



## **Formal-Informal Linkage and Tie up of Informal Labour: A Study Focused on Gold and Jewellery Industry, West Bengal, India**

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### **Abstract:**

*To explore the relationship between formal and informal economies has become much significant due to the expansion of the informal economy in the developing nations. With Globalization and liberalization, the international value chain and formal-informal linkages in production at different points within the chain, became all the more a significant site for exploration in the informal sector literature. This paper is an effort to explore the on-going formal-informal linkage models existing in West Bengal informal industries. To reveal this, the study is confined to Bengal Gold and Jewellery industry. To do this, the study refers to a significant problem of the industry - extensive out-flow of skilled workers. The study also detects an informal mode of solution as prescribed by the industry in order to solve the problem. The solution comes in the form of another linkage appearing in the component of wage payment. The logical argumentation of the present study has been confined to case studies conducted, and primary survey results. The micro-level field surveys, sampling design and data analysis of the study are based on the standard model approach to accept spatial heterogeneity.*

**Keywords:** Informal sector, location, globalization, mobility, linkage  
**JEL Classification:** E26, F02, F22, J61, R23.

### **1. Introduction**

This paper is an effort to detect the nature of formal-informal linkages in the specific localized industry in West Bengal. It is becoming increasingly significant to explore such linkages due to the rising importance of the informal economy in the developing economies – not only in terms of employment, output and exports but also due to diversified relationship between the formal and informal ones. It is often observed that many of the formal sector industries in the developing countries are engaged in outsourcing of production to the informal production units and services through and adhering to inferior work conditions to them. The present study is an attempt to explore the nature of formal-informal linkages in case of boisterous Gold and Jewellery industry in West Bengal which inherits intricate production linkage between formal and the informal. A significant feature of the industry is that while retailing of the product is a formal sector activity, production appears through informal labourers with sub-contracting, putting-out and outsourcing of production to ancillary informal production units with informal labour market processes. The present study is an attempt to explore the nature of such linkages and their economic implications.

### **2. Methodology of Analysis**

The logical argumentation of the study is based on literature support, case studies and primary survey results. The survey process is exhaustive. The survey is based on qualitative purposive sampling with semi-structured questionnaire and indirect interview method. The micro-level field studies, sampling design and data analysis are based on the standard model approach. The implication is that the selection of any sampling region does not depend on data availability (or non-availability) and avoids spatial homogeneity. The study further assumes that the production units of a cluster within an industry are non-homogeneous in nature. However, the spatial distribution of production units of a single industry is cross-sectional, given and known. Sometimes an ethnographic study has been approached due to data non-availability and data non-responses in the sample survey area under the purview of the study.

### **3. The Formal-Informal Linkage Literature**

In the 1970s, the theoretical discussions and micro-level studies on the nature and existence of formal-informal linkages follows suit by King, 1974; Breman, 1976; Bose, 1978; Bienfield, 1975; Weeks, 1975; Breman, 1977; Papola, 1978; Tokman, 1978; and

Peattie, 1980. Such studies identified that the linkages between the two sectors were basically exploitative in nature for the informal sector. With Globalization and liberalization, the international value chain and formal-informal linkages in production at different points within the chain became all the more a significant site for exploration in the informal sector literature [John Harriss, 1990; S. V. Sethuraman, 1992]. These studies, however, noted that the nature and effect of linkages were neither wholly beneficial nor wholly detrimental for growth of the economy. The two significant observations emerged herewith are: first is the notion of a production continuum instead of two compartmentalized sectors of formal and informal, and the second one is the prevalence of intermediaries taking active part in linking economic activities of the two sectors. With these, the problematic of informal-formal linkage has become much more complex to explore. New empirical realities, such as globalization, market reforms, growing prominence of the informal economy in production and service sector activities, and the crisis of the global (formal) economy, have influenced the relationship between formal and informal economies and their roles in economic development in recent past (Meagher 2013).

The rational individualist approach attempts to explain such linkages in terms of the 'paradox of a relatively flexible labour market accompanied by a very large informal sector', in which labour movements between the two sectors are not wholly determined by regulatory incentives but by individual decisions to maximize income and flexibility by opting out of taxation and costly social protection arrangements. Thus it deals with voluntary exit of the formal economy (Maloney 2004), segmentation and exploitation of informal labour markets (Perry et. al. 2007), a situation of perverse incentives created by distortions in formal security arrangements (Levy 2008), and expansion of a 'poverty trap' with negative contribution towards growth (Meagher 2013). To the literature, the workers refer a voluntary choice regarding employment in either of the sectors (Levenson and Maloney, 1998; Maloney, 2004; Perry et al., 2007).

Within the perspective of the structuralist approach with "linkages as mechanism of institutional design", the labour market structures often shape the nature and effect of linkages between formal and informal economies. This appears by using quantitative (Kanbur and Guha-Khasnobis, 2006; Devey et. al., 2006; Marjit and Maity, 2006) as well as qualitative (Harriss-White and Gupta, 2001; Breman, 2010) methods. Such studies consider the structuralism in which the labour market co-production appears from the "bottom of the pyramid" linked to social protection of labourers (Devey et al. 2006; Chen 2006), hence challenge the voluntary entry model of the rational individualist approach.

Guha-Khasnobis and Kanbur edited book "Informal Labour Markets and Development" (2006) has focused on the role of informal labour market structures where markets are 'interlinked and subtle in complicated ways'. Qualitative mapping of formal-informal labour linkages by sub-contracting, putting out and casualization have intensified poverty and vulnerability of the informal sector labourers in spite of high levels of labour mobility [Breman, 1996; Harriss-White and Gupta, 2001; Breman, 2010]. In this, linking informal labour markets to the formal ones transforms informal institutions of labour control to more exploitative contracting and tied-labour kind of relationships. Ranis and Stewart (1999) and Pieters et al. (2010) in their studies have divided the urban informal sector into a traditional sector and a modern sub-sector.

#### 4. The Gold and Jewellery Industry

In the context of the vast and on-going literature of formal-informal linkages, the present study focuses on the localized industry of Bengal Gold and Jewellery, whose production is totally a labour-intensive process. Skilled artisans produce fine hand-crafted jewellery from raw gold as the input, using minimal traditional tools at the shop floor. The shop floor is often owned by formal sector producers and there is division of labour in production. The skilled informal labour is engaged in production by the formal sector, mostly for escaping environmental laws and labour standards. Taking advantage of the labour intensive nature of jewellery production, where production can not be done by machines - employment of cheap labour from the informal sector by the formal sector producers reduces cost of production to a large extent.

Heterogeneous formal-informal linkages of the Bengal Gold and Jewellery industry cannot be categorized by traditional and modern sub-sectors. The primary reasons are:

- (a) The production of the industry is a process of transformation of raw material into final product (raw gold is turned into jewellery) and involves mere value addition; and
- (b) The value addition to gold is totally a labour intensive activity - artisans deft in the craft work of carving out intricate designs make value addition to the raw material with simple tools and traditional methods of production without scope for any mechanization.

The price of the final product of the industry is determined on the aesthetic value of the hand-work of the artisans over and above the cost of gold used as raw material. Pricing depends on the value-added, where only labour cost and cost of the raw material matters. While the variable cost component is payment to labour (however, wages remain more or less constant), the cost of the material (raw gold) varies with the international market price of gold. The influence of fixed cost on equipments is almost negligible in case of gold and jewellery compared to other industries.

With sub-contracting to informal production units, living space of the workers becomes their work space and except for charges on electricity no other infrastructural expenditure becomes significant. Rather we find several types of links to exist. Thus, modernized informal production in terms of capitalization, infrastructure or use of technology is not possible in the jewellery making industry in West Bengal in the immediate future. The production is labour-intensive and industry is largely traditional and static.

#### 5. Different forms of Production Chains

In order to understand linkages between informal enterprises and formal firms in the Bengal Gold and Jewellery industry, it is important to consider the nature of the production system through which they are linked within this industry. For this, it is necessary to notice some special forms of production chains that operate within the industry. This is important since the nature of

the linkage varies according to the nature of the chains within the production system. Such production chains of the industry include the followings:-

#### 5.1. Own Account Operators

Some informal enterprises or own account operators exchange produced jewellery and labour services with the formal firms. This may be referred as “open” or “pure” market exchanges in the sense that here independent production units are transacting with each other (Chen, 2006). In such cases, the competitive formal firms form networks with independent informal own account units. Such networks are much strong in the Bowbazar location of the industry of Central Kolkata. In such networks, individual own account units are involved in transactions with suppliers in the production side and consumers in the distribution network. The terms and conditions of transactions are controlled largely by competitive formal firms, but the own account units also influence the “rules of the game” (Chen, 2006). The entire game between the two forms a “sub-sector” in the production chain of the industry (Chen, 2006).

#### 5.2. Value Chains

Some own account operators, informal enterprises and informal sector workers of the industry produce gold jewellery within a value chain of production. This holds well for sub-contracting from Bowbazar in Central Kolkata to Domjur of Howrah in which formal sector producers and contractors of Bowbazar provides production orders to the informal producers of Domjur. The terms and conditions of production in these value chains are largely determined by the lead firm, mostly by the large formal firm of Bowbazar since they possess better market power, knowledge, contacts and ability to adjust with changes in the market.

#### 5.3. Sub-Sectors

Some informal enterprises or own account operators produce and sale products through domestic chains and global value chains. This practice is strong in the Sinthi location of North Kolkata. Here, the lead firms of Bowbazar sub-contracts work to the informal suppliers of Sinthi. The producers of Sinthi collects work orders directly from Bowbazar. The lead firm determines the terms and conditions. Bowbazar by-passes its heavy workload to Sinthi and maintains its goodwill to its suppliers with timely delivery. Sometimes informal producers of Sinthi directly sell their products through the formation of domestic chains and global value chains.

#### 5.4. Contractors

The informal contractors differ from the informal producers in the sense that they may produce and simultaneously they may provide service to the formal and informal sector producers by formation of a linkage between them. This service appears when they form a linkage by collecting production orders from the formal sector and out-source these production orders to the informal sector. In this way, they do not compete directly with the formal sector over price, but occupy a significant position in the production chain by ensuring work orders to the informal sector producers and also ensure timely-delivery of product to the formal firms. The service provided by the producers appears to be particularly significant when the formal sector producers face heavy workload, especially during the festive and marriage seasons.

### 6. Diversified Forms of Linkage in Production

The significance of the informal sector producers lies in the fact that (a) they are small firms who compete with formal sector producers, (b) they produce similar products, and (c) they generate employment for other informal sector workers of the industry. They compete not on the basis of the price at which they can supply their products, as in many other industries, but on the basis of the production chains by which formal-informal industrial linkage is formed. Sometimes, the formal sector producers purchase intermediate products from the informal producers.

The three extreme forms of formal-informal linkages operating in production process of the Bengal Gold and Jewellery industry are as follows:

1. On the one extreme, the linkages of the industry are marked by sub-contracting in which informal production units are located in different geographical locations, mostly away from the formal ones- hence are separated by space. These are the establishments in which not only the size of the retail unit is large and separated from production units but the amount of capital invested in the firm is substantially high and there is a widespread national market for products and an international market for exports. Such practices are common in Bowbazar and other parts of Kolkata. The production structure in these large scale firms employs informal labourers and makes production cost-effective.
2. Sometimes, production is integrated over space where formal and informal production is carried out within the same shop floor. When a small shop-owner produces gold ornaments in the backyard shop floor of small jewellery shop and sells products from retail counter situated in the front portion – it becomes difficult to separate formal and informal activities – this is because the shop is registered and the customers are of the formal sector but production appears through informal labourer working within the same premise for a meager payment without any job protection. Such a difficulty becomes further intense when the shop-owner takes part in production as a skilled artisan, monitors the work, makes a finishing touch to the product in order to make it ready for sale, and continues with the sales activity or retailing. It may be the case that the owner-producer employs a few paid artisans (2-5 workers) to work with him and takes part in retailing of the jewellery - this is an example of an informal manufacturing of the industry at the smallest level. In all these cases, the distinction between formal and informal units gets blurred.
3. In between the two extremes, the formal and informal activities may simultaneously take place within a single physical location -which appears for medium and large scale producers of the industry. Here, the retail outlet and the formal shop floor are integrated within a single unit, engaging informal workers at a cheap rate. The number of workers employed in

production varies along with the size of the formal counterpart. This traditional form of a spatially integrated model of formal-informal linkage ensures cost-effective production by avoiding costs of social protection measures, costs of abiding environment laws, and avoiding the cost of maintenance of its own manufacturing unit.

Apart from these, two other forms of production that operate within the industry and do not show any linkage have not been taken into account. These are:

4. Production for formal retailing by formal sector labour who is protected. The Special Economic Zone named Manikanchan SEZ is an example of an enclosed cluster of manufacturing units having formal production structure, export potential and linked to national jewellery market in India. Such 'totally formal units' within the Gold and Jewellery industry in West Bengal have been set up in recent times more as a 'show-casing' of organized manufacturing, supported by the government in providing ready infrastructure and employing labour who is protected.
5. Production for local informal retailing by informal sector labour who is unprotected. The 'totally informal units' are rather invisible and operate to small and medium sized informal production units. The retailing and production units at Daspur-Ghatal in West Midnapore or at Garanhata in Central Kolkata are totally informal in nature.

On the basis of the three different forms of linkages, the present study identifies four distinguished models of formal-informal linkage.

Figure 1. Informal labour working at the backyard/shop-floor of formal retailing unit.

Figure 2. Informal labour working at the shop-floor which is spatially separated from the formal retailing unit - the informal work-site is an ancillary unit to the formal one.

Figure 3. Informal labour working at the shop-floor which is spatially separated from the formal retailing unit and supplies the product to the formal unit through sub-contracting and also practices informal retailing in the local market.

Figure 4. Informal labour working at the backyard/shop-floor of the formal retailing unit that links ancillary informal production units and, at the same time, sub-contracts production to spatially separated informal labour.

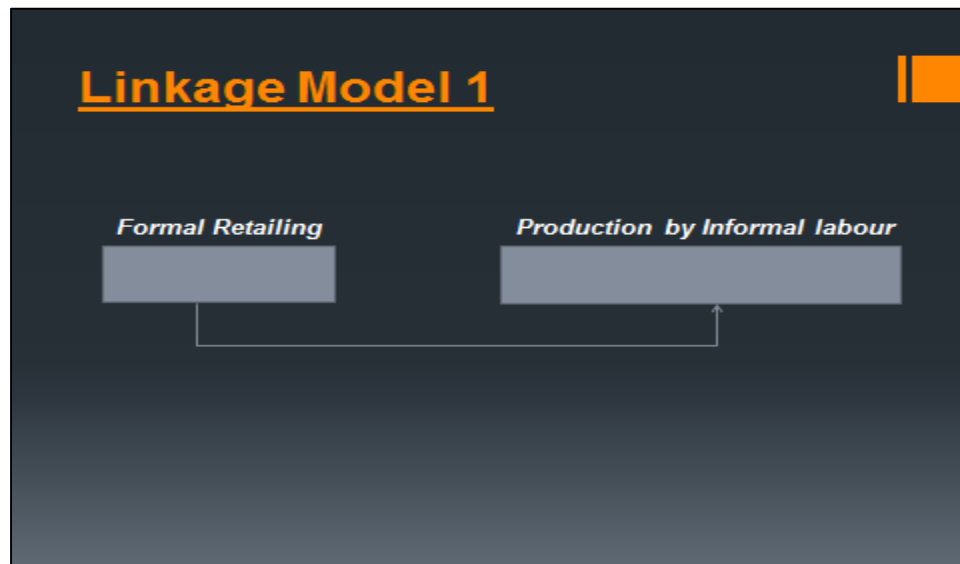


Figure 1

The first model of linkage is the most traditional form of production in the Gold and Jewellery industry in West Bengal and is observed in the Bhawanipur cluster of South Kolkata. In this traditional form of linkage, production and sale take place at the same site/space, where the raw material (gold), means of production (simple tools) and design of the ornament to be crafted, are supplied by the owner/employer and the labour is paid a low and regular wage without maintaining any labour laws. The environmental hazards are passed on to informal labour.

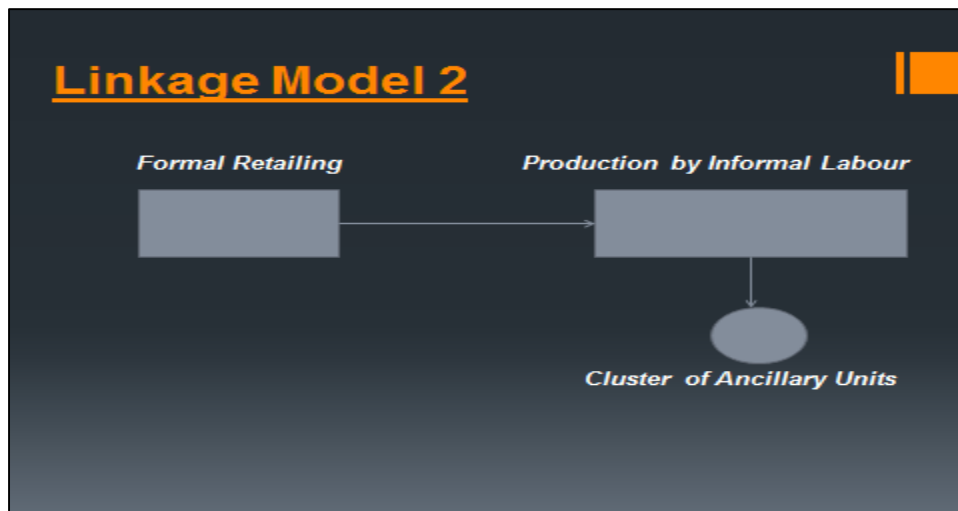


Figure 2

In the second Figure, informal labour works at informal production units situated in spatially separated cluster(s) away from the formal retailing units. This informal work-site functions as ancillary cluster of the formal sector producing according to its work orders. Raw material is procured by the small owner-employer and gold ornaments are produced by informal employees hired by him/her. Wages vary according to skill and most of the production units operate on a small scale, where even the owner-employer takes part as a skilled artisan. Sinthi in North Kolkata is one such ancillary cluster to Bowbazar. Unskilled labourers migrate here from the hinterland and acquire skill in the process of production. Retail selling does not take place largely - all the products are sold directly to the formal units, of which it serves as an ancillary cluster.

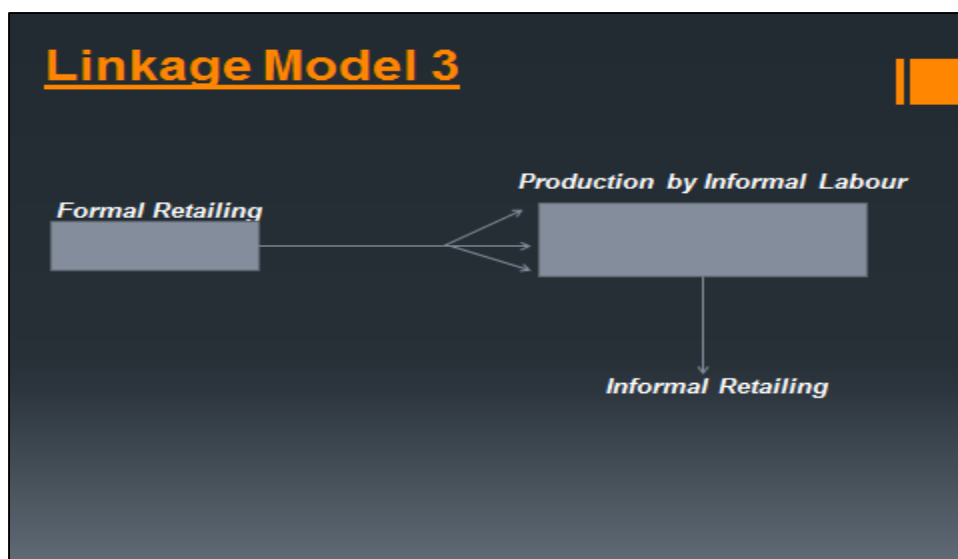


Figure 3

In the third kind of linkage model, informal labour works at the shop-floor of informal production units which are spatially separated from the formal retailing unit and supplies the product to the formal units through a network of sub-contracting. There exist various small and medium informal units of production in such clusters which also takes part in retailing in the local market. Domjur in Howrah district is one such cluster, which is the informal production hub linked to various retail outlets in the city. Own account producers employ local and migrant labour and get paid according to their skill. The production orders come from Bowbazar through a network of sub-contracting.



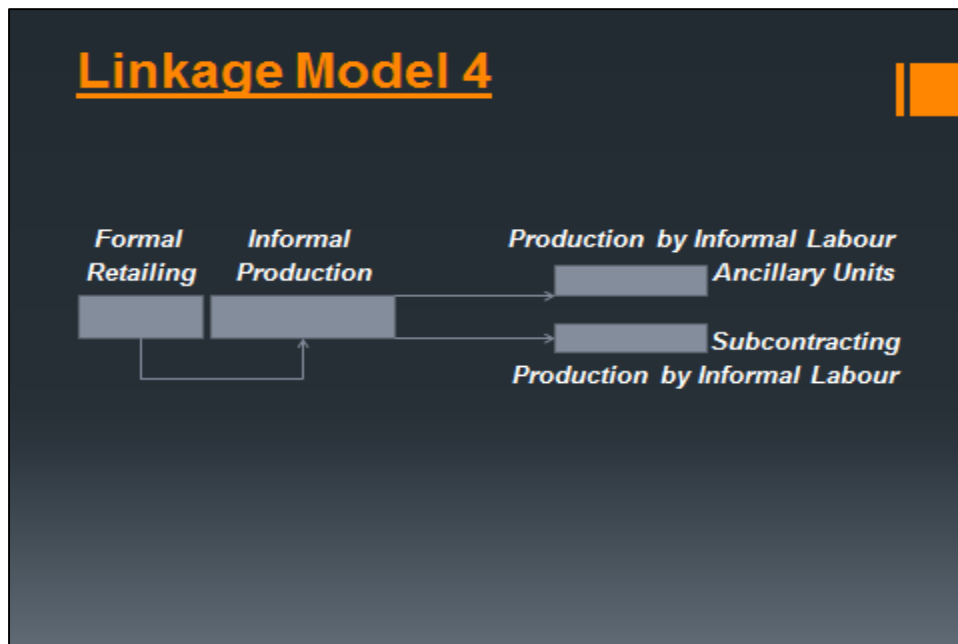


Figure 4

The fourth type of linkage model represents a combination of the above three linkages. Informal labour is directly engaged in production units of the backyard/shop-floor of the formal retailing units. Additionally the formal retail units engages with subcontracting informal labour to produce for them and also links with ancillary informal production units – both of which are spatially separated from the formal retailing units. Bowbazar cluster in Central Kolkata is a classic example of the model and is an important and traditional retail center in the entire Eastern India.

#### 7. Linkage in Labour Payment and Mechanism to Tie Labour

Informal labour working either in shop floor of formal retailing units or in informal production units are paid low wages -payment varies according to their skill and experience. A newly entrant worker works as an apprentice and only after a few months of getting accustomed to the work environment along with the necessary skill the worker becomes eligible to earn monthly wage. Initially the wage is not more than Rs. 2,000. As the worker gains experience and acquires skill of crafting ornaments with intricate designs, the wage increases. A skilled worker knows all the steps of making an ornament and is deft in making fine filigree works in gold. The cash wage that he is likely to get varies between Rs. 5000-6000 per month at the most. Making ornaments is a team work passing from one stage to another in sequence.

Apart from cash payment, the workers are eligible to claim the small bits of gold particles (not gold dust) that come-off as small chips while working with raw gold. This is a natural loss of gold particles which occur in carving out intricate designs or making thin wire out of gold with the help of tools. The loss on account of hand-crafting amounts to 4-6 % of the metal used for making ornament. The gold particles are collected by the worker who works upon the raw material and claims a natural right over it. This loss of raw material for the owner/producer can not be prevented and is a gain for the worker, compensating for the low money wages paid. The loss of raw material in kind for the owner/producer and gain in wage for the worker is commonly termed as 'loss-wage' and is not declared or announced openly.

The producer willingly pays 4-6 % share of raw material to the worker, who utilizes this gold by accumulating particles and finally working upon the gold to carve out an ornament for sale. The worker is free to sell the product of his labour to individuals, contractors or formal retailers, thus realizing a profit without investing capital. The scope of earning an extra amount beyond the agreed wage is lucrative for him who otherwise receives a low cash wage. Depending upon the prevailing gold price in the market, share of the wage-in-kind may exceed the wage-in-cash amount. While the cash wage remains within the range of Rs. 5000-6000 per month, a skilled worker additionally earns an equal or more money through this unique mode of payment made in terms of a proportion of the expensive raw material.

This mode of payment to informal labour of the industry has important economic implications. Getting an opportunity to work in this industry becomes an attractive proposition for the labourers. A regular flow of unskilled labourer continues to concentrate and form a permanent pool to draw from. This unskilled labour acquires skill through experience over time. Only when he reaches the level of a skilled artisan capable in the art of ornament making, he gets the chance to earn an extra amount over and above the wage rate. The cost of training labour is thus possible at a very low expense. The fact that until a labour is not skilled enough to earn the wage-in-kind, he remains tied within the industry. Since trust is an important component of learning skill in this industry, a worker has also to become dependable and trustworthy to work with the expensive metal as the raw material. This also prevents skilled labour to shift from one firm to another. It also ensures that the skilled labour will remain loyal to the firm and not migrate away for a higher cash wage. Thus a core group of skilled and trustworthy labour is created through the process of (a) labour recruitment (b) skill transfer, and (c) mode of payment.

The worker is happy with the wage-in-kind payment which not only enhances the amount of wage, but also gives an access to a share of the costly raw material. Accumulating the share helps him to make a profit by investing own labour on it. This mode of payment thus becomes an invisible mechanism for keeping labour tied to a firm within the industry.

The owner/producer is aware of the loss in raw material while an ornament is being made. The owner/producer also predicts that this loss will not exceed 4-6 per cent. This natural loss helps him/her in various ways. The producer can continue to employ informal labour at a low price. Thus the costs of social security measures are avoided by the owner. The cost of training of his/her labour is not required, since skill in the informal sector is transferred through the process of learning-by-doing and finally there is no cost for retaining skilled labour within the industry. The mode of payment – part in cash and part in kind – ensures that skilled labour will remain there and will maintain a core group of workers to serve their own interest. The loss-wage model of payment thus becomes a mechanism for the entrepreneur to control dissatisfaction of labour and labour unrest at a very low expense.

## 8. Conclusion

The theoretical foundation on formal-informal linkages in the mainstream literature is not sufficient to cover diversified forms of linkages and the problematic of different informal industries in the developing economies. New dimension have to be searched for and new avenues have to be added into in order to explore mechanisms of the informal industrial economies. The context of formal-informal linkages of the Bengal Gold and Jewellery industry is one such an effort to explore different forms of linkage models of the informal industrial economies, to realize the problematic of excessive outflow of skilled labourers of the industry, and to refer the informal mode of solution prescribed by the industry to tie up skill within the industry by following a linkage within the component of labour payment.

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