

SPATIAL SEGMENTATION WITHIN METROPOLITAN LABOUR MARKET: MAPPING THE GENDER DIMENSION

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Abstract

Spatial segmentation of the labour market of informal workers within the metropolitan is observed globally. In India it is not only compartmentalised on gender, caste, ethnic lines but also geographically segmented by the creation of spatially disjointed markets. The differential impact of this limited mobility on female and male labour remains largely unexplored. The present paper argues that the labour market for informal workers is segmented into smaller labour markets separated by commuting (home-work) distance. Whereas all the workers are spatially entrapped, women are in a more disadvantaged position because their choice of employment is also limited by gender division of labour. Hence, the present paper has two objectives. The first is to map spatially fragmented labour market of smaller scale within a big metropolitan market. Secondly to highlight the double disadvantage women face due to spatial along with gender constraints. This paper will also try to understand the underlying causes very briefly.

The present paper is based on case study of labour market in Kolkata, the third largest metropolitan city in India. The labour market of Kolkata is dominated by informality of work which is segmented on the social, ethnic and gender line. This paper uses mixed methods based on data collected from field survey of 1000 households located in 4 different low income localities. The quantitative focus is on the variable like employment pattern, workers characteristics and human capital, commuting pattern (travel-to-work distance) taken from the survey. The qualitative part is focused on the perspective of selected worker to understand underlying causes. This paper will try to analyse the land use to understand how local availability affects market choice. The land use map used in this study is based on NATMO 1998 and Google Earth high resolution Map.

In the study it is seen that the average commuting distance (travel-to-work distance) of workers are much shorter than the metropolitan-wide scale. This is true for all the locations surveyed. Often the employment field around these 4 localities (residential areas) are non-overlapping. It is indicating towards the fact that the workers in the informal employment are spatially constrained. It creates small, segmented highly localised markets within the metropolitan city. Even within these micro-scale markets, women's spatial access is more constrained compared to men's. Men's choice is primarily influenced by the availability of jobs (indicated by surrounding dominant land use pattern) in the surrounding areas of their residential area. Moreover, a section of men (casual wage workers) have wide spatial access too. Women's choice is highly influenced by gender division of labour. It is seen that women from all the locations are concentrated in female dominated jobs (such as domestic help) and they work closer to home. This is indicating their double disadvantage where their choice is extremely limited. From the worker's response it is seen that this spatial segmentation is caused by the low wage rate that prevails all over the city and higher commuting costs further lowering the real wage. Another important reason is spatially restricted social capital with limited knowledge about distant locations. In women's case their social capital is solely limited to the immediate neighbourhood, thus further restricting their spatial knowledge and choice. Besides they have household responsibilities and safety concerns. Where men often chose to work near home to increase real wage, women are forced to take the jobs within their accessible space. Therefore, in this situation where both the gender is spatially trapped, women are in doubly disadvantageous position.

Keyword: Informal worker, Metropolitan labour market, Gender,

Introduction

In developing countries, the labour market is often segmented into formal and informal sector. By recent 19th ICLS of UN informal employment was given priority rather than informal sector employment. Indian economy is dominated by informality and informal employment occupies a large share in urban areas (Mitra 2004). Informal work is characterised by low wages, lack of security. Workers in this type of employment are generally lack in skill possessions. Generally the workers with low wages and lower level of skill possessions tend to

commute shorter distance (Hanson & Pratt 1992). It is often argued that labour market is segmented along the caste, gender and ethnic line (Mitra 2006; Banerjee & Bucci 1995; Banerjee 1983). In India it is not only compartmentalised on gender, caste, ethnic lines but also geographically segmented (Gupta & Mitra 2002; Shaw & Pandit 2001). But the spatial dimension and structure of labour market is not given much attention by Indian scholars (Shaw & Pandit 2001).

Again, gender difference in home-work distance and choice of workplace is a major component in the spatial segmentation (Hanson & Pratt 1991; Hanson & Pratt 1992; MacDonald 1999). Women tend to commute shorter travel and creation of highly localised segmented labour market (Hanson & Pratt 1992). The differential pattern of this limited mobility on female and male labour remains largely unexplored in case of developing countries.

The present paper tries to fulfil the gap in research on spatial segmentation of labour market. As the informal employment holds the largest share of employment in case of India, we focus on informal workers. Another reason to focus on informal workers is that they are low wages and lower level of skill possessions. Hence, the probability of creation of spatially segmented market will be more for informal workers.

The present study has two main objectives. The first objective is to map home-work links of the informal workers differential pattern for men and women workers within a metropolitan city (Kolkata Municipal Corporation) labour market. The second objective is to understand the underlying causes very briefly.

Spatial Segmentation of labour market and Gender

"Space and location do not simply provide a "container" within which labour market processes take place; space, place, location are integral to the processes themselves"(Hanson & Pratt 1992, p.374). Space is an inherent quality of labour market. The concept of spatial labour market defines labour market at different scales. At finest scale, the labour market operates at local level, often defined as local labour market. In general, the local labour market is defined as the home-to-work area. Because the home-work distance indicate the physical access to labour market which determines the segmentation of labour market (Hanson & Pratt 1992). It is commonly believed that labour market is segmented spatially by creation of self-contained local labour markets i.e. overlapping of home-to-work area and labour catchment area (the demand field from where the firm derives its workers). But local labour market is far from simple self-contained spatial entity separated by travel-to-work area. The boundaries of local labour market are fuzzy and much more complex, overlapped and interconnected. It is continuously constructed and deconstructed (Martin & Morrison 2003).

The process of spatial segmentation of labour market have conceptualised differently by various scholars. Many scholars have explained the segmentation differently. The institutional school of thought is given more importance in this study. The experience and knowledge of employers and employees are very location specific which leads to creation of highly localised labour markets (Hanson & Pratt 1992). Not only knowledge and experience is space specific, social ties and networks are also space specific which is best described as "for all workers, both men and women, the social ties of family, friends, and community are interwoven with the workplace in ways that contribute to the creation of localized, spatially segmented labour markets" (Hanson & Pratt 1992, p.396). A worker tends to concentrate in those workplaces where his/her social ties, professional contacts are/were working (ibid). Besides the social process some factors like low wages can produce shorter travel-to-work distances. Though it is generally uses to explain women shorter travel (MacDonald 1999), it can be applied to low wage and low skilled worker in general.

Gender and Spatial Segmentation

Women's working trip is much shorter than men's (MacDonald 1999). Women's working trip lengths are much shorter than men's because of their spatial entrapment. Spatial entrapment hypothesis states that women are segmented into highly localised labour market (Hanson & Pratt, 1992, 1995). Women mainly rely on their women contacts for job search. The gender biased network leads to their confinement closer to home (Hanson & Pratt 1992; Hanson & Pratt 1991). In this way women create much smaller spatially disjoint labour market, something like separate island within the metropolitan area. Besides, women tend to have more household responsibilities which limit their commuting preference. The HRH (Household Responsibility Hypothesis) says that women bears more household responsibilities and choose shorter commuting trips. It is seen that married women workers specially with children have considerable shorter work trips (Turner and Niemeier, 1997). In short women shorter commuting can be best explained (Rapino & Cooke 2011) as their lower wages and less skilled possessions; their concentration in female-type occupations (Hanson & Pratt 1991); their use of public transports; safety issues; trip chains to support non-work related travel (Kwan 1999); heavy household chore loads (Hanson & Pratt 1991; Hanson & Pratt 1992). Though all the theories are indicating that women tend to travel less than men, it is not always true. It is seen that sometime women tend to travel as much as men or

more. It is well explained by spatial mismatch theory (McLafferty & Preston 1992). Hence, women are double disadvantages because they are segregated into gender specific occupations, and they work closer to home.

Labour Market in Developing countries and informality

In developing countries, urban labour market is dominated by informal employment. In case of informal employment (both wage and non-wage sector), general education is very low. The low skilled worker's job search range is much smaller than a skilled or educated worker (Simpson, 1987). As the informal workers are less in educational qualification and skill possessions, their search field is limited. In general workers in informal employment rely on their social ties for job search. As knowledge is space bound which can lead to concentration of workplace. Contact based rural-urban migration often leads to settling of migrants to the area where their peer groups are. Contact based employment leads to choice of same workplace as well where their peer group members work. Hence they end up choosing work closer to their residential areas. Hence labour market is segmented physically (Gupta & Arup 2002). Village based solidarity exists in slums (Racine, 1990).

Women and informal employment is highly interlinked. Majority of women are engaged in various kinds of informal activities. Engagement in home-based work can also be seen in the light of spatial entrapment for women (Soni-Sinha 2011).

But there are very less research on space and labour market outcome for India. Hence, there is good scope for research in this field.

The Study

The present study is based on Kolkata Municipal Corporation, a metropolitan city in the eastern part of India. Kolkata is an old city established in the British period. "Calcutta (former name of Kolkata) was the product of an economic and political process imposed from outside India" (Banerjee 1990, p. 89). The city was created by British and all the economic and infrastructural developments were took place by them. The downfall fall of once prosperous city started in 1960s. Since late 1960s, the formal sector employment slowed down in West Bengal. The industries started closing down. Hence the then Left Govt in power have promoted informal sector to provide employment to the poor people (Sarkar 2006). The informal sector employment provided a living for the poor and helped them to escape unemployment (Banerjee 1990).

Kolkata is also known as the city of despire. The widespread of poverty, slums are situated here and there. The slums of Kolkata are result of huge immigration from neighbouring states like Bihar, Uttar Pradesh and Orissa. The in-migration created a social and cultural mosaic. As creation of job in organised sector is very less, the workers tend to rely on caste and language based social ties for job search. Hence the labour market is segmented in the line of caste, language, ethnic line (Bose et al, 1990). Even the residential areas are segregated on the basis of caste, language (ibid.). In this situation there is a strong possibility of the creation of geographically segmented labour market.

The present study is based on a survey conducted on slum dwellers residing in different parts of the city. Majority of the workers reside in slums of Kolkata are engaged in various kinds of informal work or engaged as informal employee in formal sector. Hence the slum dwellers were chosen as target group because our concern was to capture informal labour market. In this study, the residential neighbourhood is chosen as study unit to capture the occupational variety of workers. Hence the delineation of local labour market is done on the basis of the concept of 'employment field' or job search areas of workers from their residential areas (Vance 1960). The segmentation of local labour market is conceptualised as employment fields smaller than city scale and separated from each other.

Four blocks of slum clusters located in different parts of the city were surveyed. Jorabagan is located in the central part of the city, which is very near to Central Business District of Kolkata. Mitrabagan and Noongola, Dum Dum Road area is located in the northern parts of Kolkata. On the contrast two peripheral locations Purba Panchannagram and Shahid Smriti Colony, Panchasayar is located in the eastern and south-eastern part of the city.

Jorabagan area is located in the central part of Kolkata. This part of Kolkata is dominated by various kinds of *Bazaar* economy (markets of wholesale and retail trade), mixed residential areas with small household industries and commercial centres mixed with residential areas. *Bara Bazaar* (one of the central commercial market in Kolkata) is located within 1 km distance from the neighbourhood. Bara Bazaar and surrounding commercial area provide numerous opportunities for the slum dwellers. It is spatially connected with various bus routes, Circular Railway, and Metro services. The residents of Jorabagan slum cluster is a mixture of Bengali and Non-Bengali Hindus. Majority of the Non-Bengali population are chain migrants from neighbouring states like Bihar, Uttar Pradesh and Orissa. They have a fixed rented room in this area, where the migrants come generation after generations. Though there are migrants who migrate with their families.

Mitrabagan and Noongola (Dum Dum Road) slum area is located in the northern part of Kolkata. This slum cluster is old, and established before independence. This area is dominated by the various industries, hence the slum areas was put up for industrial workers. Due to continuous closing down of the factories in this area, this area has left with few industrial units and mainly surrounded by residential neighbourhood. This area is connected with bus routes. Dum Dum railway station and Metro station located within 1 Km from the surveyed blocks. The surveyed clusters were dominated by Bengalis. A considerable number of Non-Bengali families are present in this area. But most of the families are old migrants or second generation migrants. This slum area is has generally better in amenities and housing compared to other surveyed region. Generally all the slums located in this region have better amenities compared to other slums of Kolkata.

Purba Panchannagram is located in the eastern periphery of Kolkata. It is a newly settled area which is established around 40 years ago. The eastern periphery of Kolkata is rapidly changing in last two decades. The eastern periphery has a major connectivity route Eastern Metropolitan Bypass which connects the northern and southern parts of Kolkata. The surveyed slum cluster is located besides the E M Bypass. It is dominated by Bengali migrants from Bangladesh and southern part of West Bengal. There are a considerable number of Non-Bengali migrant populations residing in this area. In this area, it is seen that women's participation in labour market is higher compared to central and northern locations.

Shahid Smriti Colony, Panchasayar is located in the south-eastern periphery of Kolkata. It is basically rehabilitation colony, supported by Left Govt. This cluster is 36 years old from the time of survey. Some of the residents were living in nearby slum before the creation of this colony. But this cluster is dominated by Bengali Hindus who are migrants from the southern districts of West Bengal. Here, the participation of women in the labour market is noted highest amongst the four surveyed locations.

Database and methodology

The paper is based on a field survey which is conducted in Kolkata between January-April, 2016. This paper is based on data collected from field survey of 1000 households located in four different low income localities (mentioned in the previous section). A block bounded by roads from each locality with more or less 250 households, were selected from each location at random. All the surveyed locations have workers engaged in different types of occupations. The variety of work pattern will let us understand how different occupations have impacts on spatial dimension of labour market. The quantitative part of the survey is focused on variables like employment pattern, workers characteristics and human capital, commuting pattern (travel-to-work distance) taken from the survey. The qualitative part is focused on the perspective of selected worker to understand underlying causes. A section of workers from each location were selected for qualitative survey. The rationale behind the qualitative survey is to understand the socio-economic and behavioural process behind the spatial behaviour of economic actors.

Mapping the spatial labour market: Workplaces have been classified into two types. There are workers with fixed workplaces. Workers can have one or multiple fixed places of work. There are workers with no fixed workplaces. Generally self-employed service related workers and casual wage labourers have no fixed places of work. Some of the workers have a region where they work. This is particularly true for the mobile vendors, self-employed service provides, worker in public transport etc. The present study has included the workers with fixed workplaces only. In case of multiple workplaces, the average distance is considered. Workers with no fixed place of work are excluded from the present analysis. Studies regarding home-work distance used different methods. Some have considered straight line distance from home and work, where others preferred considering the travel route. Due to lack of information straight line distance between home and work is considered in the present study. To understand, the gender dimension of spatial segmentation, mapping is prepared for men and women workers separately. To understand the gender difference, average distances for men and women workers have been compared for each location.

Qualitative method has been used to understand various underlying process in segmentation of labour market. The responses of the workers have been used to support arguments.

Spatial Sub-Market within Kolkata Municipal Corporation:

Creation of spatial market smaller than a city-scale is the main indicator of spatial segmentation (Hanson & Pratt 1992). Hence, the first step of analysis is to understand the home-work linkages of workers engaged in different kinds of informal employment in Kolkata. The present section will try to map the employment fields of workers in different locations.

Table 1: Average distance of home-work in four different locations surveyed in Kolkata

	Jorabagan	Mitrabagan	Purba Panchannagram	Shahid Smriti Colony
Average distance from home to workplace (Km)	1.034	1.750	1.843	1.823

Source: Data Collected based on a fieldwork, Jan-April, 2016

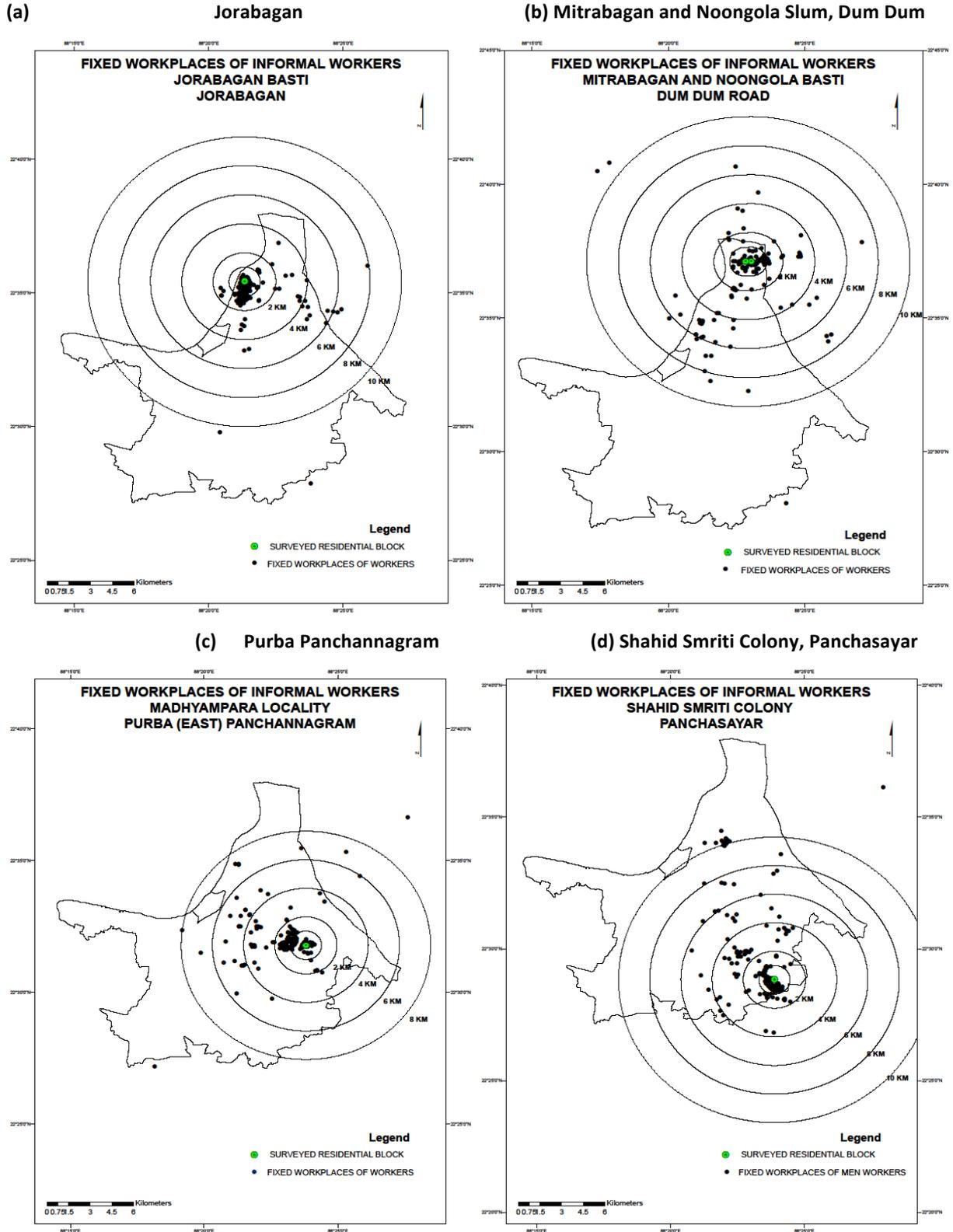
Proximity is an important attribute of the slum workers surveyed in Kolkata. It is seen that majority of the workers residing in slum areas prefer to work closer to home. The average distance of worker's travel to work is less than 2 km on an average (see table 1). In the maps (see Map 1), it is seen though worker travel to distant places, majority of the workers are concentrated in proximate to residential locations. The proximity to work is an indicator of the fact that labour market in Kolkata operates at much smaller scale than a city-wide scale. But there are places where workers share common workplaces. The local labour market separated by home-work area is not closed, it is often overlapped and boundaries are fuzzy (Martin & Morrison 2003).

It is seen that in Jorabagan, which is located in the central parts of Kolkata, has more compact 'employment field' around its locality. Majority of the workers (both men and women) work within 2 km distance (see Map 1a). Average distance travelled by workers is around 1km (see table 1). The reason behind the proximity to work can be due to concentration of various commerce and manufacturing units in the surrounding localities. Even the self-employed worker specially food vendors chooses proximate location because of surrounding commercial area. But workers from non-central locations (Dum Dum area) and peripheral locations (Purba Panchannagram and Shahid Smriti Colony, Panchasayar) have much higher average home to workplace distance (see Table 1). The workers in Dum Dum area on travel 1.75 Km on average (see table 1).the average home to workplace distances in Purba Panchannagram and Shahid Smriti Colony are 1.84 Km and 1.82 Km respectively (see Table 1). The average commuting distance is highest for Purba Panchannagram.

In Jorabagan, most of the workers workplace is clustered around Bara Bazar. The similar compact 'employment field' is seen for Uttar Panchannagram, a peripheral location, situated at the eastern part of Kolkata. Both men and women go to Topsia, a proximate location for work. Topsia has many leather tanning, bag and shoe manufacturing units. Men and women are engaged in various occupations in those units. Mostly they are hired as regular as well as contractual and casual basis. But the distance travelled by workers are more than what is found in Jorabagan (see Map 1a and 1c).

Contrary to the above mentioned patterns, the pattern formed in Shahid Smriti Colony, Panchasayar is similar to Dumdum.. The workers in these tow localities are not concentrated in few workplaces (as noted from Map 1b and 1d).

Map 1: Workplaces of Informal Workers in different study areas of Kolkata



Source: Data Collected based on a fieldwork, Jan-June, 2016

From the field survey, it is seen that the workers in informal employment tend to commute towards the central parts of the city. The workers, who don't find work in the nearby locations, tend to commute towards central part of the city. Hence the home-work distance is much shorter in central locality locations (for example

Jorabagan). Hence Jorabagan local labour market (home-work area) is more compact. In the newer (peripheral) part of the city workers tend to travel more distances, and mostly they travel inward (except for Purba Panchannagram). The central part of the city is dominated by Bazaars and mixed residential areas. The informal activities like bazaar economy and household manufacturing units are concentrated near the oldest part of the city. For example Jorabagan is situated very near to Bara Bazar market, a hub of wholesale trade and commercial zones. This area is a source of employment for all kinds of work. Hence the residence of Jorabagan basti, don't have to commute further. If the occupational structure is noticed, it is seen most of the workers are engaged in various trade and commerce related activities. the trade and commerce activities has facilitated the concentration of motorized and non-motorised freight transport activities. Similarly in U. Panchannagram, there are proximity of Topsis, a former hub of leather and tanning industry (Basu 1978). A large section of workers (both men and women) are engaged in this activities. On the other hand, rapid closure of the large factories in Dumdum and north Kolkata led the occupants taking different occupation among which driving, trade and commerce are predominance. In Shahid Smriti colony, Panchasayar, workers are concentrated available opportunities in high class residential areas nearby. This area doesn't have other employment opportunities. Hence a large section of workers tend to commute to the older part of the city.

This central peripheral dichotomy in spatial labour market is noted in work on motor vehicle repair industry (Shaw & Pandit 2001). In that study, the suburban location had wider labour shed (the region from where a firm receives its labour) compared to central city location.

Men and women's spatial labour market

Women are generally more spatially restricted compared to men (Hanson & Pratt 1992; Hanson & Pratt 1991; Hanson & Pratt 1995). In Kolkata the similar pattern is found. It is seen that women tend to commute lesser distance compared to men (see Table 2). Women tend to form 'highly localised spatially disjointed local labour market' (Hanson & Pratt 1992).

This is particularly true for Jorabagan (Map 2a) and Dum Dum locality (Map 2b). In these two locations, majority of women tend to work within 1 km radius from their residential areas (see Map 2). The average distance to work of women workers in Jorabagan is 0.25 km which is lowest among all the locations. This is followed by women workers in Dum Dum area of 0.62 km. Both are located in the older part of the city (see Table 2). The former is located in the central part of Kolkata where the latter is located in the northern part of Kolkata. But the difference is that both men and women tend to commute very less in Jorabagan (see Table 2). But in Dum Dum area, men tend to commute to further locations, where women tend to work in neighbouring areas (see Table 2 and Map 2b). Even the gender difference in average home to workplace distance is highest in Dum Dum area (see Table 2)

On the other hands, in peripheral locations like Purba Panchannagram (Map 2c) and Panchasayar (Map 2d), women tend to commute larger distance compared to women workers in former locations (see Map 2a and 2b, Table 2). In Shahid Smriti Colony, Panchasayar average distance commuted by women workers is highest i.e. 1.57 km (see table 2). In Shahid Smriti Colony, Panchasayar, few women commute more than 10 km. they come to Sealdah, a railway terminal situated in the central part of Kolkata to work as domestic maid (mainly on part-time basis). Though they travel more compared to women in two former locations, their travel distance is lesser than shorter than men's (of this residential area). The commuting distance noted longest for women workers in Panchasayar (Map 2d). Even the gender difference in commuting is lesser in these two locations. The least gender difference in average distance commuted is found in Shahid Smriti Colony, Panchasayar (see Table 2).

Table 2: Gender Difference in Home-work distances in four surveyed locations, Kolkata

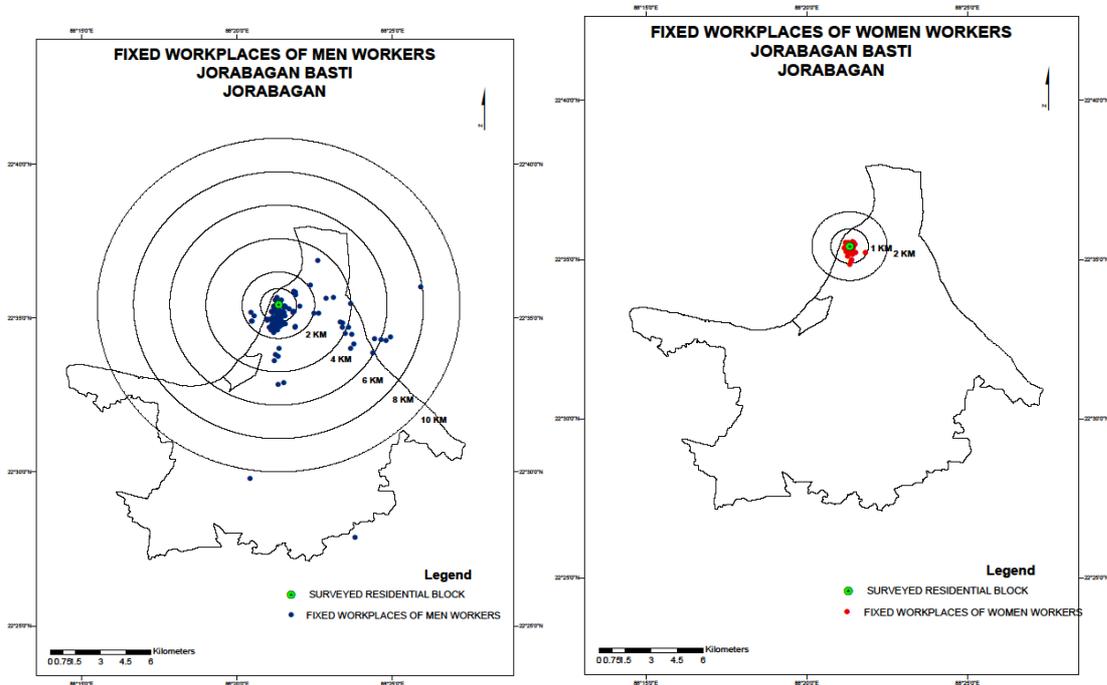
	Gender	Jorabagan	Mitrabagan	Purba Panchannagram	Shahid Smriti Colony
Average Distance from Home to work (km)	Men	1.303	2.076	2.426	2.301
	Women	0.248	0.620	1.263	1.573

Source: Data Collected based on a fieldwork, Jan-April, 2016

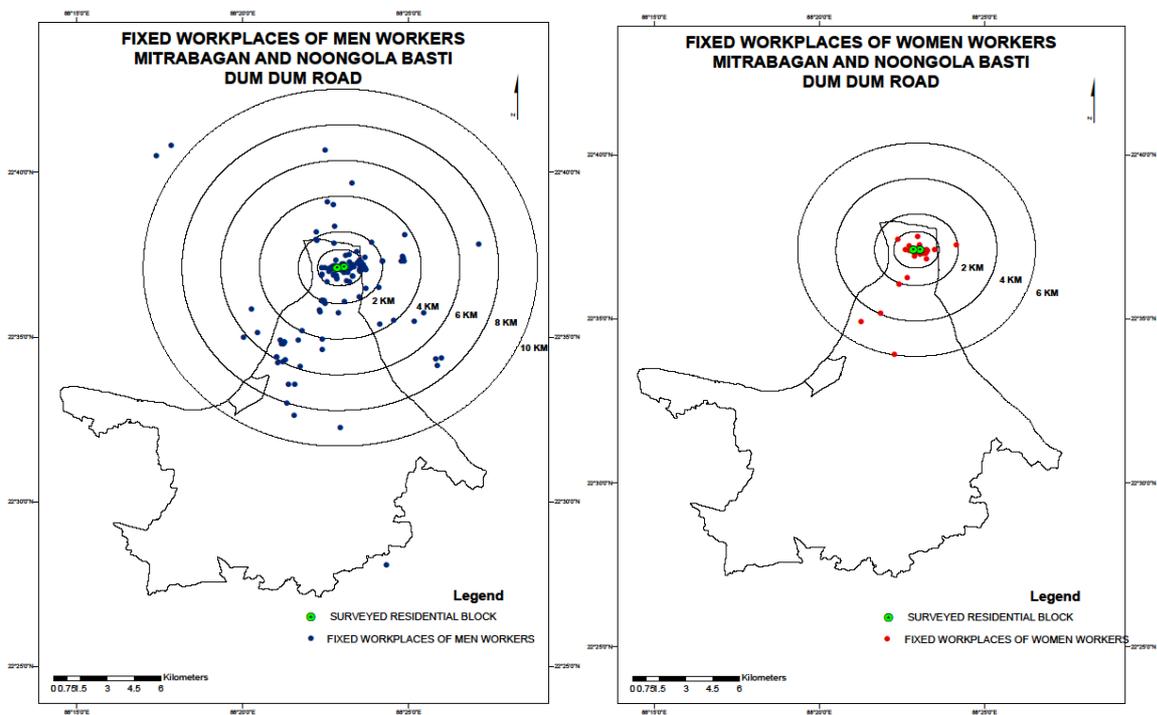
Hence, it can be said that the local labour markets (separated by home-work area) for women are spatially disjointed (see Map 2). They create spatially segmented market separated by highly localised labour market. In case of men, though they choose proximate location, a large share of men commute longer distance specially to central parts. The labour shed for central parts of Kolkata, where the informal manufacturing and

commercial activities are concentrated attract men workers from distant location. But women workers from all the location tend to work nearby locations

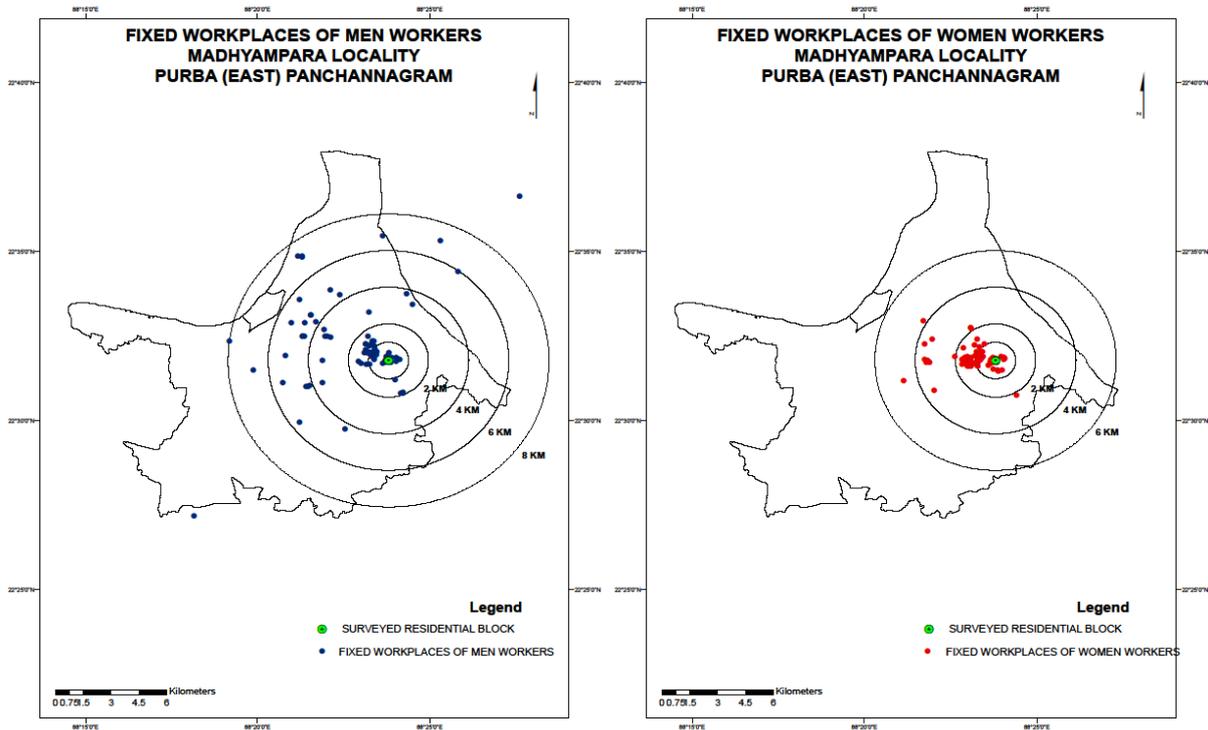
Map 2: Gender and Workplaces in Kolkata Jorabagan



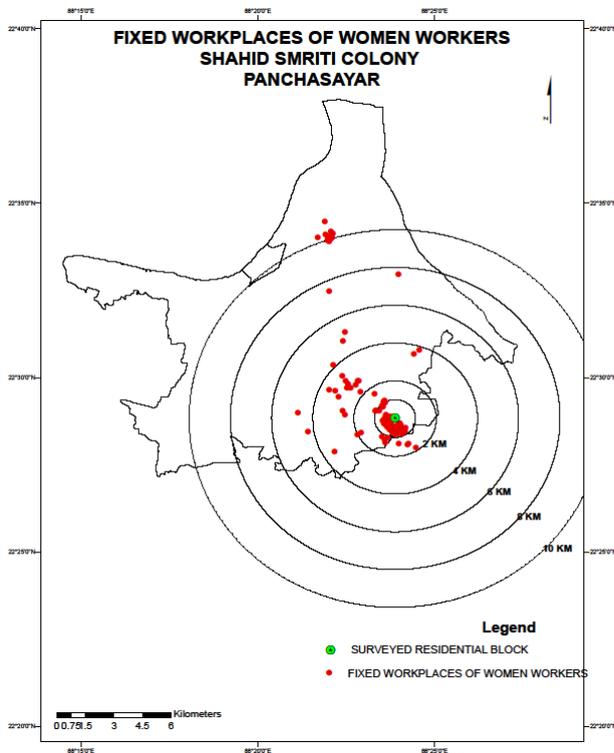
Dum Dum area



Purba Panchannagram



Panchasayar



Source: Data Collected based on a fieldwork, Jan-April, 2016

Factors affecting their choice of location of work: Analysing the worker’s perspective

In the above sections three major patterns are noted. First, proximity is the most important attribute for informal workers. Second, the workplaces of a residential unit are clustered around few places Generally,

proximity and concentration of workplaces overlaps. Last, stark gender difference in creation of local labour market. This section will generally discuss the factors that affect the choice of workplaces and clustering workplaces. The next sub-section will try to explain why workers tend to work in close proximity with special reference to gender.

Effect of Social Ties- Social ties not only plays important role in choosing employment, but also place of work. Place based social ties create place specific knowledge or experience which is a major cause of geographical segmentation of local labour market. Generally workers tend to choose workplaces where their contacts are working (Hanson & Pratt 1992). The neighbourhood based contacts plays an important role for women in choosing employment as well as place of work (ibid.). Social capital can explain the concentration of workplaces. Majority of the workers surveyed in Kolkata have mentioned that they got the job/information about the job from their contacts. Majority of their contacts were from their neighbourhood. Migrants generally use contact based job search method. This is particularly true for chain migrants in India (Banerjee 1991; Banerjee 1983). In Jorabagan most of the workers work in Bara Bazaar area or its surroundings. For example, in Jorabagan, the lower caste migrants from Bihar works as unskilled manual workers in immediate surrounding markets such as Posta wholesale market.

One of the worker mentioned that *"I came here following my uncle... He also lives in this locality and works as a loader and unloader in Posta.. I have other co-villagers who work as loader-unloader in the same area. I have no idea about other workplaces"*.

The regular salaried workers also get their job from their contacts, mostly older family members or friends. One of them mentioned *"My father used to work as salesperson in a saree shop in Bara Bazaar..he talked to his employer about my job"*. Similarly women workers in leather factory in Purba Panchannagram get their jobs through personal contacts. One such worker mentioned that *"Whenever I want job, I ask my neighbours (women)..when work is available they bring me to their workplaces"*. The similar process occurs for domestic workers in all the locations. Hence in a personal network based hiring process, workers tend to concentrate in the workplace where they have some contacts. In case of self-employment, the choice process is guided by information gathered from their social ties. One of the food vendors in Purba Panchannagram mentioned that *"I used to go there as my brother-in-law use to do his business in this area"*. Other food vendor in Jorabagan mentioned that *"My father used to sit in that location"*.

The location of Work/Proximity- Majority of the workers have mentioned that proximity was an important criterion when they chose work and workplace. Most of the workers tend to choose the work which is locally available. The workers in Purba Panchannagram mentioned that *"we try to choose working close to home"*. Some workers tend to choose locally available jobs instead of commuting further. Some workers in Dum Dum area are shifting their employment to cope up with the local shortage. They have started working as shaufer in local residential households. One young man who works as chauffer in neighbouring residential complex told *"we can easily find job as shauffer in this location..the neighbouring area has high demand for shauffers"*. But the workers, who wanted different types of work, prefer to go further for work. One young gentle man who works as a salesperson mentioned that *"we don't find decent employment in surrounding locality..everybody is becoming shauffer in this locality..I wanted to do something else"*.

Proximity is the most important factor for women.

The location factor/local availability- Location plays an important factor in creation of home to work travel distance. If jobs suitable for less-skilled workers are locally available, then the commuting distance will be lower. It is seen that workers in centrally located residential unit, tend to commute less compared to not centrally located units. In the central parts, opportunities are more. It is the crowded zone very suitable for petty traders and other personal service provider. Clustering of small enterprises provide employment for large number of workers. One worker in Jorabagan said *"We can find jobs easily in our immediate surroundings..Bara Bazaar is the hub of jobs..People from all location are coming to Bara Bazaar for work. Why should I go to anyplace else"*.

The city centre is thus a lucrative option of commuters from suburbs and rural hinterland. Hence, the workers in peripheral areas, who don't find jobs locally, tend to commute to the central parts. For example, many workers in Dumdum road area travel to central area because of the local industrial units are declining and there is shortage of employment in immediate surrounding area.

Communication network- The spread of employment field is along the major transport routes, which is accessible from the residential areas (Map 1). Hence, transport facilities is a major influencing factor in

commuting and choice of workplaces. Cheaper commuting facilities can inspire workers to commute further locations. In case of Shahid Smriti Colony, the spread of employment field is along the nearby railway route upto Sealdah, a major railway terminal.

Categories of Workers- The local labour market is variable for different categories of workers such as different for gender (Green et. al, 1986, cited in Martin & Morrison, 2003) and occupations (Casado-Diaz, 2000, cited in Martin & Morrison, 2003). The gender difference is noted in previous section. The workplace is dependent on the type of work the workers are engaged in. Women are mainly engaged as domestic servant on part-time basis. In domestic duties, maids are often engaged as part-time workers and they work in more than one household. As walking is their mode of commuting, their workplaces are also close to each other.

Characteristics of the neighbourhood- The characteristics of the neighbourhood influence the commuting distance of the workers. Generally the neighbourhood with better livelihood and higher aspiration commutes further. This is true for Dum Dum area. The local residents specially Bengalis of this area has higher education, Hence they have spatially wide network (most of them are classmates from school or college). More educated people will be willing to commute larger distance as they have higher aspiration. In this way, the neighbourhood are better connected with other places. The workers have more spatially wide information. Hence, it is generally noted that people have information about works located in other parts of the city. the neighbourhood with generally low education level have more spatially constrained networks and tend to work closer to residence. But this is not always true. In case of Shahid Smriti Colony, women from most of the household go for work. They keep their child at home under the supervision of older ones. The domestic servants surveyed in Panchasayar area commute more than 10 km to Sealdah for work.

Not only the commuting or work culture, the composition of neighbourhood determines the commuting pattern. In Bengali families women are less spatially restricted compared to Non-Bengali families. Hence the Non-Bengali dominated older region may have formed the culture of women's less participation in work and work closer to home.

Reason for choosing nearby locations

Preference for proximate workplaces is an important attribute that prevails in less-skilled workers (Hanson & Pratt 1992) and women (Hanson & Pratt 1992; MacDonald 1999) in general. The proximity to work leads to creation of highly localised spatially segmented labour market. As in the previous section, it is seen that majority of workers works in close proximity. Specially women worker tend to work in their immediate surroundings. Here are some factors effecting choice of proximate location-

Cost Benefits- Most of the workers has mentioned the cost benefit of working at nearby places. The wage rates are very low in case of informal sector work (Marjit & Kar 2009) and other informal employment. In a review of women's lower commute Macdonald (1999) has mentioned that wage constrain is a factor women lesser commute. The similar situation can be applied to informal workers. Hence they prefer jobs which are locally available and try to save on the commuting cost and the cost for having food outside if they work at distant locations. If they work closer to home they can come home at lunch break and can save cost on food. Hence, by choosing nearby workplace they increase their real wages. One worker in Purba Panchannagram stated that *"I come back home for lunch. In this way I can save Rs 50 per day"*. When they are asked about the prevailing wage rates at distant locations and opportunity costs, they often mentioned that they think the wage rate are same all over the city, hence there is no benefit for commuting further.

The workers who commutes further have stated reasons like good relation with the employer, lack of availability of desired employment locally. One worker in Dum Dum Area has mentioned that *"My employer is very good. Hence I prefer to go the workplace"*.

Another worker in Jorabagan has mentioned that *"I have worked for the employer for past 30 years. He treats me like his own family member...Everyday he used to picks me up from my home and drops me back..Now even my employer is no more I feel like a family in my workplace"*.

Some workers have changed their residential areas after joining the present employment, hence they have to commute long distance after change of residence.

This factor affects both men and women. But women are affected more because women tend to get even lower wage.

The reasons which are most important for gender difference are as follows-

Household responsibilities- The dominant reason cited for women's shorter travel is their household responsibilities. Women have multiple roles, outside home and inside home. Their household responsibility is much more compared to men. It is seen that married women tend to commute shorter distance due to heavy family responsibility (Turner and Niemeier, 1997, MacDonald, 1999). Hence, women choose proximate location for work. They mostly engage themselves in part time activities, such as part time domestic servants in more than one household. But they have mentioned that in this way they can come home at lunch time and do the household chores. They often choose workplace within 15-20 min walking distance. This is particularly true for married women and with children. "The expectation is that men, especially married men, will have longer commutes because of their traditional role as family provider, which is associated with fewer domestic responsibilities and higher labour market status and, therefore, more flexible mobility" (Rapino* & Cooke 2011, p.278). A domestic servant in Panchsayar mentioned that *"I leave my children of their own. I have to come at lunchtime to look after my children"*. Another woman in Purba Panchannagram has mentioned *"I chose the workplace because in case of any requirement of children I can come home immediately"*. Women workers, who are sole earner of the household often choose full time work and commute further. This is to support their family and to earn more. One worker in Purba Panchannagram mentioned that *"I have to work. I have no choice left. I am the sole bread earner in this family"*. This statement is indicating towards the fact that women secondary role in the labour market is a factor why women have more household responsibility and forced to work in proximate location.

Gender difference in social network- Women tend to have contacts with women and receive information about jobs from other women. As women prefer working closer to home and use of their gender biased network for job search lead to concentration of women workplaces closer to home. Spatial dimension of job contacts is important in development of localised labour market (Hanson & Pratt 1992). Women's spatially restricted networks explain their highly localised labour market creation. Most of the women workers in Kolkata are introduced to their first employer through their neighbours. Even, majority of the workers use the contacts of their immediate neighbour. One domestic worker in Jorabagan mentioned that *"The aunty living next to our room introduced me to my first employer..Then I arranged other work over the time"*. This is the similar story for other workers of this locality and other localities.

Though neighbourhood based contacts are a major source in providing employment, men workers have friends, ex co-workers present in other parts of the city. Most of the women worker (from all locations surveyed) have mentioned that they get labour market information from other women of the neighbourhood. Most of them have no contacts outside neighbourhood.

One worker in Purba Panchannagram mentioned that *"I don't know any person outside this neighbourhood..I know some workers in the area where I work..But don't know them personally..I tend to ask my neighbour if I need a job"*.

For regular workplaces, though they have co-workers, they don't keep contacts with them. On the other hand, previous co-workers are important network for men. Hence women workers have very spatially restricted information about labour market. Though they mention that they choose working in proximate location, they are actually spatially confined by their restricted contacts.

Gender division of labour- It is seen that labour market is highly segmented on gender line. In the surveyed location it is seen that women are concentrated mainly as domestic servants irrespective of their residential location. In the previous section, it is mentioned that the choice of workplace is highly affected by the type of work. Women' type of jobs are spatially evenly distributed compared to male type jobs (Hanson & Pratt 1992; Hanson & Pratt 1991). As women are concentrated in women's type of jobs which is locally available, they chose work closer to home. Again the domestic service workers are employed in more than one household as part-time basis. Part-time workers commutes lesser distance than full time workers (MacDonald 1999). Women are mainly engaged as domestic servant on part-time basis in more than one household. As walking is their mode of commuting, their workplaces are also close to each other. They chose to work closer to home. Working closer to home allow them to come home at lunchtime to perform their household chores. Men engaged in men's type of jobs or gender neutral jobs, tend to choose workplaces where their contacts are working. Hence the segmentation on the line of gender leads women to work in certain types of work. This leads their choice of workplaces very close to home, leads to spatial segmentation.

Conclusion

It is evident from the field survey that the labour market for informal labour is segmented spatially. From the quantitative part of the study, it is seen the average home-to-work travel distance is much shorter than the

city-wide scale. Majority of the worker works closer to home creating a highly localised market. It creates a micro scale segmented market smaller than a metropolis. The commuting pattern is also location specific. The central-peripheral difference in commuting pattern is somewhat similar to the spatial mismatch theory. While the centrally located workers are more spatially confined, the peripheral workers are more spatially well distributed. But many workers from peripheral areas travel to central parts of the city. This region is a receiving region of workers from peripheral areas. Hence the average distance travelled by the workers in peripheral areas are more than the central part of the city. This is indicating towards the spatial mismatch hypothesis.

Women are more spatially constrained than men's. In the present study, though men workers travel to further distance, women workers are heavily clustered to their immediate surroundings. For women workers, labour market is highly localised. They form spatially disjointed island like local labour market within a Kolkata. "Women make decisions about commuting under a different set of constraints than men" (MacDonald 1999, p.281). For women also, the location plays an important role. The local labour market for women in central and northern part of the city is much compact than other two peripheral locations. Peripheral women workers tend to commute further distance compared to women located in older parts of the city.

It can be concluded in general labour market for informal workers operates at much smaller scale than city-wide scale. It is prominent that women are more spatially constrained than men. Women's labour market is visibly spatially segmented than men's. But the segmentation and commuting process is decided by the location within the city. Where the local availability is more workers tend to create spatial niche compared to other locations. From the commuting pattern it is seen that though centrally located residents employment field is limited, but the central part of the city has a wide labour shed region. Hence the segmentation dynamics can only be understood when the demand side will be analysed. There is a scope for future researchers to analyse the demand side to understand the complete spatial dynamics.

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