6
1999	98	-28.5	273	-25.8	104	-24.6	10	-44.4	21	-4.5	14	-22.2	520	-25.8
2000	98	0.0	216	-20.9	108	3.8	10	0.0	17	-19.0	15	7.1	464	-10.8
2001	80	-18.4	158	-26.9	83	-23.1	10	0.0	14	-17.6	14	-6.7	359	-22.6
2002	80	0.0	158	0.0	84	1.2	6	-40.0	14	0.0	12	-14.3	354	-1.4
2003	80	0.0	190	20.3	85	1.2	7	16.7	14	0.0	13	8.3	389	9.9
2004	60	-25.0	119	-37.4	71	-16.5	9	28.6	12	-14.3	11	-15.4	282	-27.5
2005	40	-33.3	120	0.8	57	-19.7	10	11.1	12	0.0	6	-45.4	245	-13.1
2006	40	0.0	80	-33.3	43	-24.6	11	10.0	9	-25.0	6	0.0	189	-22.9
Growth rate		-9.0		-18.0		-15.0		-14.0		-10.0		-11.0		-16.0

Source: Authors' Field Work, 2006 % in = % increase

Table 5: Factors influencing low enrolment of apprentice artisans in Saki

Factors	Cases (N = 310)	
	Pop*	%*
Perceived low demand for artisans	31	10.0
Perceived low wages for artisans	13	4.2
Perceived 'dirty nature' of the occupation	112	36.1
Perceived risky nature of the occupation	17	5.5
Preference for occupation with little physical/mental ability requirements	161	51.9
Preference for occupations with daily 'benefits' for apprentice	84	27.1
Quest for 'overnight riches'	190	61.3

Source: Authors' Field Work, 2006. * Sampled more than one factor.