

The Informal Apprenticeship System in Ghana: Post Graduation Job Integration and Its Implications for the Management of Urban Space

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Abstract

In spite of the enormous contributions the informal apprenticeship system has made to empowering many creative intelligent young Ghanaians, it has over the years come under a barrage of criticism and forceful evictions in many urban areas in Ghana. The justification by urban administrators and planners for forcefully removing these graduate apprentices who set up their businesses have been on grounds of encroachment of public spaces and illegal occupation of precarious locations. Informal graduate apprentices have defended their locational choice on ground of unfairness on the part of the state and the market to cater for their space needs. In the awake of a growing informal apprenticeship system in Ghana, this paper sought to establish the inherent relationship that exist between the growth in apprentices, their locational preferences, and their implications for urban planning and management. Using a case study approach the study built upon earlier exploratory research works done in the area. Information was gathered from 162 graduate apprentices-now entrepreneurs in four broad trades namely wood worker; auto mechanics; textile and apparel; and beauticians and hairdressers in Accra using questionnaires. The responses were validated through a focus group discussion. The findings revealed the number of graduate apprentices who set up their businesses is on the rise. Although they preferred highly accessible areas that guaranteed high patronage of their services the absence of such spaces due to inefficiencies in the urban land market or a lack of a clear regulation that addresses their specific needs have caused them to settle in areas that are available to them. It was also evident that the more concentrated the location of their activities are the higher the number of trips it generates across the urban space. Having gained insight into the phenomenon, proposals have been made as to how best the unmet space needs of the graduate apprentices can be met so as to mitigate the negative effects that results from unplanned, uncoordinated and unmet space needs.

Keywords Informal, graduate apprentices, space needs, urban management

BACKGROUND

The informal apprenticeship system in Ghana has over the years equipped and empowered many creative intelligent Ghanaians who for some extenuating circumstances had to drop out of the formal educational system or never had the privilege of pursuing formal education. Although the system made enormous contribution to human resources development, throughout the colonial and early post-independence era, the systems was scorned and tagged “marginal” until the insightful work of authors such as Hart (1970) proved otherwise. Since then these supposed “marginal sector workers” have been recognized as entrepreneurs. As subsequent research works indicated, not only have the views of authors on the then perceived “informal sector” changed, but rather it has become obvious that the sector is dynamic and evolutionary.

With increasing interest in the field, different studies were conducted in this area in the years that followed. Yet the contextual dimensions to the different research works blurred their definitional outcomes (Swaminathan, 1991). In 2002, the work of ILO, addressed the definitional problem and the related controversies that surrounded the concept through the scoping and disentangling of the many facets of the then “informal sector”. This however yielded a new nomenclature, the “informal economy”. The term informal economy has since become a more preferred terminology for the “informal sector” as the former is more embracing and better captures the many activities and workers who operate in the informal setting (Baah, 2007; Brown, 2006; and Portes, 1989). A discussion on the attributes of this “shadow economy”, from the perspective of Cheng and Gereffi (1994) and Portes et al (1989) is often done along social, political and economic lines. This has often embraced technology, extent of state control, among others.

Reiterating the words of McLaughlin (1990), which presents a summary of some of the generic features of the then informal sector including its skill transfer system, Suresh Munbodh acknowledged that the sector is flexible in that, it allows people to enter and exit economic activities in response to market demand; it is simple and sometimes takes place in precarious facilities; it has the ingenious ability to improvise products from scrap materials; a willingness to operate businesses at times and locations convenient to customers; and a tendency to locate in smaller markets, out of the reach of the larger firms.

These very attributes such as the potential it has to grow instantaneously; its location in precarious facilities and places; and the willingness on the part of its operators to locate in places deemed convenient and accessible to its patrons are the very features that have sometimes brought the informal economy including its apprenticeship system into open confrontation with city managers. Without apportioning blame, it can be said that many professionals in urban management positions have still not parted with the deeply entrenched theoretical neoclassical economic postulation that dwells on a formal economic order operated by the invisible hand yet within the purview of the state.

This lack of understanding has invariably led to a neglect of the informal economy in the allocation of urban resources including urban space. Without adequate space to operate, an informal system has emerged to cater to this unmet need without recourse to established planning and management standards, an obvious explanation of some of the urban planning and management challenges that are a common place in our cities. This paper seeks to investigate and provide an understanding of the perceived effects and casual relationship that exists between Ghana's urban space and the apprenticeship system. It specifically seeks to establish the intrinsic relationship that exists between where the apprentices live and work and its implications for mobility pattern within the city; the growing number of graduate apprentices, their locational preferences, and their implications for the planning and management of urban space. It also seeks to provide lessons for urban planners and managers regarding the allocation, use and management of urban resources particularly urban public spaces factoring in the needs of the informal economy.

AN EXPANDING INFORMAL ECONOMY IN URBANIZING AREAS IN GHANA AND THE CONTESTATION FOR URBAN SPACE

Urban space based on the context and orientation of a user can broadly be defined as either public or private. Madanipor (1999) for instance views private space as an area where strangers cannot enter without negotiation signified by actual or notional boundaries. By this definition, private spaces by their very nature are actual or perceived exclusionary spaces accessible and usable only with the prior consent of their owners. Going by the above definition one is tempted to define public space as an inclusionary and unrestricted space accessible to all without prior permission. Carr et al (1992) re-affirm the difference between public and private space using the notion of "common ground where people carry out the functional and ritual activities that bind a community whether in the normal routine of daily life or in periodic festivals". Other definitions that discuss this dichotomy have included areas such as parks, playgrounds, pavements, sidewalks among others as part of public spaces. This has been exclusive of spaces between buildings, vacant plots besides roads or river banks (Brown et al., 2006).

Although the demand for urban space by the informal economic activities varies in relations to the type of activity and its accessibility demands, the system manifests itself in urban space widely. By their nature, informal economic activities are either mobile or sedentary. Afrane (2007a) broadly classified informal economic activities into sedentary and footloose activities. Mobile or footloose activities include itinerant salesmen who have no defined space; those with mobile vans, trolleys and transporters; and hawkers within the CBD; and beyond, those along all commercial precincts and along transport infrastructure. The work that was done by Gerard's et al., (1998) in Ghana on petty trading in Kumasi revealed informal economic activities take three main forms: sedentary; mobile within the CBD; and mobile beyond the CBD, a confirmation of the above. Sedentary activities on the other hand comprise traders and artisan with shops located "in situ"; on and along pavements and streets and in communities; the clustering of informal activities in specific locations and sites with or without official mandate and finally home based activities.

The description given by Brown et al., (2006), another work that was based on Kumasi, in Ghana corroborates the above position. It indicated that the informal economic activities take place mainly near major markets, at lorry terminals or near them, along transportation routes, on pavements and on sidewalks. The same study noted that there is a high concentration or clustering of informal economic activities in the following locations in Kumasi: Kumasi Central Market (Kejetia Market) and its immediate vicinity and other satellite markets within the City; along the Kejetia railway line; vehicle repair or mechanics clustered in locations such as Suame Magazine and Asafo; Sokoban wood village, which symbolizes an agglomeration of carpenters and woodworker; whereas the woodcarver are located at Ahwia, along the Kumasi - Mampong road. The study added that these activities are mostly unorganized.

This notwithstanding, trading and other economic activities including informal ones takes place throughout the city, for instance as many as 801 enterprises were enumerated in just two communities in Kumasi by Afrane (2003). Although there has not been a census that captures the actual size of the informal economy, the statistics available suggests that the economy is growing and expanding consistently. For example, it is estimated that it currently employs about 75 per cent of the labour force in Kumasi, represents an increase from the 65 per cent figure that obtained as at 1990 (King and Braimah, 2005). The growth of the informal economic activities notwithstanding, little or no provision is made for them in terms of fulfilling their space needs. Boapeah (1994) confirmed this when he wrote that land use plans make no provision to accommodate the operators of these activities. On few occasions however, public health considerations has caused governments to internalize the externalities of the activities of the informal economy through the creation of specific sites or regularizing their locations, apart from these compromises they are mostly left on their own to realize their space requirements.

With such a wide chasm between needed and met urban space needs, most informal economic activities have taken advantage of underutilized or unmanaged urban public spaces be they spaces reserved for future infrastructure provision, which are unprotected; restricted areas under pylons, among others. The high affinity of the operators of informal economic activities for these public spaces is not far-fetched as the exclusionary and restrictive nature of private space has restrained them from settling on such private spaces. Such illegal occupation of public spaces has often resulted in confrontations between the informal economic activity operators and city authorities' (Baah, 2007). In other instance, inability of the patrons to find spaces in close proximity to where they live has contributed to the increase in commuting distances. This obviously has implications for urban traffic and sustainability of the city in terms of its carbon footprints.

Although there have been a number of insightful research works carried out on the informal economy of Ghana, there still exist a wide knowledge gap. Bridging this gap requires for instance a deepened understanding of the system, especially in terms of how graduate apprentices can compound the problems as they graduate and set up their own businesses to ply their learnt trades.

MATERIALS AND METHODS

The study is a buildup on other exploratory studies carried on Ghana's informal apprenticeship system. It sought to provide a new perspective to the discourse on informal apprenticeship system by establishing the space needs of the apprenticeship system and the useful relationships that exist between the locational choices of the informal economic activities and its implications for urban mobility and urban space management. It thus combines exploratory and descriptive methods. The research design strategy employed was the case study in view of the questions the paper sought to answer. The data for the paper was collected using a combination of quantitative and qualitative approaches. Structured questionnaires were administered to 162 entrepreneurs based in Accra who willingly participated in the study. Of the 162 participants, 98 of them (60.5%) were males and the rest, 64 (39.5%) were females.

By way of validation, Focus Group Discussions was also conducted. Four broad trades groups namely; wood workers; auto mechanics; textile and apparel; and beauticians and hair dressers were selected and enumerated. The specific informal trade categories enumerated were carpenters, hairdressers, mechanics and tailors and dressmakers. Although the initial idea was to proportionately allocate the questionnaires among the various trades using a quota of fifty questionnaires for each trade type, willingness to participate yielded a total of 162 participants with a response rate of over eighty per cent. In addition to the above, secondary data sources provided the framework for the analysis and interpretation of the data collected. In order to ascertain their specific space needs some measurements were taken in addition to what they indicated in their responses to the questionnaires administered.

RESULTS AND DISCUSSIONS

Demographic attributes of respondents

The mean age of the Entrepreneurs surveyed was thirty three years with a standard deviation of 2.25 years (95% C.I.). The youngest entrepreneur was twenty years old and the oldest was sixty years of age. Nearly two-thirds of respondents (59.9%) were aged between twenty-six and thirty-five years. A total of 1.2 per cent of respondents were aged fifty-six years and above while 5.6 per cent of them were twenty-five years and below. Majority of the respondents were males with females representing close to forty per cent. A good many of the entrepreneurs (44.4%) interviewed had been educated up to the Junior Secondary School level while 12.3 per cent had no formal education or had education only up to Primary School. With the exception of the only one who had

tertiary level education the remaining 6.2 per cent had a diploma (HND) as their highest educational attainment. Table 1 presents a summary of the demographic characteristics of respondents.

Table 1 Demographic attributes of respondents

	Frequency (N = 162)	Percentage (%)
Age (years)		
<= 25	9	5.6
26 – 35	97	59.9
36 – 45	47	29.0
46 – 55	7	4.3
>= 56	2	1.2
Gender		
Male	98	60.5
Female	64	39.5
Type of trade		
Tailoring	45	27.8
Hairdressing	38	23.5
Mechanics	41	25.3
Carpentry	38	23.5
Educational level		
No formal education	1	0.6
Primary School (6 years)	19	11.7
JSS (3 years)	72	44.4
SSS (3 years)	23	14.2
Vocational/ Technical Training	26	16.0
Higher National Diploma	10	6.2
Some University Training	1	0.6
Middle School	10	6.2

Source: Field Survey, 2012

Year of establishment of enterprises and their growth rates

A little over two-thirds of the enterprises surveyed were established between the periods of 1995 to 2006. A little over twenty five per cent of them were established during the periods 1983 to 1994 and the remaining three per cent within the periods of 1971 to 1982. Table 2 depicts the growth of enterprises recorded during 1971 to 2006. A simple breakdown of the number of new enterprises formed every year reveals that between 1971 and 1982, less than one new trained apprentice set up to ply the trade learnt. Between 1983 and 1994 however the figure increased to on average, nearly four new enterprises per year. This figure rose further to close to eleven new enterprises for the period between 1995 and 2006.

Table 2: years of establishment of Enterprises

Period	Number of established Enterprises	Percentage (%)
1971- 1982	5	3.1
1983- 1994	41	25.3
1995- 2006	116	71.6

Source: Field Survey, 2012

For the total period spanning 1971-2006, on the average, 4.6 new apprentices set up annually. This pattern suggests there is an increasing tendency for a graduate apprentice to set up a business at the soonest after graduation barring the presence of the two most dreaded obstacles namely finance, which was mentioned by fifty two per cent of respondents and space mentioned by forty per cent of all apprentices enumerated. For those who set up their own businesses to ply their learnt trade it took them between one to two years to locate and acquire their work space. Urban space, which is the focus of this paper, is thus a major unmet need of the majority of graduate apprentices in Ghana.

Nature and choices of business locations of graduate apprentices and their tenure security

Majority of the enterprises, sixty two per cent operated from a permanent premise outside of home and mostly away from where they lived. Some of these spaces were either private space such as undeveloped residential

plots, frontages of buildings leased out to these entrepreneurs with rent payable per annum or on monthly basis. Others were also renters of the work space built and once used by people who once plied the trade but have now switched jobs, these also paid rents. For these operators, the occupation of the land is largely with the consent of the land owner or shop owner. The common informal economic activities that used such spaces were dominantly carpenters and mechanics although a very few tailors and hairdressers used the frontages of private homes. For these individuals who leased or rented their operating spaces they paid rent that ranged between GH¢15 to GH¢50 cedis per month. Even for those who pay for the spaces they occupy, their location could be threatened if their willingness and ability to pay decline for any reason, as they are likely to face market induced eviction. On the other hand if the areas become earmarked for a new public infrastructure projects those who occupy such areas illegally or with the connivance of public officials are likely to be displaced. For those in the latter they are more susceptible since the mere removal of the said officer from office exposes them to eviction risk.

Still among those who operated from permanent premises, some operate on road reservations or lands set aside for public infrastructure provision in the future. Occupants of these lands usually have the consent of an individual(s) in administrative or political position. The latter come into the category described by King (2006) as those who get protection from Assembly officials who in turn gain political capital from these individuals. This cohort of operators, mostly enjoy guaranteed security of tenure so long as these individuals remain at post or in office thus minimizing the possibility of eviction.

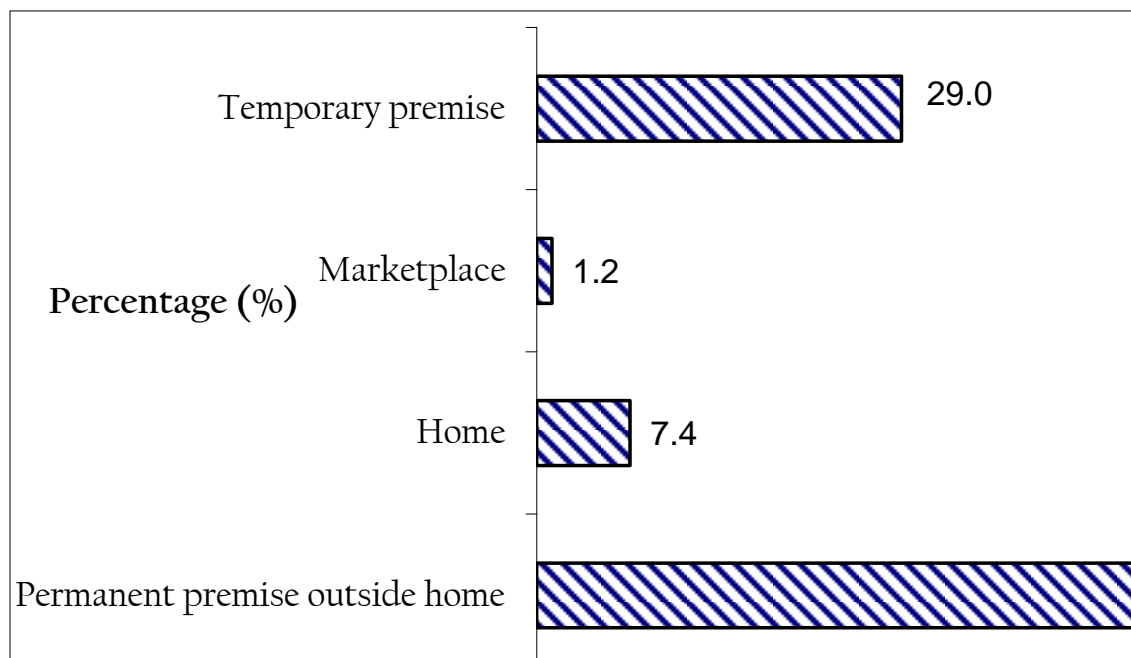


Figure 1: Nature of primary business premises used by Entrepreneurs

As noted in literature, operating from home or combining living and work space has been one effective way of addressing the space needs of some graduate apprentices. Although a relatively small number fewer than eight per cent of respondents operate from home, it gives credence to the observation made by Gerard's et al., (1998). Although such locations are relatively permanent, its tenure security is tied to the occupancy status of the operator. In the case of tenant, this correlates with increment in rent and upfront payment requests made by the land lord. This makes some home based operators susceptible to market induced displacement. The study discovered that home based activities were mostly hairdressing and tailoring, every day services that required locational proximity to the clientele base.

The twenty nine per cent who operated on temporary locations included mostly those who were operating on public land with or without prior consent or authorization. These lands can be put under two main groupings, those to be used for the provision of public goods in the immediate future and those with total prohibition on use. The later include marginal lands prohibited from use for the health and safety risks it poses to users of such spaces or areas that present known and insidious ecological risks to society as a whole if those spaces were utilized. These include spaces under pylons or high tension lines; areas close to river beds; among others. The precarious nature of such locations makes them the least secured in terms of tenure security.

Land area required by a graduate apprentice or entrepreneur by the various trade types

Having understood the challenges a graduate apprentice faces in terms of space acquisition and the vulnerability that results thereof, the paper proceed to assess the space needs of the individual trades. Table 3 presents the average land area required for the effective operation of the four different trade groups surveyed. It did not come as a surprise that mechanics had the highest space need. It also resonated well with the observation made that they were likely to settle on public spaces since their land requirement is difficult to be met in built up areas. Again the relatively little space requirement of hairdressing justified why it was often a home based activity. Based on the above facts, how much space will be required by the various trade types can conservatively be estimated. This was done using the following statistics obtained from the study such as the mean number of apprentices received per year; the mean number of apprentices graduating every year; and the total number of apprentices under study at the time of the survey.

Table 3: Average land area used by the various trades

Sector	Average Land Currently used (m ²) per trade	Standard deviation (m ²)
Mechanics	99.8	8.60
Carpentry	38.68	7.28
Hairdressing	26.84	4.65
Tailoring	29.00	8.01

Source: Field Survey, 2012

Employing a basic arithmetic progression formula, the total number of apprentices (y) to be admitted and trained by an entrepreneur over time (t) is given by the equation $y = \alpha + \beta (t-1)$ where α is the mean number of apprentices under study at any given time and β is the mean number of apprentices received per year. The total number of apprentices graduating over the time period (t) is y divided by mean number of years for an apprentice to graduate for each trade type. Using the summary presented in Table 4, the basic space needs of the various trades could be computed over time.

Table 4: Summary of basic statistics

Sector of Trade	Av. # of Apprentices received per year	Av. total # of Apprentices at the time of the study	Av. total # of male Apprentices at the time of the study	The mean # of years taken for an apprentice to graduate
Mechanics	2.06	4.92	4.92	3.00
Carpentry	1.45	3.74	3.74	3.10
Hairdressing	1.68	4.00	0.00	2.58
Tailoring	1.87	4.36	3.85	2.60

The travel distances between where graduate apprentices or entrepreneurs live and work

Given the fact that most graduate apprentices do not necessarily get their preferred locations in their choice making process, many of them have had to commute to work. The study also explored the commuting pattern of these graduate apprentices between their living and work areas. On the average, an apprentice covered a distance of four kilometers between where they live and work with a Standard deviation of 0.69 kilometers (95% C.I.) from home to their place of work. It was found that majority of the apprentices (74.3%) lived nearly five kilometers away from their places of work. Approximately four per cent of them travel a distance of fifteen kilometers or more to their places of work. The distribution of the distance covered from home to work place is depicted in Figure 2.

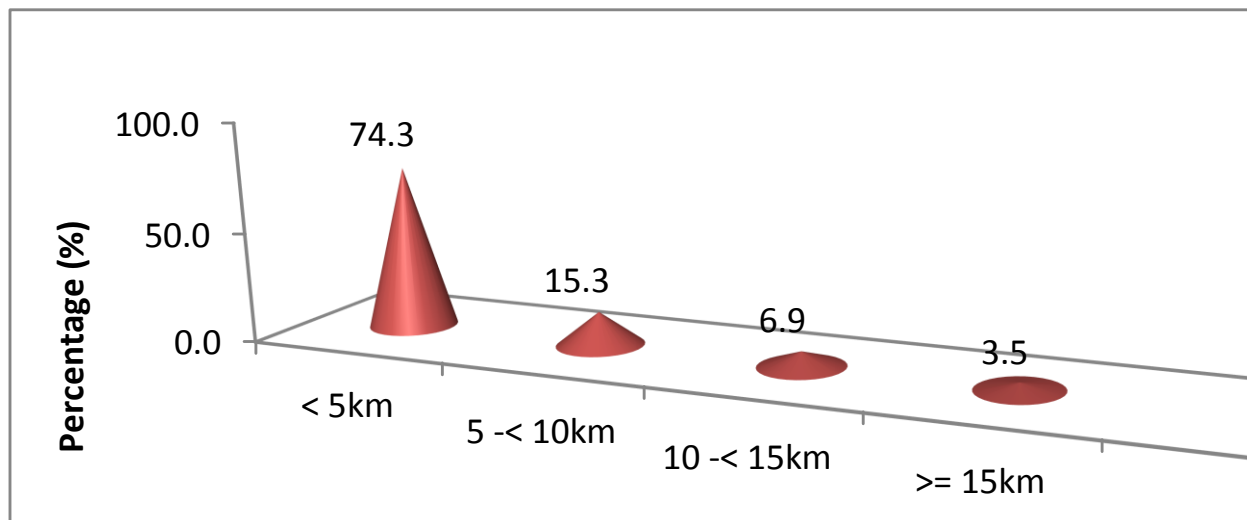


Figure 2 Distance from home to place of work

For a majority of the participants (fifty four per cent) their mode of transport was by walking whereas the remaining forty six per cent of them used public transport. Only 1.0 per cent of respondents went by their own private vehicles. A further breakdown indicates that seventy per cent of the respondents who lived within less than five km away from their place of work preferred to travel on foot to work each day. Table 5 shows the mode of transport used by apprentices to and from their places of work. The P-value of less than 0.05 imply there is a significant relationship between where live and works and the preferred mode of transport. For example the P-value of 0.00 shown in Table 2 suggests that distance from home to work place significantly influenced respondents' choice of transportation type. It can be inferred from the ongoing discussion that if apprentices had the option of choosing a work location in close proximity to where they lived, the number of trips generated might reduce. Taking those extra vehicles from the roads reduce peak hour congestion; saves the environment of the estimated 4.75 liters of fossil fuel that will have been burnt and the inconvenience of travel.

Table 5: The mode of transport preferred by respondents

Distance (km) from home to work place		Means of transport			Chi square	P-value
		By foot	Public transport	Private transport		
< 5	% within approximate distance from home to work place	70.0%	30.0%	0.0%	80.573	0.00
5-< 10		6.5%	93.5%	0.0%		
10-< 15		7.1%	85.7%	7.1%		
>= 15		0.0%	85.7%	14.3%		
% of Total		53.5%	45.5%	1.0%		

Source: Field Survey, 2012

The other angle to the commutation is its cost implications for the graduate apprentice. On the average, each of the apprentices who chose to travel to and from work by vehicle each day spent GH¢ 0.60 with a standard deviation of GH¢ 0.35 (95% C.I.). The minimum amount of money spent travelling to and from work by vehicle each day was GH¢ 0.20 while the extreme case (maximum) was GH¢ 2.50. Since this has to be paid at least five times every week, the long term effect is significant.

FINDINGS OF THE STUDY

1. Relationship between urban space management and the apprenticeship system

Given that every human activity takes place in space, growth in the number of graduate apprentices has obvious implications for urban space management. The study revealed that the number of graduate apprentices that set up their own businesses have appreciated in numbers since 1995. With an annual growth rate of 4.6 per annum, the space requirement is likely to increase in the coming years. Maintaining the status quo would mean these space needs are likely to be met either through negotiation and consensus reached between the graduate apprentices and private land owners or by encroaching on public spaces; ecologically sensitive; and or hazardous sites. With

the latter, the occupation might either be with the collusion of a state/public official who receives a bounty monthly or scores political points and in return offers protection against forceful eviction by state actors for as long as they remain at post.

Uniquely, the specific locations mostly selected by these graduate apprentices are those that offer high level of accessibility to their clients. Retention and continual use of these sites however depended on their ability to continuously pay their rent in cases where their occupation of the spaces is with the consent of individual owners of land. For those shielded by the public officials, their tenure security is conterminous with that of the said state/public official.

2. Relationship between the locational preferences of graduate apprentices, their places of residence and its implications for urban mobility

An apprentice's choice of location is influenced by a number of factors. Availability of the spaces in preferred locations, the rent charged, level of tenure security the location offers and more importantly the trade type. Generally, the observed locations that confirm what previous researches have noted mostly include along principal roads; frontages of buildings; undeveloped plots in residential areas; under pylons; on reservations for the provision of public services and infrastructure. Differences among the trade types in their choice of locations for their operations have been observed as follows: Whereas mechanics and wood workers/carpenters were more inclined towards using unprotected public open spaces; spaces under pylons; and in ecologically sensitive areas, tailors, dressmakers and hair dressers were more attached to working from home.

It also became apparent from the findings of the study that those master craftsmen do not predetermine who they train neither do they have the luxury to hand pick their apprentices. This invariably means graduate apprentices settle in urban space based on the availability of space in a given urban location. The implication of this is that graduate apprentices are likely to commute across urban space with the ominous consequences for urban mobility. The study identified as many as 74.3% of graduate apprentices commuted over five kilometers daily between their place of work and where they lived. At least four percent covered fifteen kilometers daily. The study also established there is a significant relationship between where a graduate apprentice lives and his/her preferred mode of transport. Apprentices who lived closer to their place of work were more likely to walk to work. This has positive implications for the personal health of the graduate apprentice and impacts less on the environment: thus reducing the city's ecological footprints. This notwithstanding giving the growing space needs, commuting among graduate apprentices is likely to increase.

Inadequate capital to finance their businesses was ranked first among the many obstacles to setting up. Yet for those who lived relatively farther from their place of work, they had to spend an average of Ghc 1.20 per day on their trips. This translates into approximately Ghc300 per year if a twenty two day working month is used as basis for computation. Planning to provide spaces for graduate apprentices where they live can significantly contribute to capital accumulation in the long term. This might result from saving made from commutation.

3. Space requirement for graduate apprentices and the lessons it provide for urban planners and managers in the allocation of urban space

Any attempt at tackling the urban management problems posed by graduate apprentices will come to nothing without appreciating their space needs. The study thus assessed the space requirement per trade type. The results of the study revealed that with the exception of hairdressers and in some cases tailors, whose spaces needs made it rather easy for them to operate from home, the others such as mechanics and carpenters required outdoor spaces. Mechanics especially required more than twice the space required by carpenters (38.68 m^2) and thrice in excess of that of hairdressers (26.84 m^2) and tailors (29.00 m^2). Such space needs makes mechanics potential encroachers of public spaces whenever their space needs are unmet. Contrariwise, the fact that the space needs of hairdressers and tailors can easily be integrated into home spaces provide useful information to planners and architects as to the hierarchy of spaces to create in response to the changing space needs for living and work.

RECOMMENDATIONS AND CONCLUSION

Recommendations

The presence of informality; encroachment on public spaces by some graduate apprentices is symptomatic of a failed market and in some instance government failure in the allocation of urban resource space inclusive. Without insinuating or arguing for market regulation, the authors make proposals aimed at addressing the inherent failures.

Having acknowledged the fact that the apprenticeship system is and still continues to be part of our urban system, planners and urban managers alike should come to terms with this fact. Such recognition provides an avenue for assessing their needs prior to designating and allocating spaces for urban activities. The study, for instance, identified that the rate of business set up was 4.6%. Besides the average space requirement per trade type, the duration of apprenticeship training and the rate of graduating apprentices have all been established. This information must aid planners in assessing the space needs of informal apprentices and integrate them into planning.

Failure over the years to address the space needs of the graduate apprentices can be blamed on the absence of clear guidelines on the operations of the informal economy in general and especially on the informal apprenticeship system. The presence of such a policy will among other things cater for their locational needs; address their space needs and regulate their operations in general. Such guidelines will look at the spatial distribution of the activities of the informal apprenticeship system; create opportunities for spatially balancing their spread. This will help place the trades within easy reach of patrons thus reducing their over concentration in some areas and the associated commutation and mobility concerns it raises. This will help in the identification of appropriate spaces within various urban locales for the different trade types. Such an action will engender cooperation between the graduate apprentices and public officials thus creating room for regularizing and regulating their operations.

The study revealed that the graduate apprentices are willing and able to pay for their work spaces if those spaces met their locational preferences. This provides a useful opportunity for public private partnership. The state institutions in charge of planning can liaise with private individuals with capital to develop workshops, showrooms with other ancillary services and rent it out to graduate apprentices. For tailors a big hall can be shared by members of tailors who specialize in different areas of their trade. This will promote the benefits that come with agglomeration. The graduate apprentices might then pay either a weekly or monthly rent.

Evidently, some trade types can easily be integrated into living areas- household's private spaces. The graduate apprentice has the dual benefit of paying once for the living and work space as well as providing security during the day. This knowledge should inform the ordering of spaces in building designs. In order to achieve this, future building designs will have to take into account the need to utilize the interface between private and public spaces within a residential unit. Planners, on the other hand, should consciously make rooms in their planning for the creation of semi-public spaces where necessary to accommodate especially activities that thrive in such spaces for informal apprentices.

Conclusion

As Ghana continues to urbanize, urban space will fiercely be competed for by the many activities that need these lands as a means to an end, graduate apprentices inclusive. Arguably, land will always be supplies to the changing urban needs yet its allocation through the invisible hand will be based on the principle of highest and best use. While on grounds of economic efficiency this is very justifiable, the externalities that result from the failure of the market to allocate non-rivalrous and non-exclusive goods provides basis for planning intervention. The study has provided insight into the potential effects unplanned, uncoordinated and unmet space needs of the informal apprenticeship system can have on urban management. Given the potential for growth (4.6%); the probable urban trips that might result from over concentration of their activities to very few locations; the insidious effects an unmet space needs might have such as settling on precarious locations flags the need for caution and action. Implementing some of the proposal made by this paper offers a good prospect to mitigating some of the likely effects.

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