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CENTRE

RESEARCH REPORT



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XLRI
Xavier School of Management

For the greater good

“HRM Practices, Working Conditions and Labour Engagement in the Indian Gold Jewellery Manufacturing Sector”

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Executive Summary

The Gems and Jewellery sector has been one of the most dynamic sectors of the Indian economy. As per the GFMS Gold Survey 2016, India is one of the world's largest consumers of gold jewellery.

The sector is also one of the largest employment generators, with an estimated 4.65 million employees. It is expected to employ an additional 3.59 million by 2022 (according to Gem and Jewellery Skill Council in India). Seeing the high growth and significant value addition, the government has undertaken various skill development initiatives in the sector. Not many academics have studied this sector including HRM and People practices.

The study supported by Indian Gold Policy Center (IGPC) at IIMA, intends to explore the HRM practices, ER, workforce management arrangements, and labour engagements across formal, semi-formal, and informal sectors of India's gold jewellery manufacturing industry. The study of labour conditions focuses on three perspectives: work environment, work relationship, and employment conditions. The insights gained will also help evolve regulatory, policy level and labour legislation level suggestions to improve working conditions, ensure business sustainability, and ease of doing business.

The project is designed into two phases: As on April 15, 2020, Phase 1 is completed, which includes identifying, categorizing, and analysing different sectors (informal, semi-formal, and formal) and studying overall industry structure and labour practices.

The insights of Phase 1 are basically from the existing literature and interactions with various stakeholders representing the industry (20 participants), connecting, and building relations with the industry stakeholders associated with the different sectors of the gold manufacturing industry, which helped the team in getting a comprehensive understanding of the industry and policies and thereby developing tools for further study. Introductory interaction and oversight about the industry guided the team in developing a segmented questionnaire for stakeholders (owner/managers) and artisans (karigars) personalized data.

The Phase-2, started from May 2020 till July 2021 (due to national lockdown, partial or complete closure of various manufacturing facilities, and travel restrictions) with a focus on visiting manufacturing facilities, interactions with jewellery manufacturers and rolling out the data collection tools across formal, informal, and small formal firms (semi-formal). However, the nationwide lockdown and the spread of COVID-19 affected the manufacturing units across sectors restricted visits and data collection. In phase 2, data was collected from managerial staff from formal, informal, and semi-formal manufacturers through video calls and conferencing. In phase 2, the team could only visit the field after August 2021.

We resumed our data collection and field visits in September 2021. We collected data at the managerial level in the formal and minor formal firms and managed to visit informal workshops (Delhi, Kolkata, Surat, Mumbai, Rajkot) and formal workshops (Kozhikode and Bengaluru) and interacted with the karigars. We have bifurcated the interaction with the stakeholders/managers and karigars separately (*exact figures are mentioned in the report*). All

the interviews were conducted by the research team, including both principal investigators in person face- to- face (except the virtual interactions).

The team has presented a paper at 5th IGPC-IIMA annual gold and gold market conference held in April 2022 at IIC Delhi focusing on “*Labour Practices and Working Conditions in Informal Gold Jewellery Manufacturing*”. The study shows the evidence from the labour practices in the informal sector. The framework used to understand the labour issues is the “*Decent work framework.*” We have seen a lack of decent work despite the rising employment opportunity. The agenda that the ILO has come up with for ‘2030’ is “Sustainable economic development”. Under this, they have let down around 17 goals & interestingly 2 goals refer to creating decent work & good health and wellbeing of employees; these 2 goals are the primary goals leading to sustainable goals. Our study provides a unique contribution, thereby highlighting labour practices issues using the decent work framework in the gold manufacturing industry.

The team has presented a paper at 6th IGPC-IIMA Annual Gold & Gold markets conference 2023, organized by India gold policy centre at IIM Ahmedabad held at India habitat centre, New Delhi focusing on “*Skill development in gold jewellery manufacturing sector: A karigar development framework*”. The study research includes various skill development models, such as the various phases of skill development in formal and semi-formal sectors, beginning with Basic training + Apprenticeship + Probation (equivalent, which is a testing time), which converts a new aspirant karigar into a skilled karigar, in 3-5 years. Fresh karigars are initially employed as helpers in casting, wax, and wire production, etc. Development of skills can be either Specialized or Multiskilled.

The study has captured the experiences of 123 artisans (Karigars) working in the informal workshop across the country using in-depth interviews and observation about working conditions and labour practices prevailing in the informal. Suggestions for attracting young talent, increasing labour mobility across industries, promoting decent employment, and ensuring a sustainable labour market are potential outcomes of this research jewellery manufacturing sector. Data has been analysed using the inductive approach of the qualitative method and results are framed using the ‘Decent work (ILO, 1999)’ framework that proposes productive and quality employment characteristics. Our finding emphasises various skills development models in the formal and informal sector, explained in detail in the report. Our research has led to categorizing employment types in this industry, from which an integrated skill development framework for karigars has been developed.

The result shows the absence of basic hygiene elements in informal workplaces, longer working hours, absence of social security (owing to informal employment), discontinuity in work because of seasonality and demand–supply uncertainties, and work insecurity. In addition, we found this sector suffers from a lack of skilled artisans to match demand, and the young generation is no more interested in joining this sector as Karigars. We have also developed a framework for the gold Karigar talent management process (GKTMP) in the informal sector, highlighting the various karigars acquisition processes. The findings of this study have relevance for policymakers and manufacturing firms, both in formal and informal

sectors, for creating a skilled karigar pool and managing the karigars in the gold jewellery manufacturing sector.

The report will explain the standalone and comparative analysis of each industry segment in terms of convergence or divergence in the standards of work conditions, labour engagement, and labour/HRM practices.

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Chapter 1: Introduction

1.1 Background of Gems and Jewellery Industry

The gems and jewellery manufacturing sector are one of India's fastest growing industries, contributing around 7% of the GDP and 12% of the country's export (Dutta, 2020). The gold industry is approximately Rs. 650,000 crores in size and has tremendous potential for growth. With adequate policy stimulus, the industry is expected to double its contribution to GDP from 1.3% in 2016 to 2.5% - 3%, boost exports from US\$ 8 billion in FY2017 to about US\$ 20 billion, enhance opportunities for employment for over 10 million people and increase Foreign Direct Investment inflow from US\$ 70 million in FY2017 to over US\$ 200 million by 2022 (NITI Aayog, 2018). This sector has grown at a CAGR of over 14.5% in the last 50 years and significantly contributes to National Industrial Production. As of January 2017, this sector employs around 6.1 million people across India. The gold manufacturing industry consists of a few large players (NITI Aayog, 2018), such as Titan, Emerald, Malabar and Kalyan along with a large number of small and medium manufacturing units (MSMEs) (Around 90-95% are MSMEs [Source: NITI Aayog, 2018]). This industry is largely fragmented and unorganized and is characterised as a cottage industry consisting of a large number of micro and very small informal gold manufacturing workshops. Traditionally, this industry has been dominated by small family-owned jewellery shops employing family members. However off late, large formal manufacturing units have started dominating the gold manufacturing industry. There is a lack of consensus about the number of gold jewellery manufacturing units in India due to the large number of unorganized manufacturing workshops (Dutta, 2020; NITI Aayog, 2018).

1.2 Indian Gold Sector

Taking cognizance of the untapped potential of the gold market and recognizing its critical impact on economic growth, exports and employment, a committee was constituted by NITI Aayog on 25th August 2017 to formulate a comprehensive Gold Policy. The committee envisions transforming India's gold market by creating additional employment opportunities, doubling the exports, and establishing a consumer-friendly, trade-efficient system of regulated gold exchange in the country. To formulate the vision, the Committee was seized of the fact that India's role in global supply chain is not significant, unlike China. China is the largest gold producer in the world, accounting for around 14 percent of the total global production. India's share in the global gold production is around 0.05 percent and India's aggregate demand for gold is very high, accounting for around 25 percent of the global demand. And yet, in per capita terms, India has one of the lowest consumption rates in the world at 0.5114 grams per person as against China, which has a consumption rate of 0.66 grams. One of the reasons for this low demand is low per capita income compared to other gold consuming countries. But with India's growth trajectory, the per capita demand for gold will likely increase in the foreseeable future. With limited domestic supply and rising prospects of gold consumption, imports of gold are also expected to rise unless suitable measures are taken to address this issue of gold supply. (NITI Aayog, 2018).

1.3 Total Exports

Gross exports of gold jewellery have registered a decline of (-) 39.56 % y-o-y to US\$ 1734.2 million during April- June 2021 compared to US\$ 2869.22 million registered during April - June 2019. Plain gold jewellery is one of the few commodities whose exports have not revived back to its pre-covid levels in 2019 recording a negative growth of (-) 71.33 % in April – June 2021 as compared to April – June 2019. This fall's reasons can be attributed to the lack of sales to tourists in major destinations such as Singapore, Malaysia, and Dubai, non-availability of the precious metal, high collaterals, and margin money for gold loans etc. Exports of coloured gemstone jewellery have also registered negative growth in April-June 2021 as compared to April-June 2019, majorly due to the second wave of Covid-19, non-availability of rough gemstones, labour shortage, high collaterals, and margin money for old loans. At the same time, exports of studded gold jewellery increased by 60.46 % to US\$ 1109.87 million during April – June 2021 from US \$691.7 million recorded during April – June 2019 (GJEPC Analysis). Export of gold bars witnessed a steep decline of (-) 81.05 % during the same period compared to April – June 2019 reflecting contracted production and exports of gold jewellery, especially of plain gold jewellery. Overall, the imports of gems and jewellery commodities rose marginally by 2.41 % to US\$ 6155.04 during April – June 2021 million as compared to US\$ 6010.53 million in April – June 2019 (GJEPC Analysis).

1.4 Gold Supply Chain

The total world gold supply comes from the mining and recycling of ground gold stocks. Mine production accounts for the largest gold supply – 75 percent each year. About 90 countries mine gold, out of which there are just seven major players. Over last 5 years, mines and gold

mining operations have become increasingly geographically diverse. China has been the largest gold producer in the world, accounting for around 14 percent of total annual production. But one region does not dominate. The other major countries are Australia, Russia and the United States have about 8 percent of global gold mining production. India's share in the global gold production is less than 0.05%. As it is virtually indestructible, nearly all the gold ever mined is theoretically still accessible in one form or another and potentially is also available for recycling. The majority of recycled gold, about 90 percent, is extracted from high- value gold jewellery and 10 percent from industrial gold.

Gold supply in India is primarily met through imports, with less than 1 percent coming from local mining and about 10 percent from recycling. India's gold imports consist of gold in refined form and gold in doré form. In 2016, the top 3 countries from which India sourced gold imports were Switzerland, UAE and South Africa. Bullion accounted for around 78 percent of the total imports and doré the rest. In 2016, India mined less than 2 tons of gold from the Hutti gold mines in Karnataka. In 2016, refining a domestic scrap of gold stock accounted for about 1 percent of total household gold stock. There are three sources of gold recycling: jewellery scrap, manufacturing scrap and end-of-life industrial products. Jewellery scrap is the largest segment, accounting for 90–95 percent of all recycled gold.

1.5 Gold Demand and Consumption

Over the last 5 years, China has accounted for around 30 percent of the global demand. India's demand was around 25 percent. The rest of the world accounted for around 45 percent, with no single country's demand being greater than 10 percent. The demand for gold jewellery is also highest in India and China. Investment for financial assets like physically backed gold exchange- traded funds (ETFs), exchange traded commodities (ETCs), and similar funds account for approximately one-third of investment gold demand. These funds were first launched in 2003, and as of March 2016, they collectively held 2,300 tons of physical gold on behalf of investors worldwide.

The Indian gold market is characterized by low per capita consumption, huge idle stock and savings primarily in the physical form. The strong significance of household savings in gold is both due to deep- rooted traditions and economic reasons. Gold has been a wealth-preserving asset, as a hedge against inflation, in collateralising lending and ensuring credit access to rural households. A notable fact is that as of 2016, India has one of the lowest per capita consumptions of gold (0.51 g) amongst both emerging economies (Vietnam – 0.63 g, Turkey – 0.88 g, Thailand – 1.18 g) and developed economies have consumption rates in excess of 5 grams (USA – 0.66 g, Hong Kong – 5.82 g, Switzerland – 5.48 g, UAE – 5.02 g). The difference between consumption patterns in India and other countries is two-fold. First, the per capita consumption of gold in most countries is channelled through financial products. Second, unlike other countries, every household in India buys gold, and mostly, in its physical form. The total gold stock in India with domestic households and institutions is estimated at 23,000-24,000 metric tonnes. The lack of data on the consumption of all manufactured goods using gold as input prevents a detailed analysis of the estimates of GVA or employment in this sector.

India is the second largest gold market (800-900 tonnes p.a. of domestic demand on average) and accounts for around 25 percent of the world's gold demand. India's gold demand is primarily through jewellery (73.1 percent), coins (6.9 percent), industrial (1.4 percent), ETFs (2.7 percent) and bullion (15.9 percent). In 2016, India bought 505 tonnes of gold jewellery, second to China. India's diversity is reflected in its jewellery consumption, with rural India accounting for around 60 percent of jewellery demand.

1.6 Employment Trends in the Gold Jewellery Manufacturing Industry

Sixty-five percent of the total population in India is under 35 years of age. A significant contribution to the Indian economy is from the gold ecosystem. This industry primarily consists of MSMEs (90–95 percent) and employs about 6.1 million directly or indirectly across the entire value chain. By 2022, this sector is estimated to employ about 9.4 million, which projects an incremental human resource requirement of 3.3 million. Hence, skill development will play an important role in transforming India's gold markets and the Indian economy in general. From the perspective of employment generation over the industry, value chain skill development needs to focus on four major sub-divisions: 1. Mining/Refining 2. Manufacturing 3. Standardisation (assaying/hallmarking) 4. Sales (NITI Aayog, 2016). This industry is highly labour-intensive and is one of the fastest-growing sectors with much export potential. Currently, most of the industry skills and training have been on the job and little is available in terms of formal training. Most of the learning is through mentoring, which is the age-old method of teaching. However, there has been an overall feeling of discomfort amongst the industry players regarding the shortage of skilled manpower, which is likely to grow and could seriously dent product quality, traditional crafts and export potential.

The demand for a skilled workforce remains steady, but the sector lacks aspirational values, i.e., is less attractive to the youth. The primary reason may be the working conditions, wages or remunerations. In addition to the above, there are skills required for the segment of the international jewellery market, which India only cater to in a minor way like the machine-made jewellery market. It is critical for the nation to focus on developing this segment to cater to the global market demand to make India the global jewellery hub.

In summary, special attention needs to be given towards uplifting the capability of the manufacturers to make lightweight machine-made jewellery, which is preferred by the international customer, along with the augmentation of skill development that is required to cater to the growing demand for gold jewellery in the domestic market and for Indians overseas.

1.7 Issues and Challenges: Bridging the Skill Deficit

The Committee chaired by the Principal Advisor, NITI Aayog, noted the gaps and skillsets. It identified the following action areas for raising the skill deficit. In the process of skilling and technology upgradation, the core competence of the industry such as unrivalled traditional crafts, non-polluting nature, design-creativity based value additions and tremendous employment and entrepreneurship potential, is preserved. Since the industry is fragmented, small units dominate the manufacturing space with few specialized workforce. Most of their skills have passed through generations and top priority should be accorded to ensure that skills

of millions of artists and artisans around the country are preserved, encouraged and enhanced to stay relevant in the modern world and able to compete globally.

1.8 Need of the Study: Context, Rationale

Work is the central aspect of one's life and is a key determinant of quality of life, satisfaction, contentment and happiness. Literature supports that a large number of people still find it difficult to get access to productive employment all around the world (ILO, 2018). Lack of a decent work environment hurts one's morale, motivation, engagement, overall health and well-being (Kashyap et al., 2021). Goal No. 8 in ILO's Agenda of 2030 highlights the importance of 'Decent Work' for economic and health prosperity. Only 18.4% of the total workforce in India got regular employment opportunities from 2011-2012 (ILO, 2014). The absence of regular employment in India has given rise to informal employment that potentially lacks decent employment conditions. This has also led to increased unemployment among the educated workforce (Mamgain and Tiwari 2016).

The Indian gold industry is a key contributor to the national GDP and international trade and employs more than 6.1 million people. Furthermore, research also depicts a skill shortage, and it is predicted that by 2023, this industry will seek to employ more than 10 million people. This skill deficit needs to be met in time for the sake of survival of this indigenous industry that is crucial to the national economy. .. Literature highlights that very limited studies have examined the employment conditions and HRM practices in the organized and unorganized sector, specifically in the Indian gold manufacturing industry. It will be interesting to investigate the foundations of its sustainability given the imbalance between worker supply and demand in this sector. Additionally, comprehending the contribution of this industry towards the nation, it is also pertinent to understand why people are still eager to work in this sector despite the poor working conditions, lack of social protection and lack of decent working opportunities. Hence, in this study we aim to understand the different labour practices and conduct a comparative analysis between organized and unorganized gold manufacturing sectors. It will enable us to analyse these two sectors' convergence, divergence, and interdependence. This study has adopted a qualitative approach wherein data was collected in three phases. This study conducted 183 in-depth interviews. The findings of this study highlight the labour practices in the formal and informal sectors, karigar lifecycles and interdependence between these two sectors. Implications for policymakers have also been discussed in detail.

Chapter 2: Literature Review

2.1 Decent Work

Decent work signifies the ‘quality of life’ of workers in the workplace and originates from the inception of the International Labour Organization (ILO) in 1919. ILO has been advocating the desperate need for ‘decent work’ to provide productive work opportunities for women and men along with freedom, equality, security, and human dignity at the workplace (ILO, 1999). ILO (2001) suggested six dimensions of ‘decent work’ namely *opportunities for work for both men and women* (e.g., those who want to work should get work either in formal or informal sector including self-employment), *work in conditions of freedom* (e.g., freedom from bonded, child labour, and freedom to join workers’ organizations), *productive work* (e.g., work providing sustainable livelihood to the worker and their families), *equity in work* (e.g. no discrimination at the workplace, work-life balance, fair treatment), *social security protection* (e.g., financial security in case of illness, unemployment or any contingencies), and *dignity at work* (e.g., respectful treatment, ability to raise voice, participation in decision-making related to work conditions and collective bargaining). ILO’s decent work objective is primarily based on four pillars viz., fundamental rights of workers at the workplace, creation of employment, social protection, and social dialogue (ILO, 2001). In sum, decent work aims to ensure employment security, work security, representation security, income security, skills reproduction security and fair treatment in job security (Nizami, 2019).

Over the years, various measurements (e.g., Anker et al., 2003; Bescond et al., 2003; Ghai, 2003; Standing, 2002) of ‘Decent Work’ has been developed capturing multiple dimensions of decent work. For instance, the measurement of Ghai (2003) captured employment opportunities, social security, basic rights, and social dialogue. Anker et al. (2003) developed measurement having eleven indicators measuring employment opportunities, unacceptable work, adequate earnings and productive work, decent hours, security and stability of work, work-family life balance, fair treatment in employment, safe working environment, social protection, social dialogue, and economic and social context of decent work. Similarly, Bescond and colleagues (2003) highlighted seven indicators of decent work: hourly pay, hours of work, unemployment, school enrolment, youth share of unemployment, the male-female gap in labour participation, and old age without social security (pension). In sum, most of the measurement scale of decent work centres around measuring the quality of employment such as working conditions, sustainable income, social protection, fair and equitable relationships in the workplace.

Despite quests for ‘Decent Work’ have been pursued globally by ILO and its member countries yet, there are countries where employee well-being in employment relationships is partly or completely missing (ILO, 2018; United Nations Development Programme [UNDP], 2018). Globally, a large chunk of the workforce is miles away from experiencing ‘decent work’ in their employment and has been involved in low-quality employment that negatively impacts on well-being, happiness, and health (ILO, 2018). Inclusion of ‘Decent Work’ (goal no. 8) in seventeen sustainable development goals (SDGs) of ILO agenda of 2030 for sustainable development further stresses on the creation of productive employment. Also, SDG goal no. 3

highlights the importance of ‘good health and well-being for achieving sustainable economic growth. Recently few researchers have started viewing decent work as a solution for achieving employees’ well-being (e.g., Anlesinya et al., 2020; George et al., 2016).

Regular employment or formal sector employment is arguably considered as ‘Decent Work’ since it meets the ILO criteria of decent work. Unfortunately, regular employment or employment in formal sector constitutes the smallest fraction of total employment opportunities globally especially in developing nations (ILO 2014; Papola and Sahu 2012). For instance, in India only 18.4 percent of the total workforce got regular employment opportunities during 2011-12 (ILO, 2014). More than half of the workforce is self-employed, and another 29 percent are employed as casual wage workers (ILO, 2014; Mamgain and Tiwari 2016). Absence of regular employment in India is giving rise to informal employment that potentially lacks decent employment conditions and an increase in unemployment among the educated workforce (Mamgain and Tiwari 2016).

2.2 Antecedents of Decent Work

Existing research on ‘decent work’ has primarily been conducted at the macro level. Studies have mainly relied on legal, political, and economic theories with little attention to national industrial relations and human resource management theories and practices (Cooke et al., 2019). Recent studies have started exploring decent work from the perspective of human resource management practices and industrial relations (e.g., Anlesinya et al., 2020; Cooke et al., 2019; Qing et al., 2016). Studies on decent work indicated the importance of training for improving the employability condition of the workforce through the acquisition of skills and relevant knowledge (Ybema et al., 2020). Job-related training and basic education greatly help beneficiaries in getting meaningful jobs (Pastore and Zimmermann, 2019) which is one of the agendas of decent work. ILO (2008) indicated the significant contribution of education, training, and life-long learning in creating decent work. In a recent study, Anlesinya et al. (2020) also found relevance of training and development on decent work. There is abundant empirical evidence suggesting human resource development and entrepreneurial talent development initiatives (e.g., Anlesinya et al., 2020; George et al., 2016; Puni et al., 2018; Lanvin et al., 2019) at the macro level have an impact on job creation, economic growth, competitiveness through relevant skill development.

In other words, workforce training and development is a critical economic activity with great potential to boost the growth of decent work in any industry or country. The biggest challenge that the large worker force (prone to precarious work) has been facing is the absence of adequate skills and knowledge forcing them to take up vulnerable employment offering nothing meaningful (e.g., poor work conditions, no social protection, no income security, etc.). Therefore, it is critical to focus on skill development at the macro level so that decent work (e.g., meaningful, and productive work) can be created and provided to a large chunk of the participating workforce.

2.3 Outcomes of Decent Work

Aristotle posited the importance of the acquisition of wealth and knowledge (as per ones' potential), healthy life, relationships, and other domains of life in leading fulfilling lives of people (Erdogan et al., 2012). On similar lines, recent studies have highlighted the importance of dignity of work and/or decent work for employees' well-being (e.g., Anlesinya et al., 2020; Cooke et al., 2019; Erdogan et al., 2012; Sachs, 2016). Decent work provides adequate income and livelihood that helps the individuals drive gratification (Erdogan et al., 2012) through the fulfilment of financial needs, hence, improvement in their well-being (Pittau et al., 2010). Furthermore, job security (Silla et al., 2009) and income security (Warr, 2007) have been found to enhance individuals' subjective well-being by enhancing life satisfaction and happiness. Decent work improves the well-being of individuals by providing adequate income, job security, social protection, and opportunities for participation in employment relationships (e.g., Anlesinya et al., 2020; Erdogan et al., 2012; Cooke et al., 2019; Sachs, 2016). In sum, individuals feel pride in such employment relationship that gives regular and adequate income to fulfil financial needs, along with social protection and job and income security. Many people value personal security the most (Warr, 2007) and decent work provides job and income security that helps individuals live fulfilling lives and experience improved well-being (Anlesinya et al., 2020).

2.4 Rise of Precarious Work in India

One of the consequences of globalization in India and elsewhere is the growth of precarious forms of work (also referred to as flexi-forms of work) in many sectors of the economy (Kalleberg, 2009; Shyam Sundar, 2012; Standing, 2011). Employers argue that flexi-forms of work are in fact necessary to tackle the heightened competition and uncertainty in the product market (Employers' Federation of India, 2001). The rise of global supply chains and outsourcing in the domestic economy has further strengthened calls for adopting flexi-forms of work. On the other hand, the state-appointed Commissions (National Commission for Enterprises in the Unorganised Sector [NCEUS] (2007, 2009)), trade unions, and several commentators decry the rise and growth of "informalization" of work, as they see these tendencies as promoting a deficit of decent work (International Labour Office [ILO], 2012; Mundle, 2016; Srivastava, 2012). Supporters of labour flexibility argue that flexi-jobs in general serve several positive functions, viz. they (a) provide a gate of entry into the labour market, (b) serve as a bridge between informal and formal labour markets (or a "waiting room" for acquiring regular jobs in the formal market), (c) provide opportunities for workers to acquire skills, (d) enable skill matching on both demand and supply sides, and (e) tackle the problem of unemployment (especially youth), and hence remove involuntary idleness (Booth, Francesconi, & Frank, 2002; Bruno, Caroleo, & Dessy, 2012; Shyam Sundar, 2009).

2.5 Decent Work in the Formal Sector

Winch Enbach, Hanna and Miller (2019) found in their research on employees in the tourism industry that employees in this industry have a low level of perception of decent work, mainly reflected in the lack of job recognition and respect, lack of job autonomy, and gender

discrimination. Therefore, it is necessary to improve the sense of identity and dignity at the individual level, the organizational level, socioeconomic and legal level in order to improve the decent work level of employees in this industry. Mehta (2016) took female employees in the ICT industry in India as the research object and studied the decent work level of this group from four aspects: employment opportunities, social security, working conditions and, social dialogue. The results showed that the job security of this group was low. For example, the contract workers in 1-3 years may be fired at any time due to poor performance and economic recession. Poor working conditions, such as short annual leave, long working hours, night shifts in some departments, high work pressure, and goal-oriented work, are likely to cause mental illness and health problems. Employment security is limited, and the phenomena of open contracts are frequent. Low levels of social dialogue, such as fewer employees joining unions and employers refusing to back unions. Overall, decent work standards for female knowledge workers in the sector remained low.

Operational employees pay more attention to income security, occupational skill development, occupational identity, and social recognition. In comparison, service-oriented employees pay more attention to occupational identity, customer relationships, and income security (Xu Yan, Liu Dun, 2017). According to the survey data, about 70% of knowledge workers are in a state of "overwork", and nearly 40% have entered the danger zone and are in medium or heavy labour (Wang Dan, 2011). In recent years, the decent working conditions of knowledge workers have attracted the attention of scholars. Teachers in colleges and universities as an object of study, according to the results of university teachers of decent work level as a whole is higher than the social average (Zhao Yang li, 2011 b), but there are also some problems, such as the lack of labour remuneration, labour rights, and interests is damaged, loss of democratic rights, working pressure, fair and competitive with low income, lack of training (Zhao Yang li, 2011b; Huang Weide, Cody, 2015). Cody (2012) measured and analysed the decent working conditions of knowledge workers in Shanghai, and found that the decent working level of knowledge workers in Shanghai was relatively low, mainly reflected in the low level of labour security income security and reproduction skills. If these demands are hard to meet, it will inevitably affect the decent work level of knowledge workers.

2.6 Decent Work in the Informal Sector

Working overtime is one of the important obstacles to the realization of decent work in informal employment group (Stuart, Pautz, & Wright; 2016). He Tianping, Liu Xin and Li Huajun (2012) studied the new generation of migrant workers and found that 8.8% of them worked for more than 12 hours every day, and 71.3% of them worked for 8-12 hours. The phenomenon of overtime work is common, but overtime work does not bring the new generation of migrant workers a higher salary. This conclusion has also been verified in female migrant workers and women in informal employment (Yu Mi, 2017; Li Chaoyang, 2011a). In addition, social protection is also an important challenge in the realization of decent work. Cruz, Hardy and Sanders (2017) 's research on British strippers shows that, this group lacks the necessary labour protection due to the reasons for freelancing. They suggest improving working conditions and conditions for strippers and reducing the risk of freelancing through licensing laws and centralized organization politics

Owens and Stewart (2016) 's research on interns found that to gain work experience, such groups are usually free labour in enterprises, and they are faced with the dilemma of being exploited and lacking social protection. Therefore, it is suggested that the rights and protection of interns should be stipulated by law. Encourage companies to offer high-quality internship programs or training programs that align with educational levels. Zhang Lin and Yang Yi (2014) took domestic workers as the research object. They analysed the low level of decent work in this group, which mainly reflected four aspects: the marginalization of occupational symbol identity caused by cultural exclusion, the deprivation of employment opportunities in economic exclusion, the lack of social protection in welfare exclusion, and the weak social dialogue in relationship exclusion. In view of this, the researchers suggest that top-level design and institutional arrangements should be strengthened, policy support and implementation should be strengthened, and awareness and training should be improved to improve domestic workers' decent working standards.

2.7 Why Workers Want to Work in the Informal Sector?

There is evidence that workers find greater flexibility and autonomy in platform work: for example, Upwork workers in India, “appreciated being able to operate from home and avoid difficult commutes as well as escaping from the micro-politics, supervisory controls and interpersonal issues that accompanied organisational life [*and*] enjoyed the flexibility of setting their daily schedule and pace” (D’Cruz and Noronha, 2016:50).

From the workers' perspective, there are two contested issues in the context of the dichotomization of the labour market. The first issue is whether informal work is a voluntary choice of the worker (Kucera and Roncolato 2008), or if workers participate in informal work due to exclusion or ‘push’ factors (Maloney 1999; Fields 2003; Perry et al. 2007; Gunther and Launov 2012). Second, it has also been argued that a worker's choice to be in the informal sector or engage in informal employment may be motivated by a desire to avoid tax burdens and inefficient regulations (Fields 2003). Contrary to this, there is a view that informality is a means of capitalistic exploitation fostered by regulatory issues (Bremner 1996). In this context, Maiti and Sen (2010) classify theories of the informal sector into two groups: ‘means of exploitation’ and ‘means of capital accumulation’. However, their results show mixed evidence on whether there is exploitation or accumulation of capital in the informal sector. In terms of socio-economic determinants of informal work, Bairagya (2012) found that workers belonging to other backward classes (OBCs) are more likely to work in the informal sector. In another study, scheduled caste (SC) and scheduled tribe (ST) workers were found to be more likely to be in the informal employment sector, even in public enterprises (Kannan 2014).

However, considering the evidence that educated youth are less likely to be employed - informal or otherwise — along with limited opportunities in the formal sector (Bairagya 2018), formalising the role of education may be seriously restricted. Furthermore, those with formal vocational training were less likely to engage in informal employment. This finding is relevant in the context of growing concerns about the challenges faced by initiatives under the ‘Skill India’ mission, following the implementation of the National Policy for Skill Development and Entrepreneurship 2015 (MSDE 2016). Since the outreach of formal vocational training remains meagre — around 3% of the workforce (Labour Bureau 2017), it

is important to address major challenges in vocational education and training (Mehrotra et al. 2015).

At the same time, though, there is evidence of problems with platform work, Uber/Ola drivers in India were found to endure “fatigue, stress, hunger and sleep deprivation” in order to earn enough to pay off loans taken out on the assumption of a certain level of income from platform work (Kashyap and Bhatia, 2018). Therefore, when considered in a broader context, platform work is regarded as a compromise that offers flexibility and employment opportunities to workers in developing countries at the expense of ongoing precarity and inequality (Heeks, 2017).

Chapter 3: Methodology

3.1 Research Objectives

This study aims to achieve the following broad research objectives:

1. To understand the labour practices (acquisition and retention of artisans, allocation and monitoring of work, work conditions) in formal¹, semi-formal² and informal³ sectors.
2. To identify the interlinkages between formal and informal sectors related to labour management processes and provide policy implications for the gold jewellery manufacturing industry.
3. To explore and develop an HR framework for best practices to increase HRM effectiveness in the Gold Jewellery Manufacturing Industry.

3.2 Qualitative Research: Inductive Approach

This study intends to capture the experiences of key stakeholders (managers, supervisors, jewellers, karigars and head karigars) to fully understand the existing working conditions, labour practices and labour challenges in the gold jewellery manufacturing sector. For this purpose, it is important to analyse the participant's narratives based on their experiences. Hence, we conducted qualitative research to draw insights from the participants' inputs. This method also helps to capture the complexity of the phenomenon of interest (Jha and Singh, 2021). This study adopted an inductive approach of qualitative research method. An inductive approach begins with the raw data of the participant. It is a recursive process that helps in deriving key themes and concepts relevant to the objectives of the study (Gioia et al., 2013). This study explores the labour management practices and labour conditions based on real-life experiences of key stakeholders in the formal, semi-formal and informal sectors in the gold jewellery manufacturing industry. In-depth interviews were conducted that also gave voice to the participants rather than imposing prior constructs or theories on the participants.

3.3 Data Collection Process

3.3.1 Sampling technique

Data has been collected from gold jewellery manufacturing firms and workshops across formal, semi-formal and informal sectors. Identifying large manufacturers in the formal sector was relatively easy as gold jewellery manufacturing consists very few large manufacturers, along with large number of semi-formals or minor formals manufacturers and an extremely high number of informal gold jewellery manufacturers (mostly working from their

¹We define formal sector (organized) as, organizations that comprise of a fixed set of rules and practices for managing business and people.

²Semi-formal sector (partly organized) has those organizations that have the elements of both formal and informal. They may have structured policies for some procedures, not all.

³Informal sector (unorganized) has organizations that do not have a structure and a fixed set of business and labour practices.

homes/small-rented rooms). We followed the non-probability *purposive sampling*⁴ method and collected data from eight formal manufacturers including four large and four small formal firms. We interacted with the plant heads, HR heads, outsourcing team, labour compliance heads (welfare officers), supply chain heads and other business heads to understand the gold jewellery manufacturing industry, supply chain and challenges in managing labour in the industry. In addition, using a *simple random sampling*⁵ technique karigars and head karigars were selected and interviewed from the formal firms.

We used the non-probability *two-stage cluster sampling*⁶ to select the semi-formal and informal workshops from a large population of semi-formal firms and informal workshops nationwide. In the first step, based on existing reports and studies (FICCI, 2013; Analysis by KPMG & AT Kearney) we identified the major gold jewellery manufacturing hubs such as Delhi (famous for Jadau, diamond and silver jewellery), Kolkata (known for filigree-lightweight plain gold jewellery), Jaipur (majorly known for Kundan & Minakari design), Gujarat (Rajkot (famous for colour stone), Junagadh (polki jewellery), Surat (famous for studded jewellery)), Mumbai (machine made gold jewellery), Coimbatore (casting jewellery), Thrissur (light weight gold jewellery), and Nellore (handmade jewellery). These manufacturing hubs were primarily identified based on the location and design of the jewellery.

Based on the purpose of study (i.e. understanding labour practices and conditions), project timelines and various constraints (COVID- 19 travel restrictions), we randomly selected nine manufacturing hubs such as Delhi (Chandni Chowk, Karol Bagh, Okhla Industrial town), Mumbai (Zaveri market), Kolkata (Bau Bazar, Sinthi More, Kolkata city), Gujarat (Rajkot, Surat, Ahmedabad), Coimbatore, Kozhikode, and Bangalore (Hosur) clusters for identifying semi-formal firms and workshops. Next stage, using *snowball sampling technique*⁷ (participating firms used to introduce the project team to the next firm within the cluster), small gold jewellery manufacturing firms and workshops within each cluster were selected. Finally, from each selected firm within the cluster, key participants (owner, karigars, managers, head karigars) were randomly selected for the study.

Getting access to informal karigars and workshops was most difficult as these informal workshops were located in crowded markets with narrow and circular lanes making it

⁴Purposive sampling- As our study intended to cover labour practices from major formal firms so purposefully sample (e.g., large firms) were contacted for the study. Purposive sampling is done based on the objective or the purpose of study.

⁵Simplerandom sampling -Every participant in the population has an equal chance of getting selected to be the part of sample of the study.

⁶ Two stage-cluster sampling- The entire population is categorized into clusters (based on location, age, or any population property) and then the clusters are randomly selected. Then using simple random sampling technique elements from each selected cluster (selected in previous step), are taken for sampling.

⁷Snowball technique-This technique is widely used when information about population is unknown or rare. Identifying the semi-formal firms and informal workshops (unorganized and not registered) was difficult as there was no information/data set available about gold jewellery manufacturing semi-formal firms and informal workshops. Therefore, we used snowball sampling within the manufacturing cluster.

impossible for strangers to visit them. Also, owing to security purposes (i.e., handling precious metal gold) informal workshops were reluctant to allow any research team to visit them for interactions. We used snowball sampling and convenience sampling technique to access various workshops in Delhi, Kolkata, and Mumbai. We could not get access to the workshops in all identified clusters (mentioned above) in this study. However, being a qualitative study, we could get an adequate sample size of karigars (e.g., got saturation in responses from the sample) for the primary purpose of the study.

3.3.2 Field Visits

The research team consisting of four members, including two faculty members and two research associates, made twelve field visits across clusters including two visits each to Delhi, Mumbai, Kolkata, and Bangalore, one visit each to Kozhikode, Rajkot, Ahmedabad, and Surat. Most of the visits (except a few visits to nearby places for one day) were planned for two to three days, excluding travel days. The research team used to coordinate with IGPC, IIM Ahmedabad for planning field visits to various gold manufacturing firms. IGPC helped us identifying and selecting firms across clusters for this study. During the field visits (refer Annexure 8.3 for the site visit pictures), the research team - conducted structured in-depth interviews with key stakeholders to understand the labour management practices and labour's conditions in a particular gold jewellery manufacturing firm. Field visits helped the research team understand the gold jewellery manufacturing process, the context of karigars' work, and various other additional information regarding labour engagement and practices. Face to face interactions majorly helped the research team in capturing the views and experiences of karigars who otherwise would have not been comfortable sharing. Interactions used to last a whole day, at the end of the day research team used to meet for summarizing the observations, key points and insights, and plan the next day interactions. Any doubts or missing information that emerged during the evening discussion were re-captured the next day. Demographic details (age, contact, experience, department, etc.) of each of the contacted participants were captured during the interview and maintained in the database.

In addition to the field visits, data has been collected through video conferencing (especially during COVID- 19 lockdown) as well. All the meetings were recorded for data analysis purpose with prior permission of the participants.

3.3.3 Data Collection

The data is collected in three Phases, namely **Phase I (November 2019- February 2020)**, **Phase II (March 2020- August 2021)** and **Phase III (September 2021- January 2022)** through in-depth interviews with a total of **189 key participants** (Managers/Owners/Karigars/head karigars/industry experts) from unique firms (**formal large firms-7, formal minor-2, semi-formal firms-13, informal workshops-12**) and **9 associations** located across 9 gold jewellery manufacturing hubs (e.g., Delhi, Mumbai, Kozhikode, Coimbatore, Bangalore, Surat, Rajkot, Ahmedabad, Kolkata) from the period November 2019- January 2022 (**refer Table 2**).

Data collection was planned for nine to ten months from the start date of the project (October 2018); However, it took more than **two years'** time to finish data collection owing to

COVID- 19 spread in the middle of the year 2019 followed by countrywide lockdown that resulted into the complete closure of gold jewellery manufacturing facilities. Later in 2019, some relaxation was given to resume the manufacturing, but we could not visit plants/factories due to strict COVID protocol and state-imposed travel restrictions. Also, manufacturers were reluctant to allow the research team to visit majorly collected data in the second and third phases through video calls.

To have a broader and deeper understanding of the labour practices, conditions and engagements in the gold jewellery industry, in-depth structured interviews lasted from 107 minutes to 180 minutes. As most of the karigars were Bengali, we hired a research associate who could speak, read, and write Bengali language. Karigars were very comfortable and vocal in sharing their views with Bengali research associate regarding labour practices in their respective firms. Of late Bengali interviews were translated into English. The translated interviews were again retranslated - in Bengali by another research intern who knew Bengali language for validation

The inductive approach of qualitative study helped us better understand the experience of various key stakeholders, including karigars. Interviews were conducted till saturation in the response was achieved (Charmaz, 2006). All the interviews were recorded with prior permission from the participants and transcribed word by word as suggested by Miles and Huberman (1994) and Morse and Field (1995) for the data analysis purpose discussed in the next section.

3.3.4 Coding process

We have ensured the methodological rigour and trustworthiness in our study using techniques suggest by suggested by Lincoln and Guba (1985) for ensuring credibility (equivalent to internal validity), transferability (external validity), dependability (reliability), and conformability (objectivity). Two independent researchers reviewed each transcription (arrived from recorded interviews and group calls) to identify the major codes (themes). Later both researchers cross-verified their identified codes with each other in case of divergences in codes, clarification interviews were again conducted with respective participants. This process helped refine the codes or themes representing the detailed description of participants' experience regarding labour conditions and practices across the formal, semi-formal and informal sectors. During the initial coding process, major themes indicating major concepts (like working hours, workload, income level, recruitment process, etc.) related to labour practices, working conditions, labour challenges were exactly highlighted. Researchers maintained an adequate balance between knowing and not knowing about the study's labour practices and working conditions to avoid confirmation bias (Alvesson and Kärreman, 2007). We deliberately avoided the existing frameworks/theories on labour practices and working conditions and allowed the data to lead us toward results. However, we were aware of existing frameworks like 'decent wok' as a relevant framework to understand the labour conditions in gold jewellery manufacturing, but we did not force the decent work framework on data rather, we allowed additional insights to emerge through multiple rounds of discussions within the research team and clarification interactions with some key participants. The coding process followed in the study was tedious and reflected the rigor of the methodology adopted (Gioia et

al., 2013; Pratt, 2008). The inductive approach helped us in exploring various new labour dynamics and concepts (co-existence of formal and informal employment, skill development through the informal sector, etc.) that further guided us in developing karigars' talent management framework based on data collected in this research (discussed under findings chapters).

Phase I- Interactions with industry experts and top managers of large firms for questionnaire development: Based on perspectives of industry experts associated with eight associations (e.g., IBJA, Bullion, GJEPC, Ankurhati-karigar park, Hall Marking, Karigars' association, Jewellers' associations, and others) and existing literature on labour dynamics in Indian manufacturing sector we developed descriptive questionnaire (refer Annexure questionnaire shared) to capture the labour conditions and practices in gold jewellery manufacturing formal, semi- formal and informal firms. We anchored our questionnaire around the 'Decent work (ILO, 1999)⁸' framework to capture the quality of employment conditions through various dimensions such as equity at the workplace, social security (retirement benefits and continuity of work), dignity at workplace (treatment given to karigars at the workplace), equal opportunities (equal opportunities for men and women karigar), freedom to form karigars association and others. We started using questionnaires in the study from Phase II of the data collection process. The research team used to interact with karigars and manufacturers to fill out the questionnaire. Of late, responses from the questionnaire along with detailed interview findings were concluded.

Phase II – Interactions with key managerial personnel and manufacturers: HR heads, labour compliance executives, supply chain heads, manufacturing heads, and other business heads were arranged during this phase to explore labour conditions, labour practices and labour engagement in the gold jewellery manufacturing industry.

Phase III – Interactions with Karigars: Field visits to manufacturing formal and informal workshops were made to capture the Karigars' perspectives on working conditions, labour practice across formal, semi-formal and informal workshops.

⁸International Labour Organization (ILO)'s decent work objective is primarily based on four pillars. viz. fundamental rights of workers in the workplace, creation of employment, social protection, and social dialogue (ILO, 1999; 2001).

The following table highlights all the key details of the three phases of the data collection process.

Table 1: Data Collection Objectives and Timelines			
Phases	Description	Timeline	Broad Objectives
Phase I	Both: physical meetings (factory visits) and video conferences (Average Time of Interview - 02:46 Hours)	November 2019 - April 2020	To capture the perspectives of members of jewellery manufacturing Association, Formal Sector, Semi-formal workshops and Captive Vendors
Phase II	Video conferences (Average Time of Interview - 01:15 Hours)	May 2020 – June 2021	Primarily interacted with HRs and Business Heads: Jewellery manufacturing Vendors, Jewellery manufacturing Association, Captive Vendors, Formal Sector, Semi-formal sector
Phase III	Video conferences, Factory Visits, Workshops, Headquarters (Average Time of Interview - 01:03 Hours)	September 2021 – January 2022	Formal Sector, Informal sector, semi-formal workshops

Table 2: Total Data collected during November 2019 – January 2022 (all phases)

	Types	Number of Firms	Number of Meetings	No. of Participants			Number of Unique firms
				Managers / Owners	Karigars / Babus	Total Number of Interviewees	
Phase-01 (Data Collected during November 2019 - February 2020)	Formal	1	2	4	0	195	7
	Minor formal	1	1	1	0		2
	Semi-Formal	6	7	6	0		13
	Informal	1	1	1	0		12
	Association	5	6	6	0		9
Phase 2: Data Collected during March 2020 - August 2021	Formal	6	22	16	0		
	Minor formal	2	10	5	0		
	Semi-Formal	6	15	8	0		
	Informal	0	0	0	0		
	Association	6	6	6	0		
Phase 3: Data collected during September 2021 – January 2022	Formal	3	11	11	81		
	Minor formal	0	0	0	0		
	Semi-Formal	4	6	4	6		
	Informal	11	3	3	36		
	Association	1	1	1	0		
	Total	53	91	72	123		43

3.4 Participants' Profile

Of the total 195 interviews, 123 participants were Karigars belonging to different sectors (Formal firm-81, Semi-formal firm-6, and Informal workshop-36), 72 participants were Managers/Owners/manufacturers belonging to different sectors (Formal firm-31, Mini-formal-6, Semi-formal-18), 13 participants were industry experts associated with various associations (e.g., GJEPC, IBJA etc.) and finally, 4 participants were head karigars (babu) managing 12 informal workshops. All participants in this study were male.

The following section highlights the profiles details of all the 123 karigars who participated in our study:

3.4.1 Demographic Details of Karigars in the Formal Sector

A total of 81 Karigars from this sector were interviewed. The average age of participant was 32 years, S.D = 8.32; Average work experience was 14.2 years, S.D = 8.63. Average time to learn the skill was 2.08 years, S.D = 0.84 and the average salary was Rs. 20,189.87, S.D = 4189.65.

3.4.2 Demographic Details of Karigars in the Semi-Formal Sector

A total of 6 Karigars from this sector were interviewed. The average age of participant the average age of participations was 29.5 years, S.D = 6.65; Average work experience was 14.1 years, S.D = 6.36. Average time to learn the skill was 2 years, S.D = 0.81 and average salary was Rs. 17,333.33, S.D = 2516.61.

3.4.3 Demographic Details of Karigars in the Informal Sector

A total of 36 Karigars from this sector were interviewed. The average age of participant was 35.5 years; Average work experience was 17.47 years. Average time to learn the skill was 2.18 years and average salary was Rs. 19,697.

Chapter 4: Insights from the Large Formal Gold Jewellery Manufacturing Sector

Based on interactions with key stakeholders (e.g., business heads, managers, karigars, head karigars, supervisors and HR heads), this chapter reports the gold jewellery manufacturing model, labour management practices, working conditions and labour challenges faced by large gold jewellery formal and semi-formal manufacturing firms. In addition, karigars' perspective on labour practices, working conditions and various challenges has been reported. Our study indicates employment condition significantly varies depending upon the employment type (permanent, temporary, freelancers, karigar aggregators etc.) that further depends upon jewellery manufacturing model such as inhouse and outsourced manufacturing. Therefore, to better understand the labour conditions and dynamics of labour management in the gold jewellery manufacturing sector, understanding, or understanding of the various manufacturing models is important. The following section discusses the various prevailing jewellery manufacturing models in detail.

4.1. Gold jewellery manufacturing model- Work arrangement.

Gold jewellery manufacturing can be broadly categorized into two categories, viz. in-house manufacturing (around 30%-40%) and outsourced manufacturing (around 60%-70%) in large formal and semi-formal sectors (see figure 4.1). In this study, we found that most large formal firms rely heavily on the outsourcing model of gold jewellery manufacturing (around 70%). Though in-house manufacturing focuses on both machine and handmade jewellery manufacturing, but primary focus is on machine-made jewellery manufacturing (around 50% to 70%), whereas outsourced manufacturing primarily focuses on hand made jewellery (around 50%-70%) along with machine made jewellery (30%-40%). Most formal firms follow a similar manufacturing pattern with slight variation (in handmade vs machine-made gold jewellery) depending upon the firm size (small/large/ formal or semi-formal).

Our study further explored the rationale behind relying heavily on the outsourcing model of manufacturing by large formal firms and found that skill variety (especially for handmade traditional ancient jewellery designs), absence of skilled karigars and cost of manufacturing led to the popularity of outsourced models of manufacturing. Out of the three reasons mentioned above, the major reason is a crunch of skilled karigars especially those trained in handmade complex and traditional designs of jewellery. Informal sector karigars are trained by head karigars from an early stage of their career; hence, the informal sector becomes one of the primary sources of skilled karigars' supply. In sum, design specific-skilled karigars requirements of large formal firms are met through an outsourcing model of manufacturing as it is economically and strategically not viable to have in house full-range of skilled karigars, especially in the context of constrained supply of karigars in the gold jewellery manufacturing sector. Further, gold jewellery manufacturing units are clustered into various regions focusing on regional traditional designs of jewellery. For example, Kolkata cluster primarily focuses on light weight gold jewellery design (e.g., filigree); Jaipur cluster focuses on minakari; Surat

units focus on studded jewellery. Every regional cluster mainly requires specialized karigars in the respective clusters' jewellery design. However, the regional manufacturing clusters co-exist a good mix of specialized and generic skilled karigars (trained in generic jewellery- making processes like wiring, ball making, soldering, etc).

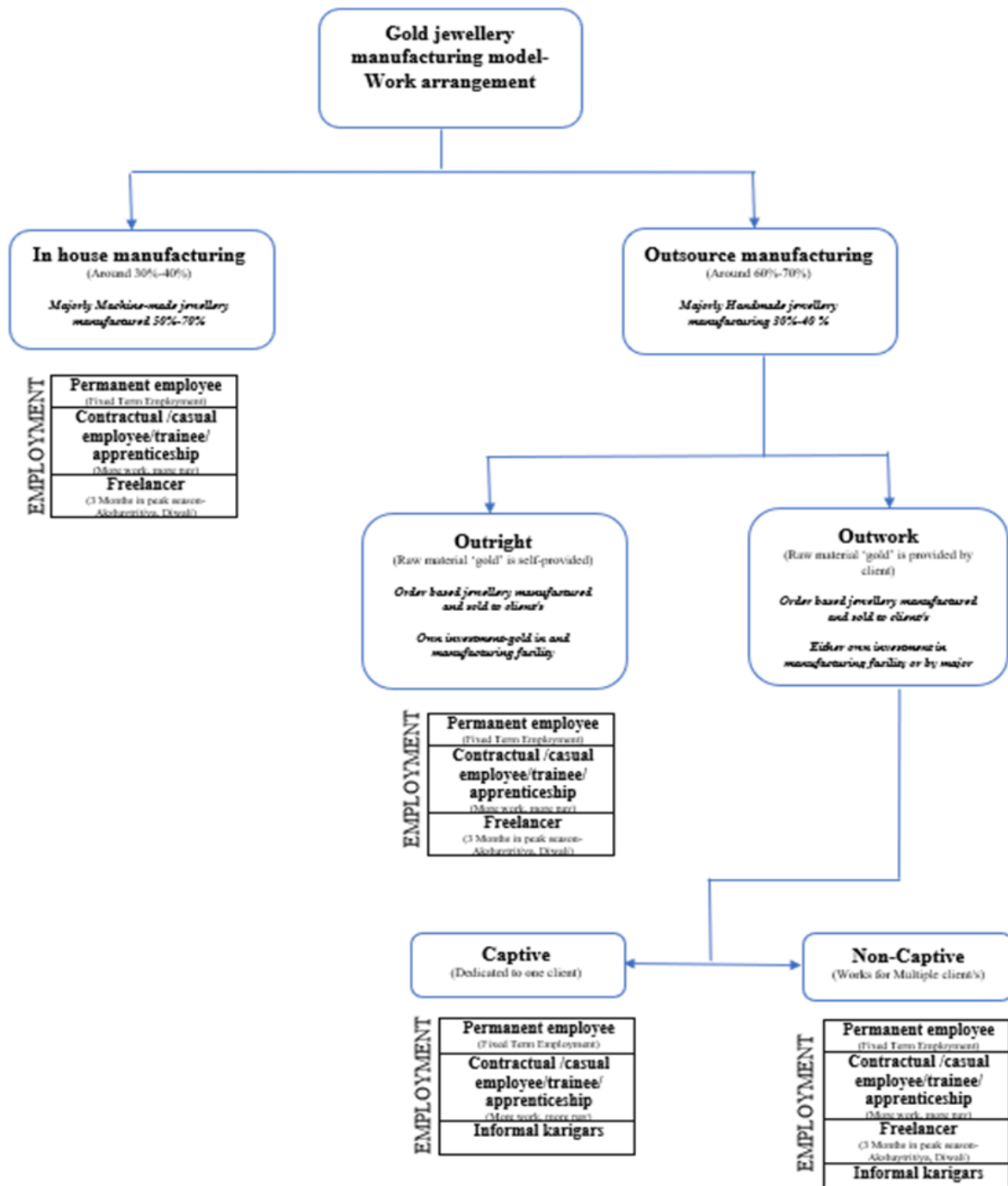
Outsourcing manufacturing can be further classified under two broad categories, viz. outwork and outright model of manufacturing. In an outright outsourcing model, the major manufacturing firm places jewellery orders with the outsourced manufacturer, who then delivers the goods in accordance with the terms and conditions (timelines, design specification, payment timings and mode, etc.) agreed upon by the two parties. Principal manufacturer neither provides raw material (e.g., gold) nor supports/intervenes in the manufacturing process of the outsourcing manufacturer. In addition, most of the principal manufacturer does not audit or intervene in labour conditions, labour practices and work conditions provided by an outsourcing manufacturing firm. Outwork model can be further categorized into two categories: captive manufacturer and non-captive manufacturer. Outwork model refers to the work arrangement where the principal manufacturer supplies raw materials to an outsourced manufacturing firm and supports to the outsourced manufacturing firm in managing manufacturing processes, including labour processes like maintaining good working conditions, workplace safety and healthy work conditions for karigars. We have found in our study that some of the large formal principal manufacturing firms set working condition blueprint for outsourced firms that mentions explicitly the various safety standards, wage security, social security, physical conditions of work and other aspects of employment. Outwork captive means the work arrangement where an outsourced manufacturing firm will manufacture solely for one principal manufacturer. In contrast, under the non-captive category, outsourced manufacturing form may work for multiple principal manufacturers. Sometimes principal manufacturing firms provide manufacturing facility (space) to their captive vendor/captive outsourced manufacturing firm. Our study indicated captive outsourced manufacturing firms have better chances to replicate the labour conditions of large principal manufacturing firms than non-captive ones. However, the principal manufacturer intervenes in setting labour conditions in captive and non-captive outwork manufacturing models. Few large formal firms indicated their preference towards captive vendors in years compared to non-captive vendors. Some of the large firms plan to develop more karigar centres and karigar parks, aiming to add more captive vendors in these karigar parks. One of the participating large formal firms in our study has been practicing the 'responsible outsourcing philosophy', planning to develop more karigar centres and parks in the coming years.

Based on the above- mentioned models of manufacturing (in- house vs outsourcing- outwork vs outright), we identified various employment categories such as permanent employment, temporary/casual employment, freelancers-informal employment, and apprenticeship. Formal firms usually hire permanent karigars for in-house manufacturing and casual karigars (short- term) to meet seasonal demands (during festival seasons). Sometimes for specialized skills, freelancers (independent head karigars having a team of karigars in their informal workshops) are contracted. Under outsourced categories, two types mentioned above of employment exist (e.g., permanent, casual, freelancers, apprentice); however, the ratio of karigars employed through various types of employment options varies across houses, outright,

and outwork (captive vs non-captive) manufacturing model. For example, an outright would have many freelancers/casual karigars along with permanent karigars, whereas in-house manufacturing firms would have a large percentage of permanent karigars compared to casual karigars and freelancers. Outwork-captive manufacturing would have more permanent karigars than non-captive outwork manufacturers. We found that all manufacturing models (in-house vs outsourcing) directly or indirectly employ informal karigars. Therefore, informal karigars (freelancers/head karigars/babu) are integral to the gold jewellery manufacturing sector. Informal karigars are offered minimal employment conditions (only negotiated wages based on assignment), and no social security is provided (for more details, read Chapter 5). The proposed labour reforms (labour codes) by the government of India emphasize social security (social security code) for informal workers as well. In coming years gold jewellery manufacturing sector, which heavily employs informal karigars would witness a paradigm shift in employment conditions (wages, social security, working conditions, union formation etc.) as new labour reforms aim to broaden its scope by including informal workers (e.g., casual, gig, platform, workers, freelancers-informal) under the ambit of new labour codes.

In the next section, we have discussed employment conditions offered by large manufacturing formal and semi-formal firms. We have identified various labour practices such as hiring, performance evaluation, skill development and salaries norms of karigars working in large formal manufacturing firms. Existing labour laws guide employment conditions in the formal sector.

Figure 4.1: Gold jewellery manufacturing model-work arrangement



4.2. Labour management practices

This section elaborates on the hiring, skilling, and wage determination process of karigars based on insights gained from large formal, small formal, and semi-formal firms. In- depth interviews with karigars helped us understand the working conditions and other aspects of employment conditions in the formal gold jewellery manufacturing sector.

4.2.1. Recruitment of karigars

Large formal firms preferably hire experienced karigars who are trained or specialized in specific jewellery- making processes. This trend is more prominent in minor formal and semi-formal manufacturing firms. As per our discussions with various manufacturing firms, we learnt that skilling a karigar takes around 2 to 5 years (depending upon the skill set); hence, most of the formal firms, except a few, prefer to hire experienced and trained karigars. One of the preferred hiring options adopted by most formal firms is ‘karigar referral’ along with other options like ‘walk-in’ and ‘job advertisement’ in local newspapers. We found ‘trust’ is an important factor in hiring decisions (as karigars deal with precious metal) along with other physical (e.g., figure dexterity, vision, reflexes to sit longer etc.) and behavioural characteristics (e.g., customer centricity, service mentality etc.). Karigar referral works perfectly in the gold jewellery manufacturing sector for two broad reasons one, karigars have access to the karigar talent pool (may be due to community connect-social network, their past work experience-professional network, social background -same village, native place etc.) and second, karigar himself evaluates the skills of potential karigars (whom he is referring). Hence, it helps the hiring firm in finding the most suitable skilled karigar. Another reason behind the ‘popularity of karigar referral’ hiring mode is the probability of getting loyal karigars as new karigars are hired from social or professional networks of existing karigars (most of the times, relatives of the existing karigars) that help the new karigars in adjusting comfortably into new workplace and work context. Owing to the social connection between the new and existing karigars, retention of the new karigars becomes easier for the formal firms. Some of the formal firms have their sourcing/hiring consultants located in the state of West Bengal, Odisha and other states (have potential karigars) who directly source the karigars (freshers and experienced) from the field.

Freshers are hired through various state and central government- run apprentice and skill development programmes. We found in our study few large manufacturing firms majorly hire fresh karigars through an apprenticeship programme, where a stipend is paid to the fresh trainees during apprenticeship (on-the- job training in manufacturing workshops) and on completion of training based on their skill proficiency, intelligence quotient and hand dexterity (required for jewellery making) trainees are selected (usual selection ratio 1:5 or 1:10) as new karigars.

In addition to above mentioned two categories of hiring (experienced and freshers) of permanent karigars, there are different processes for hiring the temporary karigars to meet the seasonal requirement. For example, informal karigars are hired for a short- term, like two to three months. They are usually specialized-trained karigars and are paid a fixed salary. Majority

of the formal firms prefer to outsource the work to small formal firms or semi- formal firms (captive or non-captive manufacturing firms), which saves the cost of production and reduces the burden of karigar management. Further we found gold jewellery manufacturing sector is male-karigars dominated. However, few large formal firms have started recruiting women karigars for jewellery making. Manufacturing firms have indicated that women karigars' figure dexterity and inherent patience (which helps in focusing during jewellery manufacturing) can be utilized for gold jewellery manufacturing processes. We found that large manufacturing firms have started hiring women karigars. However, their number is very small (around 1% to 10 % or less), and they are assigned jobs like sorting, packaging, ball making, soldering, setting stones in studded jewellery and other similar routine jobs. On the contrary, we found one of the largest participating formal firms in our study has hired majorly women karigars in one of their manufacturing facilities and found the women karigars' jewellery- making skills unmatched. In the coming years, more formal and semi- formal firms will be seen exploring women karigars' skills for jewellery manufacturing processes.

4.2.2. Performance evaluation and rewards management for karigars

The supervisor or the head karigar conducts performance targets and evaluation. In formal firms, karigars are evaluated based on production targets set on daily/weekly or monthly basis. Based on historical data, performance targets for various sections of jewellery making is fixed. For example, one of the parameters of performance evaluation is the 'quantity of gold' used for jewellery making by a particular karigar weekly or monthly basis. For studded jewellery stone setter's performance is evaluated based on a number of stones set on a daily basis (minimum targets are fixed for a day or week). In some cases, 'gold wastage reduction' is used for evaluating the performance of karigars. Depending upon the work function of karigars, like wiring, soldering, ball making, stone setting, designing and other performance parameters are decided. Almost all formal firms continuously evaluate the performance of karigars based on pre-defined performance parameters (daily/weekly/monthly basis). Almost all large formal participating firms indicated the existence of performance-based pay. Also, defects in finished jewellery attract penalties for the individual karigar and team (if it is teamwork). In gold jewellery manufacturing, both efficiency (e.g., time, raw material consumption, wastage of gold etc.) and effectiveness (e.g., quality of finished jewellery, design complexity etc.) of karigars are measured and rewarded.

In addition to rewarding performance, safety compliances are equally important for large formal firms. Manufacturing department gets rewards linked with a safety compliance audit, which is conducted regularly as per existing labour laws provisions related to workplace safety.

4.2.3. Compensation and benefits of karigars

Formal firms hire three types of karigars: permanent karigars casual/temporary karigars and freelancers (an informal group of karigars hired for 2-3 months (assignment based) through head karigars). Permanent karigars are given fixed salaries ranging from Rs. 20,000 to Rs. 40,000 per month. Also, karigars are paid variable pay based on their performance, constituting

10% to 15% of the total salaries (Cost to Company). Additionally, karigars are paid various allowances such as manufacturing allowance, uniform allowance, paid leaves, and annual bonus (e.g., between 8.33 % to 20% of basic salary as per Bonus Act). During peak season, the average earnings of experienced karigar reaches up to Rs. 50000 to Rs. 60000 per month. All permanent karigars are provided social security benefits such as employees' provident fund (retirement benefits where 12% of basic salary is contributed by employees and a matching contribution comes from the employer), medical insurance, gratuity, leave encashment and other statutory social benefits. Salaries and benefits of permanent karigars are regulated by existing labour laws (now labour codes (e.g., social security, wage code, industrial relations code & occupational health & safety code).

Formal firms hire fresh karigars through an apprenticeship programme and they are paid a stipend (as per the Apprentices Act, 1961) during the apprenticeship period that ranges between Rs. 5500 to Rs. 9000 (few formal firms pay a stipend beyond the statutory limit of stipend as per the Apprentices Act, 1961). On the completion of a successful apprenticeship, a few selected karigars are hired on the company's payroll as full-time permanent karigar. However, they must serve a few months' probation followed by confirmation into permanent service. During the probation period, a fixed salary (e.g., around Rs. 8 000 to Rs. 13000) is paid to probationary karigars. Initially the fresh-trained karigars earn an average salary of Rs. 15,000 to Rs. 18,000 per month whereas, the karigars with an experience of 3 to 5 years get an average salary of Rs. 24000.

Another category of permanent karigars hired by formal firms is karigars on 'piece rate' wages. These karigars are permanent firm employees but they get salaries linked to their productivity. A supervisor or head karigar allocates the work to his team of karigars and monitors their performance on a daily basis. This mode of employment is commonly practiced in small or medium-sized formal firms, particularly in semi-formal firms. We found a critical part of gold jewellery job is allocated to piece rate karigars as they are specialized and self-motivated (pay is linked to productivity) group who may or may not require bureaucratic control (performance monitoring) that reduces administrative costs for the manufacturing firms. Semi-formal firms primarily get assignments from small jewellers and large formal firms. One of the reasons for large formal firms to engage semi-formal firms is to reduce labour and administrative costs. Therefore, semi-formal firms intend to gain a competitive advantage through labour efficiency that can be better managed using productivity-linked pay. Piece rate pay is linked to per gram gold used by karigar for jewellery making, and the wage rate depends upon or based on jewellery category (e.g., necklace, chain, etc.) and design (e.g., filigree, minakari, studded, etc.). For example, for gold chain jewellery making, an average piece rate of Rs. 10 to Rs. 12 per gram of gold is paid to karigar. Similarly for necklaces, the piece rate varies from Rs. 23 to Rs. 30 per gram, and for bangles, it varies from Rs. 5 to Rs. 10 per gram. Every karigar is given a minimum target in terms of gold consumption on a weekly and monthly basis (e.g., 400 to 650 grams of gold per karigar per month). In sum, jewellery design complexity plays a critical role in deciding the wage rate. Piece rate wage model allows the karigars to enjoy work autonomy (as productivity is linked to pay so less monitoring is required) and good earning

potential for karigars. For a freelancer, all formal and semi-formal firms widely follow the piece rate wage model.

Chapter 5: Findings: Insights from the Informal Sector

Based on in-depth interactions with artisans and head artisans, we have identified labour practices, working conditions and challenges faced by the key stakeholders in the informal gold jewellery manufacturing sector.

5.1 Labour Practices in the Informal Gold Jewellery Manufacturing Industry

5.1.1 Entry of Artisans into the Gold Jewellery Manufacturing Sector

There are broadly four reasons for joining the gold jewellery informal manufacturing sector: *social network with gold artisans (trustworthy relationships), personal factors (education, family responsibilities) and flexible employment (working hours, informal relationships with head karigar and, no structured employment conditions).*

We found that most of the artisans joined the gold manufacturing industry under the social influence of their relatives, and most of them joined the industry at a very young age. For instance, many participants shared they joined the industry at the age of 16 or 18 years. Initially, they started working under their relatives like an elder brother, uncle, in some cases their neighbours or friends. One of the major motivations to join this industry has been family responsibilities, lack of education, social influence, and lack of opportunity to work with a given education level.

Further, we found that social capital has emerged as a significant drive to attract new careers in the industry. Most of the participants informed that the choice of selecting this industry was not a conscious decision. They joined this industry because they wanted to work to shoulder their family responsibilities, and their relatives were already a part of it, hence they joined it trusting their network. The importance of social networks becomes critical as being a young karigar, working in some other city or state or far from the native place, requires some level of trust. Due to the social network, the family members of the karigars are assured that our kid is joining this industry with some known person from the family or friend circle. Some of the participants informed us that they tried different jobs at their early stage of career, but they could not get adequate income and employment continuity in other sectors. So, once they saw the relatives working in this industry enjoying an optimum level of income, some savings, and a decent lifestyle in the village. The potential karigar get influenced by existing careers in their network, and hence join the industry.

5.1.2 Skilling of New Artisans

The gold jewellery manufacturing industry requires highly skilled artisans, and developing jewellery manufacturing skills takes around 3 to 5 years. As most artisans have joined this industry with their relatives or under the influence of relatives or known persons, developing jewellery manufacturing skills happens under the supervision of the karigar who have brought the new karigars. In most cases, it is relative only. At the early stage of the joining, a new karigar is supposed to learn by observation, so they sit with the main characters and observe the various jewellery manufacturing processes. After a few months of observation, they start

taking basic work of jewellery manufacturing such as wiring, packing the finished jewellery, measuring the pure gold, converting the jewellery ornaments into gold bricks, etc.

On average, we have found that a new karigar learns the jewellery manufacturing skills in three to five years. During skill development, they are not paid stipend or wages, while most of them are provided with accommodation and food by head karigars. Investment in skill development is huge. Many karigars informed us that at an early stage of their life, especially when they are young, they can afford three to five years to learn jewellery making skills. However, it is quite difficult for the new karigars to learn jewellery-making skills. At a later stage in life, the skilling period does not give wages to the new karigar. Additionally, many karigars shared that learning happens effectively at 16-18 years old. In our study, we have found that most of the karigars have joined this industry at a very young age. Some of them cited finger dexterity as critical for becoming a good karigar. At a young age, it becomes easier to utilize finger dexterity for honing the jewellery-making skills. In other words, on-the-job learning is critical and is the only way to develop jewellery manufacturing skills, especially in the informal gold jewellery manufacturing sector.

5.2 Working Conditions in the Gold Jewellery Manufacturing Informal Sector

A group of five to six karigars work together in a size 20*12 Square Feet workshop. Each karigar keeps ornaments under the light on the desk and sits on the floor to make jewellery. Jewellery manufacturing requires long hours of working under focused light and sitting. The size of the jewellery parts is diminutive such as 300 nanometres, which requires a perfect vision. In this study, we found that, on average, a karigar works for 14 hours and during the peak season, generally from October to December, karigars work more than 16 hours a day. Informal sector karigars prefer to work longer at night and start their day a little late, around 11:00 am. Many karigars informed us that they preferred to work at night as during the daytime, other activities such as order procurement, interaction with the client, getting ornament parts ready from suppliers, and sometimes personal work is done. Some karigars indicated it's peaceful (no disturbance) and safe to work at night. Interestingly, most of the workshops are located in congested and narrow lanes. In some cases, no vehicle can enter the workshop cluster. We have found this pattern in all the workshops across the country. Basic ventilation, cleanliness, and adequate lighting were absent from the majority of the workshops. We found garbage lying outside in the workshop areas and stained walls from spitting. So overall, the work environment was dingy and could be better.

During the process of jewellery making, lots of gold dust is produced, so karigars are encouraged to sit in one place for long hours without taking breaks to avoid gold loss in the form of gold dust. Moreover, the cleanliness of the workshop is not maintained due to the avoidance of loss of gold dust. Some karigars prefer to work shirtless or in minimal clothes to avoid losing gold dust as gold dust may stick to their clothes. We have found that most of the workshops avoid using fans while working on ornaments, mainly because of avoiding gold dust loss. Overall, the temperature inside the workshop remains 35-40 degrees centigrade due to the weather and heat generated through the soldering process. The distance between two karigars sitting in a workshop varies from 2-3 Feet. The odour of various acids used in

jewellery- making processes, such as sulfuric acid, nitric acid, and LPG gas, along with the sweat of karigars in a workshop, makes the working environment stinky and unhygienic. Surprisingly, karigars prepare food in one corner of the workshop and sleep at the workstation. Most of the time, the workshops are owned or rented by head karigars (the one who brings work and recruits karigars). Karigars are therefore provided with free accommodation in the workshop itself. Free accommodation in big cities sometimes acts as an attractive perk for karigars from small towns and rural parts of the country, and only food expenses that need to be borne by each karigar range from Rs. 3000 to Rs. 5000.

5.3 Productivity and Wages of Karigars

Depending on the type of ornament (chain, bangle, ring, necklace, etc.) and design complexity (simple jewellery, studded jewellery, filigree, minakari, kundan, etc.), a karigar processes 300 to 400 grams of gold per month for manufacturing jewellery for instance, complex jewellery like studded jewellery takes a longer time to complete as compared to plain jewellery. Similarly, the complexity of the design decides the productivity targets of karigars. In the informal sector, a 100 per cent variable or a mix of the variable and a small fraction of fixed wages are given to karigars. We found that, variable wage plans linked to productivity are followed in most cases. Among the various ways of variable wage plans, gold wastage plus making charges or gold wastage plus fixed minimum wage plan is followed. Head karigars are given acceptable fixed waste percentage, say 2% to 3% for plain jewellery, 20%-30% for studded jewellery and 4% for antique jewellery. This acceptable waste percentage includes actual gold loss due to various processes involved in making gold jewellery such as melting, filing, cutting, polishing, etc. Further, head karigars decide acceptable gold wastages for their karigars, like 3% to 4% – uniformity-or per cent for plain jewellery and 15% to 20% for studded jewellery. Performance of the karigar is evaluated based on gold wastage saving, finishing and time taken. An efficient karigar prepares gold jewellery within the acceptable gold waste limit and can save gold wastage while making ornaments.

We have found that a karigar earns around 1.3 Grams Per 100 Grams. The average income a karigar earns in the informal sector is Rs. 19562.5 (SD = Rs. 8209.49). Monthly, the karigars spend around Rs. 3000 to Rs. 5000 for meeting personal expenses, and food, and remit around Rs. 5000 to home for meeting family expenses like kids' education, food, etc. On an average, Rs. 8000 to Rs. 10000 is the monthly savings of karigars. As a karigar starts working in this industry at a very early age of around 18 years and spends minimal expenses on food Therefore, in 10 to 15 years, a particular karigar accumulates decent savings. Some of the karigars invest in buying houses or constructing concrete houses in place of mud houses in their respective native places. We were informed that most karigars are interested in educating their children and working towards making a bright future for them.

We found that karigars are earning minimum wage as per existing labour laws in India, that is Rs. 15000 - to Rs. 20000 as per minimum wages declared by the state government of Delhi and

West Bengal where karigars are working⁹. We also found that some of the head karigars were making around Rs. 45000¹⁰.

The karigars receive no social security benefits like a provident fund, gratuity, and medical insurance. We got to know that there is no life insurance, medical insurance, or financial security for karigars. In a financial emergency, the head karigar or peer karigar provides financial support to the fellow karigars. In some cases, karigars have to borrow money from money lenders and others rely on their personal savings.

Apart from salary, there are no other financial benefits given to the karigars. The benefits that karigars enjoy are flexible timings, an adequate number of leaves (they can go home when there is no work) and the absence of a structured working environment (no uniform, no strict monitoring and work- life balance) and an abundance of opportunity to earn as much as possible. Informal sectors give freedom to karigars to decide the quantity of work and timing to finish assignments. One of the major reasons behind flexible employment conditions is variable compensation plans. However, there is always uncertainty around the total income of the karigars because of a hundred per cent variable pay plans.

We found that karigars can accept or reject work assignments and enjoy healthy work relationships in a particular workshop. Most of the karigars belong to the same native place and some have direct or indirect relationships that help them develop trustworthy relationships at work. In many cases, head karigars know the karigars personally and healthy relationships facilitate smooth work flow. Belonging to the same native place (West Bengal), all karigars speak the same language (Bengali)strengthening the relationships among karigars and clarifying their work understanding. In some cases, head karigars invite the opinion of karigars in deciding the jewellery design and seek their views about various aspects of the jewellery manufacturing process. In most cases, jewellery design is provided by the clients (jewellers) to the head karigars and karigars have to follow the design. We found that even if the clients provide the design, the head karigar has to discuss the design with karigars and seek their inputs on gold requirements, timelines to finish assignments and some suggestions to improve design further. We did not find any forced or child labour in this industry, though karigars at a young age are considered the best talent pool that gets trained easily. The social capital at work helps the karigars to learn jewellery- making skills.

Another fascinating insight that we found is the continuity of employment and work. As most of the karigars are under job work arrangement, therefore, work assignments come from the formal and semi-formal sectors. Hence, there is a continuous flow of work assignment to the gold jewellery manufacturing workshops in the informal sector.

⁹https://www.google.com/search?q=minimum+wages+for+delhi&rlz=1C1SQJL_enIN925IN925&oq=minimum+wages+for+delhi&aqs=chrome..69i57j0i512j0i22i30l8.25704j0j7&sourceid=chrome&ie=UTF-8,

¹⁰<https://workforce.org.in/blog/minimum-wages-in-west-bengal-july-2021/>

Surprisingly, none of the workshops had any female karigar. Male karigars predominate in the informal sector's gold jewellery making. One of the reasons we discovered that the knowledge of producing jewellery has only ever belonged to male karigars and has only been passed down to them is because of the patriarchal nature of Indian society, which assigns the major earning obligation to the male members of the community. Another reason we found that the working environment is unsuitable for women karigars in informal workshops that 6 to 8 karigars stay and work together in the same area. Because of the favourable workplace climate, we anticipate that woman may be able to participate in the formal sector's jewellery manufacture. In conclusion, the informal sector dominantly employs only male karigars who work in small workshops that unfortunately have an unhygienic and dingy work environment.

5.4 Employment and Growth Opportunities (Karigar Lifecycle)

The Karigar life cycle in the informal gold manufacturing sector can be categorised into five stages, as shown in figure 1.

In the initial Stage I, boys at a very early age (16 years) join the gold manufacturing sector, popularly known as *Chokra* or apprentice, to learn the skills free of cost to become experienced karigars. They mostly come through relatives, known persons, friends, and work on basic skills like melting gold, handling inventory, making tea for other karigars and taking basic works for which, they are not paid basically- overuse of basic and basically, they join on the job learning.

In Stage II represented in the (karigar lifecycle) that on-the-job learning happens, in which knowledge of jewellery- making skills is acquired after 2 to 5 years of learning, depending on the design and specialization of the particular function (necklace, bangle, rings and others) of jewellery- making which leads to two possibilities to enter into next stage.

In Stage III, there is a possibility of choosing either Stage III A or Stage III B. In stage III A, a karigar can be motivated to join the informal sector and start working as a skilled karigar independently by their own choice or in stage III B, a karigar can choose to start working in the formal sector/workshop or factory.

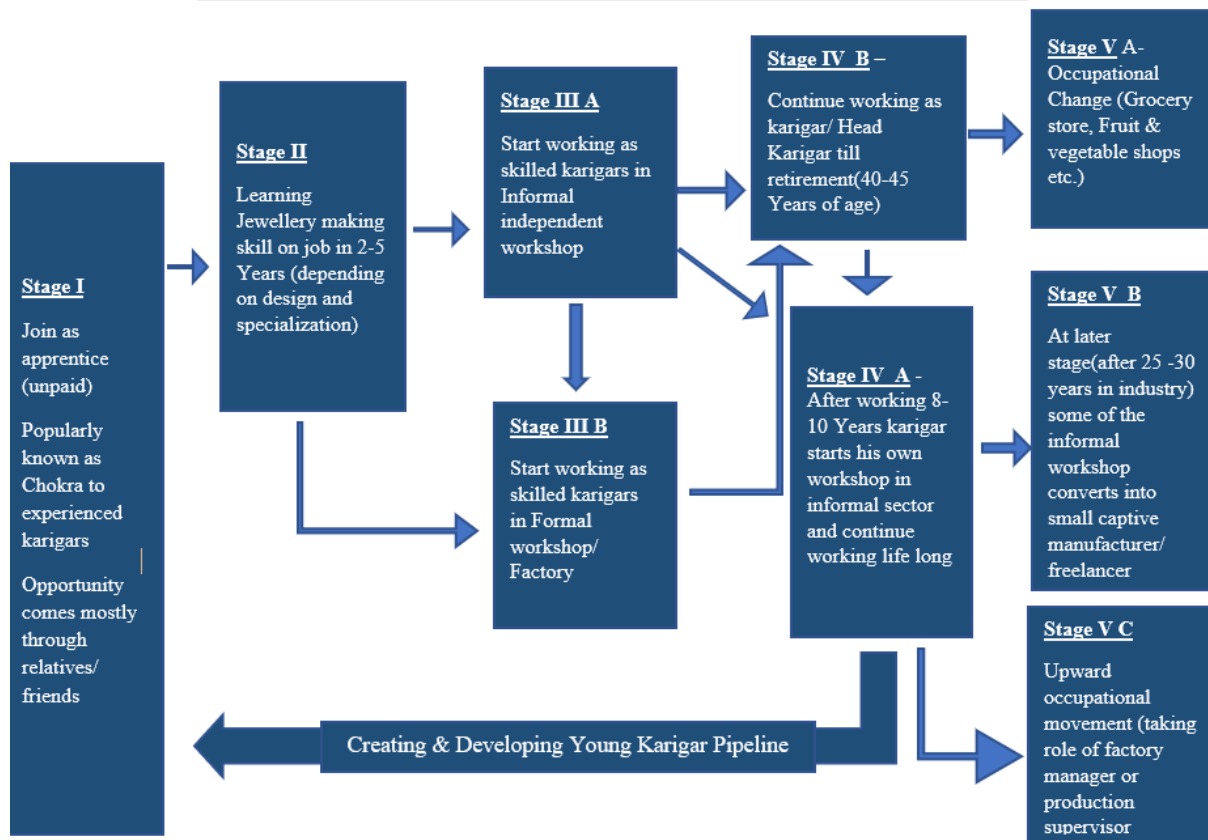
In the next Stage IV B, a karigar can continue working till retirement age (40 years - 45 years) if working in the informal independent workshop and there were three possibilities. First, in Stage III B, karigars working in the formal workshop can enter Stage IV and keep working till retirement (40 to 45 years). The second possibility is that karigars working in Stage III A (informal independent workshop) can enter Stage IV A. After working for 8 to 10 years, the karigar/head karigar can start their workshop in the informal sector and continue working till life. The third possibility is that the karigars/ head karigars enter Stage IV B. After 40 to 45 years of age, the karigar or head karigar starts his own workshop in the informal sector and continues working till life. And if all the possibilities are meeting Stage IV A, a pipeline is created for developing young karigars, and the karigar life cycle is reiterated as seen in Figure 1.

In the final Stage VA, the occupational change in which the karigar/head karigar after taking early retirement at the age of 40 to 45 years, start their businesses- like grocery, fruit, vegetables, or cosmetic shops).

At Stage V B, after gaining experience of 10 years and at 20 to 25 years in the industry/formal sector, some informal workshops convert into small, captive manufacturers or freelancers.

In the Final Stage VC, there is again a possibility of upward occupational movement. In this stage, the karigar/head karigar after working for 10 years opens their workshop in the informal sector and , takes the factory manager or production supervisor role and continues working.

Figure 1: Karigar life cycle in Informal Gold Jewellery Manufacturing Sector



5.5 Safety Measures and Gold Dust Collection

As karigars are working on precious metals and on an average at a particular time, a given karigar has a gold inventory (raw gold, semi-finished gold, and gold jewellery parts), worth rupees 4 to 5 lacs and in the workshop at a given point inventory (gold dust) worth Rs. 20 to Rs. 25 lacs are present. The risk of gold theft is extremely high in this sector. Therefore, trust plays a vital role in hiring new karigars. In fact, the head karigars get assignments based on their reputation of being reliable and trustworthy. In our conversation with the head karigars, we learned that there were many theft instances where karigars ran away with the gold assigned to him for making jewellery. Recovery of stolen gold is challenging, hence most of the karigars are recruited from known social networks. In case of theft, the head karigar has to pay for gold loss to the client as he is directly responsible to him. We observed that all workshops were in very narrow spaces and lanes leading to these workshops. In many cases, workshops were located on higher floors having steep stairs. These constructions and locations provide safety and security against any theft. The locations could be clearer having multiple lanes that makes it impossible for strangers to reach these workshops without guidance. Moreover, workshops have double iron doors and karigars prefer to work in closed doors, making the work environment suffocating and congesting. We found that there are informal workshop clusters in each city. One cluster consists of hundreds of workshops that help in the safety and security of the workshop. Most of the workshop clusters are surrounded by various auxiliary units involved in making different jewellery parts such as wiring, melting, refining, polishing, hallmarking and others. It makes it easier and safe for the karigars to get all manufacturing processes within the same cluster.

Most karigars are paid based on gold dust coming out while making jewellery through various processes such as filing, soldering, casting, polishing, cutting and others. Karigars keep collecting gold dust at their designated desk and a register is maintained that mentions a record of gold inventory received, the weight of jewellery prepared from inventory, gold dust collected and gold dust lost in the jewellery- making process. The head karigars verify these records after every assignment and payment is made for the particular assignment. Usually, gold dust collection payments are made every week or twice a month. The quantity of gold dust depends upon the complexity of the design (plain versus studded jewellery) and the volume of gold used in making jewellery. Every karigar collects direct gold dust from their workstations and keeps them in secured boxes. Indirect gold dust gets settled on floor mats and clothes of karigars. This gold dust is difficult to recover, and a specialized agency collects this indirect gold dust. For instance, these agencies collect an old floor mat every year and a new mat is given to the workshop. Sometimes, a small amount of money, say Rs. 500 to Rs. 700 is given to the workshop along with a new mat. Also, karigars are provided with a vest and shorts by these agencies free of cost. The old clothes are replaced with the new ones weekly by the gold dust collecting agency.

5.6 Reasons for Precarious Employment in the Gold Jewellery Manufacturing Informal Sector

5.6.1 Kingship at Workplace

In this industry, employment relations are built on trust and kingship. Most karigars join the sector based on their social network and trustful relationships with fellow karigars. Most karigars in a workshop belong to the same place, sometimes from the same family and community, so social capital becomes central to work relations. Head karigars get work based on their reputation in the market, primarily built on past trustful business exchanges of that head karigar. Right from the selection of karigar to the allocation of work and getting work assignments from jewellers, it all depends on the social capital of karigars. We found that most karigars stay together, prepare food together and share a warm relationship with fellow karigars in a particular workshop. There is also an economic benefit of staying together, the cost of living drastically comes down for each karigar which helps them in save despite having a low income. Another advantage of a strong relationship is the safety and security of the precious metals they handle. We learned that at a particular point, a karigar holds inventory worth 4 to 5 lacs. Social relationships help the karigar trust each other a sense of security among karigars.

5.6.2 Chasing the Golden Deer (Wilful Servitude)

In this study, we found that almost all formal organizations outsource work (jewellery manufacturing) around 30- 50 percent to informal workshops. There is a huge demand for skilled karigars in the gold manufacturing industry. Most formal and semi-formal organizations rely heavily on informal sectors for jewellery manufacturing. We found that a lack of gold jewellery skill development programmes further exaggerates the karigar crunch in this industry. Moreover, karigars from one particular place (West Bengal) create dependency among all manufacturing units. In addition, the initial investment is learning the manufacturing skill is vast as it takes 3 to 5 years to master the manufacturing skills and on-the-job skill development is feasible in the informal sector compared to large formal organizations. Therefore, formal organizations prefer to recruit experienced karigars over fresh karigars. In other words, the informal sector provides trained and skilled karigars to formal and semi-formal sectors.

Despite the demand for skilled karigars in this industry, manufacturing units' working conditions, especially in the informal sector are poor. In our conversation with karigars, we found their introduction to the industry is through relatives. The karigars had a chance and eligibility to work in a large formal organization. However, they chose to remain in the informal sector. They further added that flexibility (work and employment flexibility) kingship, opportunity to earn high income and freedom were significant reasons for choosing the informal sector over larger formal firms. Most of the informal karigars are contented, satisfied and happy working in workshops. There is no qualification barrier between formal and informal sectors for karigar mobility as both sectors hire karigars based on skills rather than academic qualifications. Unlike many other gold manufacturing industries, informal karigars have large formal employment opportunities but still decided to remain in informal sectors. When we asked about poor working conditions in the informal sector, they give more weightage to flexibility and income opportunities over clean and comfortable workstations in

formal sectors. We found that informal workers are chasing the golden deer (in Hindu mythology, the golden deer was an illusion created by the demon Ravana to divert Lord Rama so that Ravana could kidnap his wife Goddess Sita). In a nutshell, the golden deer has been used in place of illusion to trap someone.

In the gold industry, especially in the informal sector, payments to the karigar is based on gold wastage. The more complex the design, the more wastage will be given to karigar, and it requires longer sitting to finish work. We were informed that informal sector karigars sit longer, avoiding breaks to save more gold wastage to enhance their earnings. And further, 100% variable compensation is paid to the karigars. They are motivated to work for longer hours in anticipation of earning more. Therefore, the karigars are ready to accept poor working conditions to earn more. To our surprise, there is little difference between the income level of formal and informal karigars. In many cases, the informal karigars earn more than the formal karigars. We found that the informal karigars display wilful servitude by accepting poor working conditions in anticipation of earning higher income despite having the opportunity to join the formal sector. We found fascinating insights in this industry: labour mobility in the formal and informal sectors is free from all barriers such as education level, lack of opportunities in the formal sectors and lack of adequate skill to join the formal sector. Unlike other industries, in the gold manufacturing industry, wilful servitude prevails among informal karigars and with their choice, they select the informal sector to work.

5.6.3 Cost Sensitivity of Head Karigar (Babu)

The workshop is either owned or rented by head karigars. Most of the time, the entire house of the head karigar or part of the house is used for workshop (2-3 rooms of size 10*12 Sq. Ft). There are no restrictions on the number of karigars accommodated working in one room. Depending on the workload karigars adjust in a particular workshop. Sometimes in a workshop of size 10*12 sq. ft., 5 to 6 karigars set up their workstations and all work together. In sum, there is no standard for choosing workshop space and size; rather, it all depends on the rental cost of the workshop or extra space available for the workshop in the head karigars house. Therefore, most workshops are very small, dingy, and suffocating places. Another reason for a smaller space is the safety and security of inventories. In bigger cities like Mumbai (Zaveri Market), West Bengal (Sinthi More and Bow Bazar), and Delhi (Chandni Chowk and Karol Bagh), there is a cluster of workshops and karigars prefer to work in these clusters as it is closer to the market and have access to the related ancillary unit. It is a tough space in these clusters, and sometimes it is safer to work in these crowded clusters. In this study we found that head karigars provide accommodation and workspace, therefore, cost sensitivity of karigars is one the major reasons for small, dingy, and suffocated workshops. At the same time, karigars and head karigars feel safe in small workshops and prefer to work behind closed doors without fans.

5.7 Challenges Faced by the Karigars in the Informal Sector

5.7.1 Physical / Medical Challenges

In this study we found that on an average a karigar works for 14 hours (SD = 1.96) and during peak season generally, in October to December karigars work more than 16 hours per day. Moreover, they work under LED light on jewellery size of 300 nanometre that stresses the eyes. In conversation with karigars, we found that after 40- 45 years, it becomes difficult for karigars to continue work in this industry especially, with spectacles. Another physical challenge that karigars face is the “ergonomic issues” due to long sitting on the floor. Interestingly, almost all karigars confirmed that they are comfortable working on the floor and have developed a habit of the same. Some karigars acknowledged the difficulty of sitting on the floor for long. During the process of jewellery manufacturing, karigars inhale lots of gold dust and fumes that have the potential to cause breathing issues. None of the karigars have health insurance and no one visited the doctors for regular health check-ups. In this study we found that most of the karigars leave this industry for various health issues especially after 40-45 years.

5.7.2 Crunch of Young Karigars

Following are the major reasons for the absence of a young karigar pool in this industry viz., i. *Time: 2-3 years investment in mastering gold jewellery manufacturing skills*, ii. *No salary during the skill development phase (2-3 years)*, iii. *Over- reliance on informal workshops for skill development in the absence of formal skill development opportunities* and iv. *Stressful working conditions* in the informal sector. The only avenue available to young karigars to enter gold manufacturing is through referrals in the informal sector as generally formal firms, except few are reluctant to hire fresh karigars. One of the reasons for the reluctance of large firms to not hire fresh karigars is the time investment in developing new karigars and the absence of formal skill development programmes. Moreover, jewellery manufacturing skill is difficult to codify and hence, job skill development is the effective way of karigar development that requires minimum 2 to 3 years.

There are some initiatives by the jewellery association to develop young karigars through formal training and certifications, but that also requires on-the-job training for mastering the jewellery manufacturing skill. In some jobs, learning especially under the observation of the karigar is an effective way of skill development in this sector which is possible primarily in the informal workshops where experienced karigar trains their kin in the jewellery manufacturing. After mastery of jewellery manufacturing skills, young karigars can move to the formal sector or remain in informal workshops. The entry of the karigar in gold jewellery manufacturing is happening through an informal workshop offering poor working conditions, lack of decent work and work uncertainty. Potential young karigars feel discouraged from joining this industry thinking of the informal sector’s poor employment conditions; however, through relatives some of the young karigars gather courage to join the industry through relatives. We found that most of the karigars who enter the industry lack education (7th Standard max.), employment opportunities in another sector and are facing a financial crisis. Therefore, some karigars under the social influence of relatives and to disburse the family responsibilities, join informal workshops. As young karigars join their relatives, skill

development becomes more accessible under their supervision. Moreover, the salary paid to young karigars while learning jewellery- making skills, which discourages the young karigars from joining the jewellery manufacturing sector. In a nutshell, this industry relies on informal workshops for skilled karigars, and employment conditions offered by informal sectors discourage young karigars from joining this industry.

5.7.3 Absence of Union or Karigar Associations

In this study, we found that functional karigar associations are absent. In our conversation with karigars, we found that a few associations who support karigars only in resolving conflict among karigars and hardly provide protection to them. No channel that may integrate fragmented informal workshop karigars for negotiating better wage rate and employment conditions in the informal sector.

Chapter 6: Co-existence of Formal and Informal Employment in the Gold Jewellery Manufacturing Sector

6.1 Informal Employment in the formal sector

The formal and informal sectors coexist in the jewellery manufacturing industry. From our observation we have found that in large formal firm the manufacturing of gold jewellery is divided into two broad categories: First, category where firms have their own in-house manufacturing facility and employ their own employees. Second, category where manufacturing is outsourced to external vendor/manufacturer either under outright model or outwork model of manufacturing arrangement. Further, under outright model vendor has his own manufacturing facilities including workforce and raw material. On the other hand, in the outwork model, unlike outright outsourcing raw material (gold) is supplied by the client formal firm. Manufacturing outsourcing is further divided into two broad subcategories viz., captive, and non-captive vendor. In the case of a captive vendor, the manufacturer exclusively manufactures for its primary client only unlike, a non-captive vendor who works for multiple clients.

In all manufacturing model, there is a huge dependency on informal karigars. For example, even for in-house manufacturing during peak seasons or specialized jewellery design head karigars or informal freelance karigars are hired by large formal manufacturing firms for a piece rate basis (non-regular employment/informal employment). These informal karigars or head karigars either work from their own respective workshops/manufacturing facilities or temporarily get space at clients' place (large appointing formal firm). After completing work, these informal karigars leave as they are not part of permanent or regular employment. No social security (provident fund, leaves, bonus, or other statutory benefits) is offered to these employees as they are not regular employees though working for large formal firms sometimes in their space. Similarly, vendors too can get extra work done through informal karigars regardless of vendor category (captive vs non-captive). In this study, we have observed few large formal firms are concerned about the labour practices and standards been followed by the vendors, especially in the case of captive vendors. Some companies have been found to follow the 'responsible outsourcing and manufacturing' where concerned firms follow all legal compliances and ensure their vendors also follow the labour compliances and provide a healthy and safe working environment to all karigars. Such firms conduct regular labour audits to address deviations or labour compliance issues. Vendors are sometimes trained, to be aware of healthy manufacturing and labour practices. On the other hand, we have found certain formal firms, especially under outright (non-captive) manufacturing model, do not interfere in labour management practices of their vendors. In such cases, vendors are free to decide the type of employment offer and employment conditions for their workforce. We have seen the deployment of informal karigars in varying degrees across all models of manufacturing.

In nutshell, informal employment exists in large formal firms in various forms (peak season recruitment, fixed- term employment, freelance karigars etc.) and through various routes like deployment of informal karigars by vendors. Therefore, it is evident that informal employment cannot be avoided in the gold jewellery manufacturing sector in India.

6.2 Informal employment in small- scale formal or semi- formal manufacturing firms

In this study, we found that for small semi-formal gold jewellery manufacturing firms predominantly two major manufacturing models exist. First model refers to having an in-house dedicated manufacturing facility with few employees. And in the second model, firms do not employ the karigars, they appoint the head karigars or managers or supervisors and karigars are recruited or employed by head karigars. Manufacturer or jeweller has no direct employee-employer relationship with the karigars as they employ only head karigars not karigars. However, working space, food, and sometimes accommodation cum working space is provided by the manufacturer to all karigars. We have found the latter model as the dominant model of manufacturing in Delhi, Ghaziabad, Meerut, and NCR regions among semi-formal manufacturing firms. Most of the small manufacturers in this sector have been found to follow this model. Therefore, all karigars working under the second model come under informal employment as they do not have social security, formal employment offer and formal employment benefits like paid leaves, promotions, and other statutory benefits offered to permanent employees. Moreover, there is lack of work continuity. If there is no work, there will not be salaries for the non-workdays. Also, working conditions are poor. In some large semi-formal manufacturing firms, we have found they have a mix of two sets of employees, first is the regular ones and second is the piece- rate employees. Piece rate employees informal karigars recruited either for short term or fixed term with no statutory and minimum employment benefits. Therefore, in semi-formal and small formal manufacturing firms, informal employment exists and has been dominantly offered compared to formal employment. In addition, we found some of these semi-formal or small formal firms support the large, big manufacturing firms. These interlinkages further suggest informal employment across formal, and semi-formal sectors; hence, formal, and informal employment co-exist in this sector.

Ankur Hati (a kind of karigar parks) is one such example of coexistence of informal and formal employment. For instance, there are certain vendors who provided: formal employment comfortable sitting arrangement, fixed working hours, clean and hygienic work conditions, food to the karigars, a good place to stay in the hostels and continuous employment. We would like to highlight that all these vendors were working for either one large formal firm/client, small jewellers or multiple jewellers/clients.

6.3 Variants of informal employment in the informal sector: Role of trust in informal employment

In the previous section, we discussed how karigars indirectly (through head karigars, vendors) get associated with formal and semi-formal manufacturing firms? Having said this, the next question is, can't a karigar directly get work in the gold jewellery manufacturing sector instead of joining through head karigars. In many cases, even the head karigar cannot get direct work in this industry, so they must get employment or work indirectly through renowned vendors or reputed semi-formal or small formal manufacturer. In fact, most of the informal workshops are either connected to semi-formal firms or large formal firms through the vendors. Hence, workflows to the informal sector from large formal firms through semi-formal firms, vendors, or head karigars. We have found reputation of karigars, along with their skill play a critical role in getting employment in this sector.

We have found it difficult for new head karigar or karigar to get direct work assignments during the initial years owing to the risk of gold loss/theft by new karigars. Our observation showed that in most cases initially new karigars are given very small amount of gold say 100 grams to 250 grams. As the trust is developed between the head karigar and the jewellers, they start taking or giving a good amount of gold which becomes the key to success or building a work relationship. This industry builds on trust and reputation. This is also validated by our visit to Kolkata in the informal sector, where we have found that each karigar at a time carries gold worth Rs is used elsewhere Rs.4 lacs to Rs.5 lacs. So, it means a team of 4 to 5 karigars carry Rs.20,00,000 to Rs.25,00,000 at a particular time. This is regarded as a huge amount from workers or karigars perspective. Thus, trust acts as a major binding force between karigars and jewellers.

Another route to get informal employment is by leveraging the reputation of established head karigars. In this model, head karigars works as mediator. During our visits, we found many such head karigars who act as mediators and provide a platform to aggregate all these small or new head karigars or karigars under one roof. These head karigars/aggregators have earned a reputation in gold jewellery manufacturing while working in this sector for generations. They are utilizing their social and human capital to get work for informal karigars and indirectly organising groups of small informal, unorganized workers.

As we mentioned earlier, trust is a major binding force in this industry and the only criteria to get the job. Now, as these people have worked as head karigars for generations with jewellers they, have built a strong social capital and a relationship full of trust. Here what needs to be understood is that even if the babu or the karigar does not have any social capital, they can still manage to get the gold work from the jewellers through established head karigars or aggregators.

In nutshell, we have found two significant routes one, small manufactures, vendors, karigar parks like Ankurhat, and the second is through renowned head karigars or aggregators to get employment or work assignments in the informal sector.

Chapter 7: Way Forward: Formalization of Informal Gold Jewelry Manufacturing Sector and Skill Development

7.1 Case study of Ankurhati (Karigar park), West Bengal

7.1.1 About Ankurhati:

The different state governments in our country now initiate a new form of the workplace for the gold jewellery manufacturing artisans. One of which is the “*Gems and Jewellery Park*” Ankurhati. It is in Domjur, Howrah West Bengal. The West Bengal Industrial Development Corporation Limited (WBIDC) has initiated and later set up Gem and Jewellery Park at Ankurhati, which is spread across approximately 7 acres of land. Mr. Ashok Bengani is the current President of Ankurhati Gems and Jewellery manufacturers welfare association.¹¹

History:

The concept of Ankurathi was earlier discussed in the meetings held by the local government officials in Kolkata, with an agenda of supporting the artisans of jewellery manufacturing as many people of Bengal are involved in this industry state is duly responsible for the betterment of artisans engaged in the gold jewellery manufacturing industry. The handmade jewellery is originally from Bengal, and close to 60 lacs plus artisans are involved in the industry approximately 75% of artisans are Bengali which is known to be God gifted by the art, which they replicate on the ornament worn around India and as well in other foreign countries.

It was observed that artisans are not taken care of in terms of their lifestyle and working conditions, for which a supporting hand was much needed from the government in terms of policies are a concern. West Bengal is famous for its handmade jewellery, and exposure to gold jewellery is the highest in the country.¹² For initiating a healthy lifestyle and better working conditions for artisans in our country, the concept of Ankurhati. Many big formal companies and exporters have come forward and established their manufacturing workshops at Ankurathi.

7.1.2 What is looked forward from the government?

- This industry needs a lot of support from the government as far as policies are concerned.
- First, the import policy should be relaxed. As jewellers should be allowed to import independently. Ultimately suited through the system.
- Banks have their commissions, so the bank will not work without any charges.
- If any jeweller has the manufacturing set up, they can import gold from around the world and in any quantity but it should be at least more than a kg.
- GJPEC runs some institutes. If they look forward to increasing employment, they should open more institutes.
- Institute to develop the skills of artisans where they can learn the process of jewellery making. Skill India funds can be used for such institutes.

¹¹ <https://www.wbidc.com/home/industrial-parks/gems-jewellery-park>

¹²Data is validated from GJEPC

- 3D is one concept that is challenging for everyone to understand.
- Currently, they are supporting 29% of gold's requirement as far as jewellery is concerned.
- The total demand of other countries like Switzerland, Germany, France, and Italy is much ahead of them. They can do this, and up to 50% of their young people will join them.
- Young and well- educated people in this field can help develop this industry, and India can compete with other countries. They can make this industry lucrative for youngsters then only they can have the supply of talent.
- They are looking forward to the government so that the policy can be changed. The Gold Deposit Scheme, i.e. GMS is a scheme told by the RBI in 2015 and was tabled in Parliament in the 2016 budget. Idle gold can be deposited and returned for it. Depending on the tenure, depositors will get 2.25- 2.5% of interest on their deposit. The temperature was 1-3 yrs./3-5 yrs./5-7yrs or more. 2.5% to more than 5yrs.
- All that money could be used for disciples, to build orphan houses, free education, free treatment, and social welfare.
- From the last 4-5 years they have been losing their skilled karigars. So now their main objective is to retain those karigars.
- Since taxes are levied on this earned interest. Their request is to withdraw these taxes. It should be free from all taxes like income or capital gain tax. This means interest income to the depositor should be tax-free. For example, for 10 crores of deposit, under 30%, the depositor gets 3 crores.
- Manufacturing alone supports 45% of GDP. This industry contributes 7-8% to the manufacturing sector. 1% GDP is equal to 2.75 trillion dollars. So they ask why the government is so blind and deaf towards this industry. As jeweller they want to say, we are offering 2.5%, plus 2.5% to the bank/ nominated agency from where we will deposit gold. Where they were giving 12.5% taxes on the imported gold, they are getting deposited in just 2.5%.
- MSME, Brand India, and Skill India will be covered in this program and the government will save the GDP. There should be incentives for the ones following the compliance.
- There should be some way to compensate for the cost they incur, like in terms of tax or something else. They also suggested to the government also that lab faculties are not available. The faculty doesn't have practical knowledge, so they want to appoint a master trainer as an artisan. Faculties have theoretical knowledge, but practical knowledge is also required. They suggested that experienced artisans can give training to the new people and the existing artisans also.
- Geographically Bengal is situated in such a place where they can have a lot of access to the southeast Asian parts from that particular place, so that is why a lot of people are working there.

7.1.2 Working conditions at Ankurhati:

- A highly hygienic place with proper working condition
- Table and chair.
- A modern way of working conditions for the karigars.
- Air-conditioned atmosphere.
- Suitable machines, gas bank, fire alarm, electric system.

7.1.3 Advance Working Structure at Ankurhati

- Now the artisans get 18,000 salaries if they work for 8- 10 hours.
- And with the atmosphere like sitting at the table and chair, drinking RO water, eating good food & working in a healthy atmosphere.
- They are wearing uniforms.
- Ultimately the government is also looking forward to this.

7.1.4 Working conditions at other workshops:

- They stayed in a filthy environment with very poor working condition and no facilities. And the change was always difficult.
- They had adapted to such conditions.
- No opportunity to come out of that shabby working condition.
- The old photographs of the people working there was terrible.

7.1.5 The number of workers:

- Earlier, they exist in child labour, but now no such cases.
- Close to 60 lacs people are working already at Ankurrathi and West Bengal itself has 3 lacs artisans.
- As geographically, Bengal is situated in such a place where we can have this access a lot. So, wherever opportunities they are getting, they are pulling it back. Also they have the vision that this park will become an iconic place in India so that people can see how they run Ankurhati Park.

7.1.6 Safety Measures:

- The apex body that regulates the industry are GJEPC and IBJA.
- The association have requested to GJEPC, that they want all those directors who get bankrupt or fraud. Their entire profile should be made public so that they don't open up a new shop with another name and scam again to the people.

7.1.7 Revenue (Profit and Loss)

- One of the technical points is that if melting gold, its value reduces. It will have 18-25% of weight loss because of the substances mixed in it while making that jewellery. So, this loss is also applicable at the time of deposit. They receive a deposit only after melting the gold.

- Now, the GST is 3%. Earlier, it was 2%. 1+1, 1 VAT and 1 Excise duty, So they have also demanded the removal of excise duty from the Ministry.
- As for exports, wastage is fixed, which is 4-6gms per kg. That is the norm. Hence it can be accounted for under GST.
- In Ankurhati, they started this concept of selling the dust (waste) and send it to the refinery. It gets covered in GST too. Karigars get paid in waste. 1.5% of 1 kg gold is their revenue.
- Around 30% of the cost will be incurred which small suppliers cannot reimburse.
- Cost increases in infrastructure, machinery, compliances, and security.

7.1.8 Technology:

- XRM machine is placed to measure the purity and weight of the gold. The cost of the machine is 24 lacs.
- Also, CRR is fixed for 180 days for our trade.
- On the site of RBI, documents related to GMS (Machine) are available.
- Central facility tools systems. Where one small set up will cost them 2-3 crores Rupees.

7. 1.9 Process to extract gold accountability as a whole based on antique:

- This process is taken care of by the machine. (XRM). Gross grams are calculated, and then impurities are accounted. Pure gold is calculated on the basis of that, and then the deposit is taken on that basis.
- For the customers, it is done for hallmarking. The machine used for hallmarking gives accurate values. The chances are of slight deviation from accuracy, like 0.1 – 0.2%.
- Also, they are with hallmark, particular about (1-5 gm) of gold should be taken out of hallmark and let it be as a gift item.
- It can use by people, esp. Millennials, as a gift item.
- 0-2 gm is now not hallmarked.

7.1.10 From where the supply comes:

- India supports 29% of gold's requirement as far as jewellery is concerned. Total demand of other countries like Switzerland, Germany, France, and Italy is much ahead of them.
- Import of gold is touching CAD (Current Account Deficit) and GDP.
- Import duty increased to 12.5% last year, leading to an increase in the grey market.
- Initially, the sector was in the process of getting organized after demonetization and GST, However, increased import duty and taxes brought it back to square one thereby increasing the grey market.
- According to them, on the one hand, they are importing gold, which is eating the foreign reserves, and on another hand, it is getting hoarded. Because of Muthoot's finance, gold loans (GML) options became available.
- Another option is the selling of gold.

7.1.11 How will Hallmark rectify the entire supply chain?

- Whatever commodity is purchased today, the manufacturer does the ISI mark on that commodity. They get a license for that. Similarly, they get a BIS license to do this hallmarking, so they have requested that let manufacturers do this hallmarking. They know better about the purity of the gold in their jewellery. But not the manufacturer is kept aside, and it is the retailer's responsibility. So, now the process is either we buy and make it or buy from the third-party wholesaler and get it hallmarked and then sell the jewellery to the customers. Without the hallmarking, they cannot sell on the retail counter.

7.1.12 How will it affect small retailers and customers?

- Small retailers lose their customers. Now BIS and hallmarking have come into the limelight so much that no one will buy any jewellery without seeing the hallmark.
- Problem with gold loans is that the percentage is high; second is if you are buying something from a bank or a private both are two different things.
- Accepting the private option is not easy. They want to bring their customers and educate them regarding this scheme.
- Bank is not allowing jewellers to do that because there are high chances of manipulation in the market.

7.1.13 Threats for Workers:

- People are afraid that if machine-made jewellery machine-made jewellery comes up, artisans will be affected. It is not entirely mechanized at all levels. They do require people at every stage.
- Someone has to look whether things like casting are done correctly or not, heat temperature is adequate, etc. There is no scrap in this industry. Everything is recycled. Jewellers cannot afford to lose even 1 gm of gold while making jewellery.

7.1.14 Training Program – Objectives:

- GJPEC runs some institutes but numbers should be increased.
- There should be a good number of institutes in India, except Kolkata, Jaipur, Delhi, Banaras & Mumbai have few institutes.
- It could be 2+3 years courses like two years for a diploma and three years for a degree.
- Skill India funds can be used for such institutes. Ultimately, things are changing rapidly.
- 3D is one concept that emerged, which is not easy for everyone to understand, but training had been given for that & vendors are part of the setup.

7.1.15 Development of Training Centre at Ankurhati Park:

- A very close setup for artisans will happen close to the park, and these institutes with artisan knowledge will be started.
- A CFC to central a concentricity tools centre for everyone. Everything will be there.

- This is going to be supported by GGEPC because they need one association.
- So that the association will be part of this and again the space will be given at the government office, but the rent has to be paid for this, and the space will be given on rent, because it's a huge building of 42000 sq. ft. area.
- Waiting for the artisans to come and take space there and one artisan must have 10 new people at least in their space available on rent.
- It has been informed to the government that this place is available on rent, and it will be easy for any artisans to take it and train them.
- As per the system from the steel council that 100 Rs. Per day had to be given to the trainers.
- Have given the facility, so the artisans can work independently and supply to jeweller also.
- Same time they are training people and earning their source also.
- Ultimately, no one will work for free, so it's a good idea to give them a good facility there.
- Artisans are required because jewellery making is arduous and takes time to learn. For e.g., Opel, Meena, as it is very difficult to learn. It takes no. of years to get them to learn this art.
- GJEPC- Gem and Jewellery Export Permission Council, will support this tool system for training.
- Central facility tools systems. Where one small set- up will cost them 2-3 crores Rupees, as it includes most of the facilities, and are going to support the artisans as a little open to everyone.
- It is open to entrepreneurs, So artisans are also there. In Domjur, 50000 Artisans are working there 3 km away from Ankurhati park, place called Domjur.
- "Let Learn with us and earn yourself" is the logo they have made.
- Duration of the program - 3 to 6 months but artisans are not happy with this, as artisans require at least a year because theoretical knowledge is not enough.
- They have learned how to set how to make plate, cut the wire and cut. But ultimately, they have to arrange these articles. This is what art is.
- Ultimately government are also looking forward to this. They also want to change the learning system.
- Artisans are happy as they get the salary.
- Because there is a condition that you will get your revenue after the placement only.

7.1.16 Placement Process in Training Centre:

- No restriction, karigars can work anywhere after they learn. They trained themselves and were free to move to Bombay, Kerala, Ahmedabad, Rajkot, Junagarh, anywhere. Even Chhattisgarh and Jharkhand are also coming up very well. People are getting inspired. People from Chhattisgarh have come to see the park.

7.1.17 Pay Structure:

- Both Contractual and salary.

- Get a fixed salary also and some percentage on how much output they give per gram or piece.
- Someone who makes 1000 pieces will get some amount and be paid extra. Performance bonus & Paid Incentives for the work.
- For contractual. The faster you will work, the more you will get.

7.1.18 From where do the workers come?

- Employee reference. Those workers/karigars working somewhere already. No training is required for them. Getting a new person will be a liability to them, so mostly they come through references.
- Hired if interested - For instance, they recently hired someone as a peon. He learned how to refine gold in some months, so they shifted him in a particular department. When he learns to polish, they will shift him to that department and get a new helper to replace him.
- No network, only through the artisans
- Just a month's publicity. There is a problem in Bengal, as they do not allow any union to come.

7.1.19 Labour Code:

- Basically, they are pushing there right now for pollution, fire, safety license, PF, ESI, and certifications.
- This industry is covered under The Factories Act, 1948.
- But in those areas, it is not easy to get all these certificates because the government won't give them.
- Since they are already established in those areas, they cannot ask the entire workforce to come and relocate. So they have to find a middle path.
- Have to study that set up also, as required.
- There are two challenges for this factory set-up. First is legal compliance upto with 20-22 workers is not viable. They need a minimum of 80-100 people to make this kind of setup cost-effective. Secondly, it is the maintenance of that compliance.
- Chances of unionism - Indian trade union act allows every worker to form a union. It is their legal right. Strategically they can manage but technically cannot stop them.

7.1.20 Workforce Management:

- Department-wise supervisors. There are total of five departments.
 1. Model-making, waxing.
 1. Filing.
 2. Polishing.
 3. Setting.
 4. Quality Check.

- Working in this industry is a lazy workforce and it does not work in a factory, but those who work at home that way. At Ankurrathi, artisans are working in a single shift of 8 hours. People come, dance & sing and enjoy as such they find them, they are a member of this club. If one really wants to give them space to work fully transparent relation with them, like feeling and emotions is required.
- The people have become wealthy, earning Rs. 10 lacs in 3-4 years and then they want to start in that little money also. And ultimately, they don't waste their material. They only invest in their art and start their cottage industry.

7.1.21 COVID-19 Scenario:

- On 20th March's evening, association has taken the measures to close the park immediately. 480 people were working in the park. Association already decided in the night itself and made an arrangement for whoever will be staying in the park. 40 people as the security have to stay in the park with all arrangements like canteen (to cook food, bread, tea, dinner & lunch).
- People staying back made their own arrangements like RO was there hence, water was not the problem, food was there and also in advance food was arranged for next two months (salts, pickle and vegetables, grains was available).
- Security and staffs, all were very supportive.
- Though they have stocked Potato and onions in quintals, but it becomes bad after 15-20 days. So, they have arranged around 50 kgs of pickles in packs of 20-20 kgs.
- Ultimately 1st of July they have been told that they can start manufacturing with the limited number of pax. Like the 30% of the total staff.
- At that particular time 480 people were there as artisans and staff were close to 27 people.
- 5-6 managers were also there, and housekeeping was also there. So they have made them available.

7.1.22 Health and safety:

- People were aware that going out of the park and while entering back to the park have to be sanitized properly.
- Besides their faces they use to fog their clothes just to keep them away from the COVID-19.
- Government also asked to support them. Initially, they have given them 2.5 lacs, twice they have given them 15.16 Lacs. to support the local people there, from the chief minister' fund.
- Domjur, a jewellery hub is there very close to them, they arranged masks. So, they give to the artisans and the family and the people whosoever were in the contact with the help of government from the helping prospective.
- Also have an arrangement of medical team at the park itself from July.
- Arranged food. One dietician was also called. They have changed the value of the content, like vitamin "C," lots of lemon, black tea & hot water was very helping to them

was given as per the suggestion through the dietitian. Hot water about 200 bottles was available any time.

7.1.23 Post COVID-19 Scenario like food, facilities, medical, help from the government:

- After 15 days they find that not a single man is COVID-19 affected.
- No one is allowed to touch any metal in the lift even, one type of wooden key was given to them, as they were not supposed to touch the key.
- After one month again had a lady counsellor, just to understand the feeling of the worker.
- They made one logo in the park. “Saying that Papa you are my life, please wear a mask, take care of social distancing” which went very popular.
- Lots of people were coming back to Kolkata for the purpose of job, and all over artisans wanted to come back. So they were open that let the people come and we will give them job.
- They also made a team of jeweller and interviewed them properly whether they know the job or not. Close to 50% of people were not close the sector.
- But there were only 70 people who was supposed to join them back working out of Bengal.
- Though their salary of them was less than in Bengal, So they told them to compensate with the perks rather than incentives.
- They allowed the three meals, people coming to the park as an artisan at least they can have lunch dinner and food as a perk.
- Afterwards they had 827 people working between July to October.
- Not 100% capacity, few spaces were left. Right now, those with 827 people were working as an artisan in the park, but ultimately will be going to raise by 3000 people, because Tanishq is just started.
- Tanishq has taken 21000 square feet and the next day it was announced that they are again going to open 30-35 thousand new stores around India, So that is the second factory of Tanishq. (One is in Hosur, Bangalore, and this is the second factory).
- Even Malabar is also expanding a lot and now SENCO Gold peoples. Gold and diamonds are also expanding because the people already exist and now in the process of expanding. They understand that these amenities are not available anywhere in Bengal.

7.1.24 Facilities to the worker post-COVID-19:

- They have hired 2 buses, to pick them up from their house.
- Because people are staying 20-30- km away from the place, buses are sent twice a day.
- Twice in the morning to pick and drop. Pick up in the morning at 8 o'clock. And the second turn at 10 o'clock and the first drop will start at 6:30 pm and the second at 8:30 pm.
- Because the trains & local trains are closed.

- They have created one pass for the path and have stuck on the car so that nobody can stop.
- Mostly people are from the part of Howrah district, so facilities as been given to them.
- Now the logistic people BBC is also coming there, they go with a lot of jewellery. One shift maybe with a 100 KGS of gold, they want proper security, and the government has given us good access as well.
- MSME is required. MSME is doing very well, so happy that e-system they have put.
- Now the labour law is also coming in a very tight manner.
- After a good discussion with the principal secretary in Bengal. Mr. Anup Aggarwal. He said this is not a theoretical study, that u study gives the exams and through, required is skill practical knowledge.
- To sit in front of the fire is again a challenge. So the young people sitting in front of the fire, they think they need to practice for this.
- Working condition is very shabby.
- Young people are not coming to this trade because they have seen their fathers. The way they have to remove their clothes.
- Sitting on a very small tool, maybe 100 sq., ft.
- More than 20 people are sitting, sweating because jewellery making means you have to sit in the front of the fire.
- The young people have understood that they can't sit down and work. They want a table, chair, good food, healthy atmosphere, and they have to be in a good environment. They want a uniform also. that's why we are making this institute.
- In India close to 60 crores people are not even class 10th pass. So this skill is required as if you really want to grow with your economy, and they see this as an opportunity.

7.1.25 Outlet waste from the factory:

- The park belongs to West Bengal Industrial Development cooperation. (WBIDC).
- They put the scrubbers there. Scrubbers are the fumes coming out of the factories.
- It will dilute itself when it goes to the atmosphere.
- It will be breathable air.
- So it goes to 7 crore rupees to the 4 scrubbers, they are going to put in and the work is already on.

7.2 Skill Development Initiatives by Jewellery Manufacturers: Evidence from Hunarshala, Surat, Gujarat

The concept of Hunarshala is unique; it is adapted by the gold jewellery manufacturers of Rajkot to train their artisans. Here everything related to jewellery is taught like how the jewellery is made people from all over the world come for this. This concept is only found in Rajkot, it has around 12 Hunar Shalas.

Hunarshala is a centre where young artists are trained to design and manufacture jewellery using beads and wires to make beautiful jewelry items like rings, earrings, anklets, bracelets, pendants, necklaces and so much more. Hunarshala is a very traditional practice of training artisans taught for four generations. It can be also termed as exchanging the skill, an existing gold manufacturer trains 10-12 young (fresh) artisan under him with a nominal fee (10,000-50,000 approximately) they are taught everything practically starting from a wire to the final jewellery on how it is made. Families having a legacy in the jewellery industry send their children to get trained in hunarshala and later they join the industry.

The duration of training is up to approximately 8 months where students/trainees come to learn the skill in shifts (morning and afternoon). The time period estimated to learn the skill varies between 2 months to 2 years depending upon the courses offered by different Hunarshalas. There is no formal certificate awarded for the completion of the training, but it is said that the artisan becomes skilled enough to earn his livelihood taking his career forward in the gold jewellery manufacturing industry. Different Hunarshala has learners of various age groups varying from 18 years to even 60-65 years. Each student has their own desk, a small wooden one to sit at. Initially they start learning on copper metal, once their hands get set slowly, they move from to silver and gold; lately a complete cycle is followed. Many of the Hunarshala owners now publish and share about this unique concept of skill sharing even on social media but still, it is not in the eye of many people. The motive here is to bridge the skill gap between the older and existing generation so that the future generation knows it and will be part of it.

Rajkot manufacturer working on encouraging the setup of Hunarshala's expects to acknowledge from the government, that they are working with the belief to improvise the infrastructure, get support, and construct a proper skill development place to teach the staff so it can be applied nationally, and students are benefited too. The suggestion in the council and to the government is made for adding Hunarshala in AVPT (Shree Amrutlal Veerpal Parekh Technical Institute) or some technical course to make it government certified. This new model for skill development needs to be institutionalized and can this be formalized and recommended on a larger basis even to the gold council through IGPC.

7.3 Newer form of the workplace: Jewellery Manufacturing Start-ups

Looking up to the traditional art of gold jewellery manufacturing, a new era of machine-made, studded jewellery, and imitation jewellery is coming into the market with high demand. New startups are proposed to exercise the manufacturing practices encouraging and introducing the craftsman and handicraft jewellery in the Indian market with wholesome new level high standards and satisfying the basic requirement of an artisan. Youth are mostly into imitation jewelry and in any case, they go for gold. The preference is mostly small, classy designs for themselves also some nobody goes for extremely heritage stuff. One of the advantages of imitation jewellery is it can be worn all the time for no particular reason. The owner here doesn't directly deal with the artisan, they have a middleman (can also be called Babu's) who is the medium to communicate between them. They believe in a healthy work environment, considering the health of artisans and ensuring their minimum wages for their critical work, though they are aware about the manufacturing process as they are dealing with metals and other chemicals that can cause damage to them, but they also make sure it is to a limited extent. This kind of set up doesn't bind artisan into any contract they believe them to work as per their own will and, they give full freedom to create design of their own choice as they are more abide to the culture only certain suggestions are given by the clients or by the owner.

This newer way of jewellery manufacturing is responsible, and alert and they don't work or involve with the babu's money making mindset. The new set up doesn't focus only on hard sale but are interested in bringing and spreading the jewellery culture, visioning their design speaking for themselves about its origin and the customers respect the hard work involved while making the jewellery. They get proper reports from the babu's about the work and artisans as well. They don't get involved fully but are partially aware about the labour practices in the industry and they make sure they get their artisans paid by the end of the day.

Chapter 8: Implications of the Study

8.1 Implications for making ‘Future of Work’ effective in the gold jewellery manufacturing industry.

Our findings have major implications for the future of work that relates to the growing demand for various non-traditional work relationship such as freelancing (working for multiple employers), gig work (no formal employment) and platform work (employees are connected through algorithm i.e., mobile based application) and others. Gold jewellery manufacturers across formal, semi-formal and informal have relied heavily on various non-traditional employment arrangements such as outsourcing and subcontracting manufacturing work to freelance head karigars, commonly known as babus who further assign the work to his karigars working in his workshop. Additionally, few skilled karigars act as aggregators and arranges work for freelance karigars so, they primarily act as an intermediary between the karigar and the principal employer/manufacturer (see Figure 8.1).

We have developed a framework categorizing the employment into four categories viz., full- time/fixed term/contractual employment, karigar park employment, subcontracting and outsourcing of work based on two parameters place of work and type of work relationship between karigar and primary employer/manufacturer. We have shaded the quadrant II to IV as it reflects the possibility of gig work from low to high. Gig worker has been defined in the code on social security 2020 (section 2(35)) of Govt. of India as ‘a person who performs work or participates in a work arrangement and earns from such activities outside of a traditional employer-employee relationship. Karigars in quadrants II to III (Figure 8.1) are into non-traditional employment where the employer-employee relationship is not direct. The only difference between gold jewellery manufacturing sector and other sectors that employs gig workers using online platform to establish the work relationship. In gold jewellery manufacturing sector, all type of employment work arrangement is purely based on trust and social capital (referral, social network, reputation etc.) is important to get and execute the work assignment.

We operationalized gig work in gold jewellery manufacturing as ‘karigars connected directly or indirectly with the principal manufacturer through non-traditional work relationships where karigars are free to work for multiple employers/manufacturers. If employment relationship between karigar and manufacturer does not bind the karigar in accepting work from multiple manufacturers at the same time, then the employment relationship is non-traditional and has scope of gig work. In figure 8.1, we have highlighted as we move from quadrant I to IV in clockwise direction depending on work relationship between karigar and employer scope of gig work increases. Also, we have mentioned the quality of labour conditions across four quadrants. As the scope of gig work increases responsibilities of maintaining the quality labour condition shifting from principal manufacturer or employer to intermediary or head karigars. We can see quality of labour conditions decreases as we move from quadrant I to IV. This study highlights very interesting context, one end gig work cannot be avoided and other end we emphasize if it increases labour conditions may deteriorates. In

this sector, outsourcing, subcontracting employment type mentioned in figure 8.1 can not be avoided as most of the big formal firms too heavily offer this type of work arrangement. We have suggested ways to improve the labour conditions across the work-relationships mentioned in figure 8.1. In next section we have explained the four types of employment in detail.

Quadrant I-full time/contractual/fixed term employment (Zero possibilities of gig work)

This is the formal traditional employment relationship that exist between karigar and employer/manufacturer. It includes employment variants like full time, fixed term, and contractual employment where karigars are directly connected with employer/manufacturer and work from manufacturers' facility. Labour conditions are extremely good as firms offering these kinds of employment design the employment conditions as per the provision of existing labour laws of the land. Karigars are not allowed to accept employment or any parallel assignment from another employer during employment with existing employer, hence, chances of gig work in this traditional employment relationship is zero. Unfortunately, size of traditional employment mentioned under quadrant I is shrinking, and manufacturers are more interested into exploring non-traditional work relationship like subcontracting, outsourcing and others, hence, opening avenues for possibilities of gig work in gold jewellery manufacturing sector in India.

Quadrant II-employment through vendors/karigar parks/centres (low to zero possibilities of gig work)

This is the semi-formal traditional employment relationship that exist between karigar and intermediary employer/manufacturer. It includes employment variants like employment with vendors (captive and non-captive), employment with small or semi formal manufacturers working for one or more large formal firms. It may be full time, fixed term, and contractual employment where karigars are indirectly connected with principal employer/manufacturer and work directly for vendors /intermediary manufacturer either from vendors or intermediary manufacturer' facility or common facilities like karigar park/ centre.

In this employment depending upon the manufacturers' values, and his labour philosophy employment conditions are decided. Some small and semi formal manufacturing firm don't fall under ambit of labour laws of the land however, they still create safe and quality work conditions for their karigars. In other cases, vendor of reputed principal manufacturer tries to maintain the quality labour processes and offer quality employment condition to karigars. Manufacturing firms having facility located in shared facilities like karigar park or karigar centre (e.g., Ankurhati in West Bengal) have extra pressure from the founding authorities to provide quality labour conditions. Hence, in this quadrant though karigars are not directly employed with principal manufacturer but still they receive better employment condition.

Karigars are not allowed to accept employment or any parallel assignment from another employer during employment with existing employer, hence, chances of gig work in this traditional employment relationship is zero. However, few intermediary manufacturer or vendors outsource some part of the work to head karigars or skilled aggregators in market who

in turn allocate the work to their karigars working from their own place. These karigars and not directly connected with intermediary or vendor rather they work for aggregator or head karigar (babu) who is directly connected with concerned vendor or intermediary manufacturer. This variant of employment offers some scope for gig work for karigars as they can accept assignment from multiple head karigars or employer. Hence, in this quadrant there are zero to low possibilities of gig work.

Quadrant III-employment through subcontracting of work

This is the informal non- traditional employment relationship that exist between karigar and head karigar/skilled karigar aggregator (who brings business). It is typical subcontracting or serial subcontracting work. Karigars are connected only to head karigar (popularly known as ‘Babu’) or skilled aggregator who bring work from one or multiple principal firms, intermediary manufacturing firms or vendors. This form of employment is informal and flexible. Neither head karigar nor karigar is obliged to work exclusively for one manufacturer. Karigars are not obliged to just work for one aggregator or head karigar, they too can work for multiple head karigars along with taking some independent assignments from market (small retailers/own manufacturing). This employment arrangement offers moderate to high scope of gig work as karigars are not formally tied with any fixed employer. Social relationship between karigar and head karigars sometimes tie them with that head karigar otherwise there is no such formal binding employment contract between them. In case, head karigar is providing space to work and there is no dearth of work then in that case karigars do not prefer to accept assignment from other employers (head karigars/clients).

Working space and work is provided by head karigars or skilled aggregators so cost consideration hugely affect the working conditions. Head karigar is solely responsible for managing labour processes and he decides labour conditions (salary, hiring, working conditions, hygiene) based on availability of work and profit margins. Most of the karigars are not aware of their rights and do not mind work in poor conditions. There is multiple chain of employers, but direct employer is head karigar who manages the labour.

Unfortunately, size of this type of subcontracting and serial subcontracting growing gold jewellery manufacturing sector in India. This quadrant III reflects the future of work in the sector. Therefore, large firms, jewellery associations, and karigar associations need to investigate labour issues and working conditions in this type of work arrangement. In coming years labour might be aggregated through mobile applications like OLA and UBER workers. Therefore, gold jewellery manufacturing industry needs to organize the karigars using technology to fill the shortage of karigars. Most of the employment comes from Quadrant III and IV, therefore, this sector needs to improve the labour conditions through responsible and sustainable outsourcing/subcontracting of work. Social security code 2020 does emphasize on creation of welfare funds for gig workers in India to extend social security. On similar lines, gold jewellery manufacturers may come up with labour welfare schemes to extend sustainable livelihood and quality employment to karigars. Interestingly quadrant III and IV forms large chunk of employment and more preciously it also acts as talent pool of karigars for large formal firms. Fresh karigars start their career from quadrant III and IV (for detail see karigar life cycle

framework) and move to quadrant I and II for better employment conditions. In future, quadrant III and IV going to be the strategic chunks of karigars so firms need to plan to extend quality employment to these two sets of karigars. Possibility of gig work in this quadrant is moderate to high as karigars are allowed to work for multiple head karigars and intermediary manufacturing firms (except if intermediary firm has formal contract with head karigar then karigars can't work for multiple manufacturers).

Quadrant IV-employment through outsourcing of work

This is the informal non- traditional employment relationship that exist between head karigar or karigars and principal manufacturer. This form of employment is informal and extremely flexible. Principal manufacturer (may be the large firm) directly connect with head karigar or karigars and outsource the work. Neither head karigar nor karigar is obliged to work exclusively for one manufacturer. Karigars are not obliged to just work for one head karigar or principal manufacturer, they can work for multiple manufacturers. This employment arrangement high scope of gig work as karigars are not formally tied with any fixed employer. Social relationship between karigar and head karigars sometimes tie them with that head karigar otherwise there is no such formal binding employment contract between them. Karigars either work from their home or head karigars' place. Principal manufacturer has got nothing to do with the working condition of karigars they are only interested in getting outsource work done.

Head karigar or karigar himself is responsible for managing labour processes and they voluntarily choose labour conditions (salary, hiring, working conditions, hygiene) based on availability of work and profit margins. Most of the karigars are not aware of their rights and do not mind working in poor conditions.

Unfortunately, size of this type of outsourcing is growing in gold jewellery manufacturing sector in India. This quadrant IV reflects the future of work in the sector. Therefore, large firms, jewellery associations, and karigar associations need to investigate labour issues and working conditions in this type of work arrangement. Karigars are sometimes not aware of the various dangerous chemicals used for manufacturing of gold jewellery. In long run it affects their health conditions. Declining health conditions and early retirement (after age of 40-45 years) of karigars would reduce the available karigar pool for the manufacturing firms therefore, manufacturing associations needs to think about the improving the labour processes of outsourced work. Manufacturing firms should not simply avoid the working conditions of quadrant IV karigars. Many big manufacturing firms ensure the quality of employment condition even for outsourced karigars.

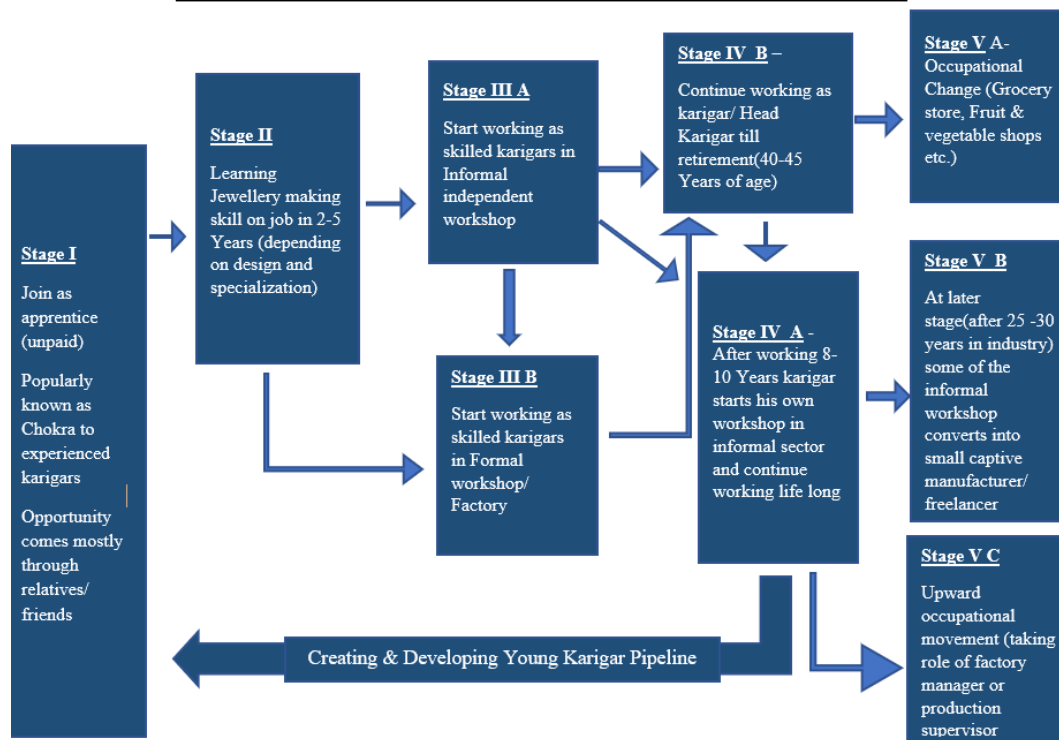
Figure 8.1: Categorization of Employment in Gold Jewellery Manufacturing Sector



8.2: Implications for managing karigars across formal, semi-formal and informal: A five-stage karigars' career development framework (KCDF)

Based on the findings of the study five stages karigars' career development framework (KCDF) has been proposed (see figure 8.2) that includes the various phases of the karigars' career stages such as stage- I & II (*Initial skill development of karigars in industry*), stage III - A & B (*Initial career choices of karigars-formal vs informal sector*), Stage IV- A & B (*Skill maturity and career advancement*) and stage V- A, B & C (*Retirement and post-retirement career choices*). We have found the co-existence of formal and informal sector with regards to development and deployment of karigars in gold jewellery manufacturing industry. There is no segregation of formal and informal sector and interestingly initial development of karigars happens primarily in informal sector. Most of the formal sector hires initially developed karigars from informal or semi-formal sector. Karigars' career development framework indicates its choice of the karigars' to either continue with informal sector (where they joined initially through relatives/friends) or shift to formal sector (Stage III A & B). Our findings suggested the career choice of the karigars' are greatly influenced by head karigar or karigar who trained him or introduced him to jewellery making industry.

Figure 1: Karigar life cycle in Informal Gold Jewellery Manufacturing Sector



Metaphorically, karigars work in a group under one head karigar like project-based industry (Information technology (IT) and business consulting) where project team is recruited, developed, and deployed by project head/consultant. Head/experienced karigars are solely responsible for bringing fresh karigars through informal/social network and they take interest in developing the newly joined karigars. Head karigars strategically develop the karigars anticipating the work assignments from semi-formal and formal gold jewellery manufacturers. The formal sector heavily depends on informal karigar hence, there is an ample amount of work

and employment options for skilled karigars that gives employment continuity to karigars in this sector.

Our study suggests formal sector or jewellery associations needs to diversify the risk of karigars' sourcing from informal sector. Formal firms may invest in karigars' development so that long term requirement of skilled karigars in gold manufacturing sector can be filled. Future study may investigate various skills required in this sector along with exploring various effective mechanisms of skill development in gold jewellery manufacturing sector.

8.3 Implications for promoting 'Decent Work' in gold jewellery manufacturing sector.

Decent work framework is important to understand the labour condition in this industry and it emphasises on following six dimensions of employment to promote the 'Decent Work' in any industry:

1. Opportunities for work for both men and women-
2. Working conditions of freedom- freedom from bounded labour & child labour, freedom to joint works associations.
3. Productive work- It means work providing sustainable livelihood to the worker and their families, so it is not just providing the employment opportunity to employees whether it is providing sustainable livelihood or not.
4. Equity in work
5. Social security protection- related to financial security in terms of illness unemployment, or any contingencies.
6. Dignity at work- related to treatment got at workplace & work allocation, is there is any kind of discrimination happening to them.

Decent work refers to various type of security provided to employees such as employment security, work security, representation security, income security, skills reproduction security, and fair treatment in job security. We have employed the decent work framework to analyse the quality of employment in gold jewellery framework. Our findings suggest (**see figure 8.3**) that some of the dimensions like continuity of work, and productive employment (salary levels) are provided to the karigars across formal, semi-formal and informal sector. However, there are various deviations in from decent work framework in informal sector such as longer working conditions, lack of dignity at work (lack of fair treatment by head karigars), absence of social security and safe work environment. Most of the karigars work in very unhygienic and unsafe (lack of basic amenities and space) workplace especially in informal sector.

8.3: Analysis of employment conditions in informal sector: A decent work perspective

Sr. No	Dimensions of 'Decent Work'	Insights from Informal sector	Alignment or Deviation- Decent work dimensions
1	Employment opportunities	The formal sector heavily depends on informal karigar so there is an ample amount of work and employment continuity in informal sector	Alignment
2	Adequate earnings and productive work	Earnings across formal, semi formal, and informal sector is as per minimum wages declared by state government in India	Alignment
3	Working hours	On an average karigar works around 14 to 16 hrs during peak season and absence of structured work environment in informal sector.	Deviation
4	Balancing work, family, and personal life	Work-life boundaries are blurred, and in many cases the families are staying away in villages (majority) and karigars reside alone at the workshop with fellow karigars.	Deviation
5	Stability and security of work;	As gold jewellery industry is seasonal so during its peak season there is employment continuity but no security of work due no structured employment in informal sector.	Deviation
6	Equal opportunity and treatment in employment;	The informal sector is dominated by male karigars no females were found working in the workshop. One of the reasons we found knowledge owned by a male is transferred to male karigars only due to Indian patriarchal society that gives earning responsibility to the male members of the society.	Deviation
7	Safe work environment;	We found 4-5 or more karigars working in a small room (10*12 square feet) in informal sector. They eat and sleep at workplace	Deviation

		surrounded by various acids and manufacturing equipment.	
8	Social security	No social security such as provident fund, gratuity and medical insurance or any financial security.	Deviation
9	Social dialogue, employers', and workers' representation.	Karigar associations are present but not recognized and effective in terms of bargaining power. There is no channel that may integrate fragmented informal workshop karigars for negotiating better wage rate and employment conditions in the informal sector.	Deviation

Future studies may investigate reasons for another deviation that is inclusion of women at workplace. We found as major work happens in informal sector so chances of providing safe and inclusive workplace for women karigar is rare and difficult. However, we found formal sector have started hiring women karigars for various gold jewellery manufacturing processes. Future study may explore the manufacturing processes where women karigars can contribute and development of jewellery making competency framework will be helpful.

Chapter 09: Way Forward and Conclusion

9.1: Way Forward and directions for future studies in the gold jewellery manufacturing sector

Our study primarily focused on labour conditions, practices (HR practices) for managing the labour (karigars) in formal, semi formal, and informal sectors in gold jewellery manufacturing in India. We have proposed karigars' career development framework (see figure 8.2) and employment categorization framework (see figure 8.1) and analysis of employment conditions using a decent work framework (see figure 8.3). Further, our study suggests the following research areas to be explored in future studies:

- 1. Karigars' skill development framework-** Future studies may explore the skill development framework mapping various gold jewellery making skills (design wise, proficiency level, design complexity) with developmental mechanisms (on job development vs in class or experiential learning). In this study, we found it takes quite long (e.g., 3 to 7 years) for fresh karigars to become skilled karigar, so mapping jewellery making skills with a developmental approach would help the industry in proactive manpower planning to meet the talent crunch. Regional manufacturers have taken few private skill development initiatives (such as Hunarshala in Rajkot); however, more structured skill development programme is required in this industry.
- 2. Impact of technology on skill requirement-** In the coming years, technology may play a critical role in jewellery manufacturing and designing. Future studies may explore the impact of technology on jewellery making skills. Based on anecdotal evidence, we assume some technological interventions would enhance the skills of karigars, whereas some of these interventions would make certain skill sets redundant.
- 3. Development of karigar database-** Formal sectors and jewellery manufacturing associations and industry bodies need to develop the concept of karigar skill development institutes across manufacturing clusters in India. Skilled retired karigars can be trainers for the next generation of karigars. Data base of skilled karigars needs to be developed using mobile based applications that would help the industry utilize the existing karigar base effectively and efficiently.
- 4. Professionalization of artisans' work-** One of the biggest challenges that the gold jewellery manufacturing industry has faced is acquiring the next generation karigars across formal, semi-formal and informal sectors. Education level has been improving in the country alongside the arrival of the next talent pool, which is 'Generation Z', who has been born with an entrepreneurial mindset having an abundance of opportunities to start their own ventures and seem a little less interested in structured employment. Future studies may investigate the various methods of making gold jewellery manufacturing jobs lucrative and a source of sustainable employment. Some diamond cut and polish firms provide entrepreneurial options (resources and other support to start an enterprise) to their karigars who work independently for the parent firm. That can be another work model to attract the generation Z. Also, it would be interesting to explore the intergenerational jewellery making skills transfer among karigars.

- 5. Effectiveness of karigars' park-** Future studies may investigate working conditions on employee's attraction and retention. Few karigars parks (e.g., Ankurhati in Kolkata) have been developed where karigars have been given hygienic work conditions and productive employment conditions. These karigars' parks provide various formal skill development opportunities to the young karigars and good working conditions. In coming years, development of such karigars' parks may also resolve the problem of young karigars' acquisition and retention. Detailed study can be conducted to understand the effectiveness of these karigar parks.
- 6. Implementation of labour codes-** It would be interesting to explore the impact of labour codes (industrial relations code, occupational health & safety code, social security code, wage code) that aim to apply to all sector workers including informal karigars unlike its previous version of labour laws. We have found the deviation of decent work framework in informal sector is high on various parameters like working conditions, working hours, and especially social security. These codes would bring some alignment between labour practices in informal sector and dimensions of 'decent work'. Anecdotal evidence suggests such associations need to negotiate better wages and employment conditions in this labor-intensive industry.

9.2: Conclusion

In this study, we captured insights regarding labour conditions, labour practices and challenges from formal, semi-formal and informal sector, gold jewellery manufacturing firms across the country. Unfortunately, major theme that emerged in the study is “SMILING CUSTOMERS- CRYING KARIGARS”. Findings mirrored various existing paradoxes in labour practices followed in formal, semi-formal and informal sector. For example, one end industry has been witnessing karigars’ crunch and despite that karigars earning levels are not growing significantly. Ideally labour crunch leads to higher wages. Most manufacturing firms across formal, semi-formal and informal follow majorly ‘pay for performance/variable pay (gold dust-based wages) except few large formal and semi-formal firms. Informal workshops have been widely found to follow gold dust linked wage plans. Interestingly gold prices are increasing but not wages. One of the reasons for that is gold wastage rate (reduced) is adjusted as per upward fluctuations in gold prices. Informal sector karigars do not move from their seat and are forced to work longer hours to collect more gold dust in anticipation of more earning, which never happens. We have metaphorically termed this behaviour of karigars working longer (*chasing illusionary targets*) as ‘CHASING GOLDEN DEER’.

Study highlighted another paradox in labour practices related to the skill development of karigars. For example, the industry success primarily function of karigars’ skill. However, industry has been struggling to find out the skilled karigars. Large formal firms are either acquiring trained karigars from informal sector or outsourcing a large percentage of their manufacturing to informal sector. Few karigars’ parks and private skill development initiatives like Hunarshala and others are positive attempts to bridge the skill gap in the sector. Given the growth opportunities and rising demand of Indian gold jewellery across the globe, industry must attempt more sustainable solutions to fill the gap of skilled karigars. We have developed the framework (**refer figure 8.1**) indicating movement of karigars and work across formal, semi-formal and informal sector along with working conditions and skill development opportunities. This framework suggests the co-existence of formal, semi-formal and informal sector that reflects each formal and semi-formal dependence on informal sector for fulfilling skilled karigars’ requirements.

Finally, gold jewellery manufacturing sector requires sustainable efforts to attract young karigars. We have proposed the five stage karigars’ career development framework that can guide the development of various policies to attract the young generation karigars. Current, scenario of employment conditions in informal sector is not encouraging from the perspective of ‘decent work’ framework proposed by international labour organization (ILO). Earning levels of formal and informal sector karigars are not significantly different. Only difference between both the sector is working conditions. Despite the poor working conditions offered by informal sector, new karigars prefer to work for informal sector as they get similar income, more work flexibility and social bonding.

As gold jewellery manufacturing primarily had been cottage industry that consists of large number of small workshops of karigars along with few large manufactures so informal employment naturally embedded in this sector. Only solution for healthy co-existence of formal

and informal sector would be productive and sustainable employment conditions in informal sector. Formalization of whole informal sector is impossible given the size and nature of informal sector however, 'Responsible Outsourcing of work' can be the sustainable solution and way forward. Few large formal firms while outsourcing the work to semi-formal and informal sector ensure productive employment conditions for karigars (safety, benefits, minimum wages etc.). In other words, more prominent manufacturers need to invest more in developing decent work for informal karigars through responsible outsourcing of work.

Annexures

Field Visit Pictures

The Gold team at various location for the data collection.





Informal Sector karigar's workshops





Formal sector workplace



Ankurhati









Hunarshala



Questionnaire for jewellery manufacturer

DEMOGRAPHICS			
i.	Name of the Company		
ii.	Type of Company (Public Ltd./Partnership/Family business)		
iii.	Year of establishment		
iv.	Registered/ Non-registered. If yes, date of the registration of the company? (Public ltd, Private, Partnership, Sole proprietorship)		
v.	Location/s (Name of the unit)		
vi.	Retail/manufacturing/export (forward and backward integration). If into retail, owner/rented property?		
vii.	Details of owner and respondents	Owner	Respondent
	Name		
	Age		
	Gender		
	Educational Qualification		
viii.	Number of family members involved in business		
ix.	Total experience in the gold jewellery industry (in years)		
x.	Annual Growth rate (last five years)		
xi.	What is your Annual install capacity and average utilisation? (Annual demand potential)		
xii.	Annual turnover of the company		
xiii.	Business model (Outright/Outwork)		
xiv.	Area of specialization in jewellery		
xv.	Percentage share of domestic market /export		
xvi.	Any certification		

	(RJC, Environment related, Child Labour, Quality of Jewellery, etc.)									
xvii.	Number of employees	Permanent			Temporary			Contractual		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
	<i>Managers & Supervisors</i>									
	<i>Office staff/Support staff</i>									
	<i>Trainees</i>									
	<i>Babus/Head Karigars</i>									
	Grand total									

I.INDUSTRY AND FIRM ANALYSIS

Sl. No.	Questions	Views of the respondent	Factual/Observation (by the interviewer)
A. Motivation to join the industry			
1.	Why did you join this industry? What triggered you to join the business?		
2.	Who helped/facilitated you to establish the business?		
B.			
3.	Which community do the owners belong to? Is any special community inclined more towards this business? Please tell us few other communities existing in this industry and their specialization?		
4.	What are the strengths of this industry?		

5.	Can you tell us about the challenges in the industry? (labour, procurement of gold, policies, consumption pattern, handmade & manual)		
C.			
6.	What is the strength/advantage of your firm?		
7.	Who are your major competitors?		
8.	What are the threats to your company? Also, what are the threats for the industry in specific?		
9.	How does the international market influence your business?		
10.	How do you connect with all other jewellers? How are all formal, informal, and semi-formal jewellers connected?		

II. Supply Chain of Jewellery Manufacturing			
SI. No.	Questions	Views of the respondent	Factual/Observation (by the interviewer)
A. Demand Estimation and Planning			
11.	Are you into handmade or machine-made or both? What is your product portfolio? (Plain, studded, silver, only gold, others)		
12.	What is the consumption pattern of each design? How are the new designs incorporated?		
13.	What are the changes in the preference/ tastes of customers? Are they shifting towards diamond/platinum?		
B. Management Practices			
<i>B1. Cost and Profit Structure</i>			
14.	Which type of jewellery incurs more cost in producing, handmade or machine-made?		
15.	What is your average profit margin? Making charges, hallmark charges, penalty for selling sub-standard quality gold?		
16.	What is the labour cost? How much do you spend in total on labours/Karigars?		
17.	Do you follow any of the management practices in your organization? (Balance scorecard, Total productivity management, Quality improvement system)		

B2. Technology			
18.	What are the latest technological developments in jewellery manufacturing? What is the degree of technological infusion in your business?		
19.	Which technological platform do you commonly use? In which areas did you make use of technology? (in designing, communication, recreational activities for workers, and any other)		
20.	What is the design of the Production process? (Individual, Regular assembly line with division of labour, workgroup or special group)		
21.	Is there a need of more qualified workers after technology advancement in this industry? Have you upgraded/trained your workers according to the latest technology?		
22.	What sort of manufacturing do you do? (Gold, Gold & Silver, Studded, Gold & Diamond)		
23.	What is your organizational structure? Do you have a management system/supervisors/babus/ Karigars?		
24.	Do you have professionally qualified people in your management?		
25.	What is the minimum qualification you look for before hiring a manager/supervisor?		
26.	Do you assign designations to Karigars?		
C.			
27.	What is the overall supply chain in the procurement of gold? Also tell us more about price, quality, logistics, monitoring, trace, risk.		
D.			

28.	Can you tell us about the process of jewellery making? Elaborate in detail about the processes involved and the value chain of gold jewellery (quality, storage, theft)?		
29.	Which are the areas in jewellery- making process that requires a high level of skill? Also, which area requires more physical effort and which needs least effort to be made?		
E.			
30.	How do you manage scrap?		
31.	Is there any theft of waste?		
32.	What are the loss prevention measures taken by your company? What do you do with the wastage?		
33.	How do you adhere to environmental compliances? (Like Zero discharge facility, High level of recycling) What norms do you follow?		

II. Labour Conditions and Practices

II.1. Work Relationship/Social Profile of Babu/Karigars

SI. No.	Questions	Views of the respondent	Factual/Observation (by the interviewer)
34.	How is your work relationship with Babu/Karigar/ Supervisor/ Head Karigar? (Assignment of work, monitoring the performance and helping or giving instruction)		
35.	Which caste/community do your Karigars belong to? Is the specialization of karigar based on caste or location?		
36.	Do you hire local employees? What is the percentage? For what role?		

II.2. Labour Disputes & Grievances

37.	Are there disputes between Karigars and Babus? How do you handle disputes/conflicts?		
38.	Is there any formal or informal mechanism to handle karigar/babu grievances related to work and payment?		
39.	Do you help them in handling their personal disputes as well?		
40.	Do labour inspectors visit the factory? What do they look for?		
41.	What are the Pros and Cons of Labour inspection?		
42.	Do you have a POSH committee for workers? Any other statutory committees?		
II.3. Physical Work Environment			
A. Work Conditions			
43.	Does your organisation provide the following amenities to the workers/Karigars?		
i.	<i>Sitting arrangement of worker (table and chairs/on floor) (Which work is likely to be done on the floor and which on the table chair)</i>		
ii.	<i>Lights and AC/fan</i>		
iii.	<i>Use of microscope/magnifying glasses</i>		
iv.	<i>Fume evacuation apparatus/ Exhaust</i>		
v.	<i>Washroom and Retiring room</i>		
vi.	<i>Recreation rooms and Sports rooms</i>		
vii.	<i>Changing room/ lockers</i>		
viii.	<i>Accommodation and Transport for workers</i>		
ix.	<i>Separate room/waiting room for female Karigars/ Employees</i>		
x.	<i>And Others</i>		
B. Hazardous Substance			

44.	Have you identified hazardous substances and processes and trained about their safe use and handling to the workers/Karigars?			
45.	Do you have written policies and procedures for handling hazardous substances?			
46.	Have you informed workers/Karigars regarding proper waste disposal (chemical and hazardous waste)? Do you have a standard guideline for waste disposal?			
II.4. Manpower Planning/ Recruitment				
47.	How do you decide on the number of employees you require? What is your manpower planning process? How do you handle seasonal manpower planning?			
48.	At what level and how do you recruit Karigars and Babus?			
	Type	<i>Apprentice/ Trainees/ Experience Retried Employees/Others</i>		
	Mode of recruitment	<i>Referrals/ Campus Interviews/ Employment Exchanges/ Through Babus/Web</i>		
49.	Do you have a formal job description?			
50.	Do you provide them formal appointment letter? In which language?			
51.	What is the duration of contract? Permanent, Half yearly, or quarterly?			
52.	Do you ask for any certificates as security deposit etc. from your employees?			

53.	Do you do background verification for Babu/Karigar? What is the process?		
54.	What are the challenges in the recruitment of Babu/Karigar/ Head supervisor?		
55.	What attracts young workers/karigars to join this industry?		
56.	Do you hire any specific sub-groups?		
57.	Is there any probation period? If yes, what is the duration? Is the probation period for the Karigars and other employees are same?		
II.5. Performance Monitoring and Feedback			
58.	How are work targets set for karigars/Babu? How is the performance measured? Is there a formal system of performance measurement?		
59.	Do you give and collect feedback from your workers/employees for work- related issues?		
60.	If they still make mistakes after your feedback, how do you respond?		
61.	Do you have a system of collecting inputs (Process improvement, Quality improvement) from employees, formally or informally?		
62.	What is your approach towards performance management, Individual or Team? Give Details.		
63.	The data from performance monitoring is used for what purpose? (Compensation, Training, Promotion, Termination, Development etc.)		
64.	What do you do to motivate workers in general?		
II.6. Compensation and Benefits			
65.	Do you have a formal compensation policy system? (Pay Grades/Pay Scales etc.)		

66.	What are the pay components? (Fixed pay/variable/ratio of fixed and variable). Do you provide anything in kind?		
67.	What is the frequency of salary payment and mode of payment? (cash/Bank transfer/through Babu, any other)		
68.	Do you provide them with salary slips? (Ask for a blank Salary slip or copy of the appointment order, or benefit document)		
69.	Do you use any specific software for administering salary & compensation?		
70.	Is there an incentive system? What are the details? On what basis do you decide incentives for Karigars/Babus?		
71.	Do you pay them an annual bonus? What is the rate (percentage of salary) of bonus?		
72.	How do you compensate Karigars/Babu during peak or lean time?		
73.	Do you pay for overtime? If yes, what is the rate of overtime payment? What frequency of overtime in a year		
74.	Do you ensure minimum wages to all workers/babu/Karigars?		
75.	Do you provide medical insurance/ medical reimbursement?		
76.	Do you also provide maternity leave?		
77.	Do you have a written policy against child labour?		
78.	What all social security benefits do you provide workers/Karigars/babu? (PF, ESI, gratuity, pension plan, welfare fund)		

79.	Do you provide incentives for further education/education loans/housing loans/healthcare benefits to the Karigars/babus?		
80.	Do you have any benefits or schemes for families & dependents of employees?		
81.	Do you facilitate the workers in getting any certification from Skill India and other places?		
82.	Do you provide a canteen facility/ subsidized food to your workers/Karigars?		
83.	Do you provide uniforms to your karigars/babus? Any specific features of the uniform? (Type, Materials, Design, Purpose of uniform) Do you provide uniform allowance?		
84.	Do you help in rehabilitation if they get addicted to any bad habit like pan/gutka/tobacco/cigarettes?		
85.	Any other discretionary benefits? Do you provide them with any retirement benefits & any other benefits under which karigars and Babu's are registered?		
86.	What government schemes are under which your Karigars/Babus are registered? (Pradhan Mantri Jan- Dhan Yojana, Ayushman Bharat Yojana, Government retirement plans, Atal Pension Yojana, others)		
II.7. Employment Contract and Conditions			
<i>A. Employment terms and conditions</i>			
87.	What is the attrition rate in your company?		
88.	What is the process of termination of the employment contract? (With notice/without notice) What is the duration of the notice period?		

89.	Any specific charges which you consider for termination?		
90.	Do you have a code of conduct for workers? (Language, conduct, ethics, behavior for fellow colleagues) (Formalization department.)		
B. Working Hours/Leaves			
91.	No. of working days in a week		
92.	Working hours per day and per week		
93.	No. of breaks in a day (duration of the break)		
94.	Types of leaves and Holidays:		
	<i>i. Number of holidays</i>		
	<i>ii. Sick Leave</i>		
	<i>iii. Earned Leave/ Annual Leave with pay</i>		
	<i>iv. Festival Leave</i>		
	<i>v. Any other leave or break</i>		
C. Health and Safety Norms			
95.	Do you have in-house dispensary or health centre (With or without a doctor)?		
96.	Do you have any incidents of accident or health hazards? Has there been any incident of accident or health hazards in the recent past?		
97.	Do you comply with the following health and safety norms mentioned in RJC guidelines?		
	<i>i. Equipment, tools and machinery in a safe condition</i>		
	<i>ii. Secure facilities for storing chemicals used in the workplace</i>		
	<i>iii. Safe and hygienic facilities, including toilets, eating areas and first aid</i>		
	<i>iv. Safety information, training and supervision</i>		

	<i>v. Fire safety equipment and alarms</i>		
	<i>vi. Regular health check-ups</i>		
	<i>vii. Childcare and nursing facilities in accordance with applicable law</i>		
D. HR and Labour Audit			
98.	What is the frequency of statutory labour audits and internal labour audits/inspections?		
99.	Do you conduct internal HR audits? What is the frequency of HR audits?		
100.	Have you received any notices from the labour department in the last 2-3 years? How do you deal with it?		
101.	Have any of your customers conducted audits which involve labour/HR issues?		
II.8. Promotion and Careers			
102.	What promotion criteria do you use for Karigars/babu in your company? Do you encourage Karigars to become Babu/Supervisor/Managers?		
103.	What training programs do you conduct for your workers? Do you provide them opportunities to learn cross- skill?		
104.	Do you encourage employees to become entrepreneurs?		
A. Training and skill development			
105.	Is there any formal training department which organizes regular training programs?		
106.	Do you expose the Karigars to latest technology for making jewellery/skill enhancement? Or give them training (in-house, mentoring) to upgrade their skills?		

107.	How do you train new joinees? Is there any induction program for them?		
108.	Do you send karigars to get trained by outside agencies/trainers?		
109.	What training do you give to managers and supervisors?		
110.	Is there customer-oriented training for karigars?		
111.	How Babu trains their Karigars?		
II.9. Trade Union and Associations			
112.	What are the various trade union & karigar associations existing in this industry/locality?		
113.	Do you encourage your workers to be part of such associations?		
114.	How do you handle any issues regarding labour/karigars associations or trade union?		
115.	What is your policy approach to handling worker's grievances?		
116.	Do you have formal grievances systems?		
117.	Are you part of any jewellery/manufacturers' association? What benefits do you get from such associations? How does it help you in your business?		
II.10. Risk Management, Security and Loss Reduction Practices			
118.	What are the various risk management/Security & loss reduction practices adopted by you? How do you keep watch over the workers? (Security guards, Access gates)		
119.	Any recent case of theft/malpractice by workers? What do you do if any theft or malpractice comes to your notice?		

120.	Is there any discontent shown regarding the surveillance by the workers? How supportive have they been?		
II. 11. Sustainable Labour Practices			
121.	What initiatives have you taken to uplift the personal lives of karigars/babus/other employees? (Give details)		
122.	What are the additional benefits beyond statutory benefits you have given to karigars/babus? (Outplacement service, education loan, rehabilitation)		
123.	What support did you provide Karigars/Babus during coronavirus spread? How were they sensitized regarding it?		
124.	Since most of the karigars are migrant workers, how did you ensure support for them? Any incentive provided for staying back?		
125.	What initiatives you took to ensure their safety during this pandemic outbreak?		
126.	What can be done to uplift workers' social status in this industry? Any suggestions?		

***Please ask a copy of Blank salary slips/ appointment order/compliances sheet (if any) etc., for record**

Questionnaire - Karigars -Part A and B

<u>Part A</u>									
Demographics									
<i>Personal Background</i>				<i>Work-related Information</i>					
Age (in years)						Number of years in the industry			
Gender	Male	Female		Others		Work Experience in the present company			
Education	School dropout	Secondary school (Class X)	Higher Secondary (Class XII)	Graduation	Post-graduation & Other	Nature of employment (permanent/ contract/seasonal/ temporary)			
Present location						Who brought you into the business?			
No. of dependents/ family members						For how many Babus are you working?			
Occupation of your great-grandfather/grandfather/father						In which part of jewellery making do you specialize?			
Other family members working in this industry?						The average time you take to create assigned jewellery part			
Average income/month						Accommodation provided	Yes No		
Average family income (from all sources)						Facilities in accommodation			
<i>Social Background</i>									
Hometown/ ancestral village						Does Babu belong to	Same village	Yes	No
Frequency of visiting hometown/village							Same Community	Yes	No
Community/Caste/ Religion						Have you recommended any family members to join the industry?		Yes	No
Caste system in your village									
Planning to migrate, if yes, where?									

SI. No.	Questions	Views of the respondent	Factual/Observation (By interviewer)
I. Motivation to join the industry			
1.	What made you join this industry? Any specific reason?		
2.	What were your expectations before joining? Are those expectations met?		
3.	What basic skills did you know before joining the industry?		
4.	Will you continue working in this industry? If not, which industry will you join?		
Recruitment			
5.	How did you join this company?		
6.	Who approached you for work? (friends/relatives/Babu/village contractor)		
7.	Did you get formal appointment letter after joining?		
8.	Did your babu/manufacturer do any background verification ?		
II. Compensation and Benefits			
Compensation			
9.	How does the salary get transferred to you? (cash/account/through Babu, any other)		
10.	Do you also receive salary slips?		
11.	What are your pay components? (fixed pay/variable/ratio of fixed and variable). Do you also receive anything in kind?		
12.	Is there any probation period in your company? If yes, what is the duration?		
13.	How do you get compensated during peak or lean time?		
Incentives/Bonuses			

14.	Is there an incentive system? On what basis do you receive incentives?		
15.	Do you get the annual bonus? What is the rate (percentage of salary) of bonus?		
16.	Does your Babu/manufacturer ensure that you get minimum wages?		
17.	Do you get medical insurance/ medical reimbursement benefits?		
18.	Does your Babu/manufacturer also provide maternity leave for female karigars?		
<i>Social Security Benefits</i>			
19.	What all social security benefits does your manufacturer/babu provide you? (PF/ESI, gratuity, leave encashment, retirement plan/any other)		
<i>Discretionary Benefits</i>			
20.	Do you get incentives for further education/ education loan/housing loan/healthcare benefits?		
21.	Does your manufacturer/babu facilitate you in getting any certification from Skill India?		
22.	Do you get a canteen facility/ subsidized food?		
23.	Have you been provided with uniform? Is it free? Any specific feature of the uniform?		
24.	Does your manufacturer/babu help in rehabilitation if you get addicted to bad habits like pan/gutka/tobacco/cigarettes?		
25.	Any other discretionary benefits? Do you get any retirement benefits?		
26.	What are the various schemes under which you are registered? (Pradhan Mantri Jan-Dhan		

	Yojana, Ayushman Bharat Yojana, Government retirement plans, Atal Pension Yojana, others)		
II. Engagement and Retention			
27.	How many people leave this job in a month/season/year? Has there been any mass resignation in your team/company recently? If yes, why?		
28.	What are various retention strategies used by your employer to retain you?		
29.	How does Babu/employer react when karigars leave jobs during peak season or in between?		
30.	What are the employee engagement policies in your company?		
31.	Does your employer provide you yoga/gym/sport/ any other recreational facility at the workplace?		
32.	Are your family members involved/engaged in any recreational activities (Yoga/gym/sports day) or celebration of any festivals /invitation to company's annual day/ plant visit or manufacturing site visit?		
III. Performance Monitoring and Feedback			
33.	How are work targets set for you? How is the performance measured? Is there a formal system of performance measurement in your company?		
34.	If you still make a mistake after your feedback, how do your babu/manufacturers respond?		
35.	Do they also take feedback and suggestions from the workers regarding the same?		

36.	How much time and resources you require to do your job?		
37.	If there is more than target waste, how will it affect your work and how does Babu/manufacturer react to it?		
38.	If there is a design flaw, who takes care of responsibility for that flaw?		
IV. Promotion and Careers			
39.	What is the career growth opportunity in your company? Are you encouraged to become Babu?		
40.	Have you been given any designation in the company?		
41.	What promotion criteria is used in your company?		
V. Task interdependence			
42.	Do you prefer working in a team or independently?		
43.	How do you coordinate with each other? Do you need help in coordinating with the team members? If yes, what are they?		
44.	Have there been any conflicts so far (personal/workplace)? If yes, how did it get resolved?		
45.	Do you communicate and discuss workflow- related difficulties with Babu? How does he address your concern?		
VI. Post-retirement Plan/Separation			
46.	What are your future plans? What will you do after retiring from here?		
47.	Do you have enough savings after retirement and will not face a financial crisis?		
48.	Would you recommend your kids to join the industry? If not, why not?		
VII. Work Arrangement			

49.	How is your work relationship with Babu/Head Karigar/Supervisor?		
50.	How is your work relationship with manufacturers/jewellers?		
51.	Are you directly employed or through babu?		

Part B			
<i>(From Decent Work Framework)</i>			
I. Labour Market Security			
<i>Employment status</i>			
1.	If you are a temporary/seasonal/contract worker, what is the duration of your contract with the employer?		
2.	Is the company you are working with registered/ has legal recognition? Yes/No/Don't Know		
3.	Is any license or certification/qualification required to join this industry?		
<i>Working Hours & Leaves</i>			
4.	How many hours do you work per day/week?		
5.	How many breaks do you get during the day? What is the duration of the break?		
6.	Type of leave	Paid	Unpaid
	Casual		
	Sick		
	Annual		
	Vacation/Festivals		
Any other			
7.	Are the leaves decided in consultation with babu/supervisor?		
8.	How many holidays do you get in a year?		
9.	Do you also work during weekends? Is yes, do you get a compensatory holiday or payment if you work on a public holiday or weekly rest day?		
10.	Do you work overtime? If yes, do you get paid for overtime? What is the rate of overtime payment?		

Adequate Working Time and Workload			
11.	Is the average number of hours you work per day adequate/ appropriate?		
12.	Does your work/job allow you to have time for your family/personal life?		
13.	How is the workload on daily basis? What is the productive number of working hours in a day?		
14.	Is the pace of your work/job appropriate?		
Skill Specialization (Marketability)			
15.	Which jewellery type do you specialize in and how much time does it take to complete?		
16.	Are you involved in only one type of work or multiple types of work?		
17.	What is the reason for your specialization in the present skill? How did you learn and enhance it?		
18.	What skills have you learnt in the past five years? What you gained while working in this industry (skill vs other gains)		
19.	Which skill/knowledge expertise is required to progress in the career?		
20.	What is the demand for your skill in the market? (Marketability of your skill/craft)		
Job-related factors			
A. Physical effort			
21.	Do you suffer any physical difficulty in performing your work?		
22.	Are you provided with machinery/equipment /tools which make work easier?		
23.	Is the space provided for work adequate?		
24.	Which part of your job requires the highest level of physical effort?		
B. Cognitive effort			
25.	Is your job type routine and repetitive or does it involve thinking and understanding? If yes, to what extent?		
26.	Do you also get a chance to contribute to the designing of jewellery or any other activity (process/quality improvement)? If yes, do you get any additional rewards for that?		
27.	Which work/skill requires the highest level of concentration and focus?		

28.	Have you been exposed to the latest technology for making jewellery? Or given the training to upgrade your skill?		
29.	Is there an immense pressure/stress in doing this job since there is no scope of making mistakes here?		
30.	Do you get clear instructions for design? If there is any design complexity, do you get help from Babu?		

C. Emotional effort

31.	How do you feel while creating jewellery?		
32.	Is it only for livelihood or also to enjoy doing your work? Which part of the job do you enjoy the most?		
33.	Do you get any type any emotional support from babu/manufacturer?		
34.	Do you feel fear of handling such precious metals? Fear that it may get mishandled or broken.		

Job Loss/Separation

35.	Are you employed around the year, or is it seasonal/temporary employment or ad hoc?		
36.	If you are a temporary/seasonal/contract worker, how often are you are without work? Is it okay with you? What could be the reason for staying without work?		
37.	Have you experienced job loss? Yes/No. If yes, why? How do you look for a new job in such a situation?		
38.	Have you been asked to leave the job during lean or recession time?		
39.	Are you free to resign or leave your job when desired? Is there a notice period?		
40.	If you leave your job or get fired, is it difficult/easy to find a new job?		

Restrictions on women seeking work

41.	Are there restrictions for women or any other group to find jobs in this sector? If yes, what could be the reason?		
42.	Is there any specific job role for women or any other group?		

II. Job security

Skill Variety

43.	Is your job a complete work with an obvious beginning and end? Or is it only a small part		
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	of the overall work, which is finished by other people or by automatic machine?		
44.	Are you also involved in assembling the product or make the part assigned to you?		
45.	How much variety is there in your job? Are you interested in learning cross-skills? Does your babu encourage you to learn different skills?		

Task Significance

46.	Where does your assigned job belong in the entire cycle of jewellery making? How significant is your job for the process to complete?		
47.	How will it affect the workflow if you do not complete the job on time?		
48.	What is your contribution to the whole process of jewellery manufacturing?		

Ease of knowledge transfer

49.	Do your peers share their work-related knowledge with you? Do you also share the same?		
50.	Is it possible to train someone in your skill?		
51.	Which knowledge of the jewellery manufacturing process can easily be transferred?		
52.	Does Babu share knowledge with you and others?		

Task Identity

53.	Do you feel proud associating yourself as a specialist karigar? (Region specific/design specific/component- specific)		
54.	Do you want to continue working as a specialist?		

III. Work Security

Physical Work Conditions

55.	Does your workstation have the following amenities?		
	i.	Area of sitting space per worker	
	ii.	Sitting arrangement of workers (table and chairs/on the floor)	
	iii.	Lights and AC/fan	
	iv.	Use of microscope/magnifying glasses	
	v.	Fume evacuation apparatus/ Exhaust	
	vi.	Washroom and Retiring room	
	vii.	Changing room/ lockers	

	viii.	Separate room/waiting room for female karigars		
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Health & Safety

56.	Does your manufacturer/babu comply with the following health and safety norms, mentioned in RJC guidelines?			
	i.	Safety equipment and protective clothing while handling hazardous chemicals/acids, gas torches, sharp tools and machinery?		
	ii.	Secure facilities for storing chemicals used in the workplace		
	iii.	Safe and hygienic facilities, including toilets, eating areas and first aid		
	iv.	Safety information, training and supervision		
	v.	Fire safety equipment and alarms		
	vi.	Regular health check-ups		
	vii.	Safety equipment and protective clothing while handling hazardous chemicals/acids, gas torches, sharp tools and machinery?		
	viii.	Childcare and nursing facilities in accordance with applicable law		
	ix.	Sexual harassment cell		

Hazardous Substance

57.	Have your manufacturer/babu identified hazardous substances and processes and trained you about their safe use and handling?			
58.	Does he have written policies and procedures for handling hazardous substances?			
59.	Have you been informed regarding their proper waste disposal? (chemical and hazardous waste)			

1. Skill reproduction security

Training and skill development

60.	Are there any formal or informal training programs (in-house, mentoring) for the skill enhancement of the existing karigars?			
61.	How were you trained when you joined this company? Was there any induction program?			
62.	How Babu trains you? Have you also been asked to train others?			

63.	Have you been sent for training to outside agencies/trainers?		
64.	Have you received any technical advancement training after joining the job?		

IV. Job Autonomy

65.	Does your job allow you to use your initiative or judgement in carrying out the work given to you? Do you have any autonomy to suggest any new changes in design?		
66.	Does your Babu work independently, or is it restricted by the conditions led by jewellers?		
67.	Who provides you with designs and sets the entire process of making jewellery, is it the manufacturer or babu?		
68.	Are you allowed to express your opinion at your workplace without any hesitation?		
69.	How does the Babu divide the work? What is the process followed in dividing the work? Do you have any freedom to decide the process?		

V. Income Security

70.	How is your compensation decided? Is it mentioned in your appointment order?		
71.	What is the frequency of payment? Is it daily/weekly/fortnightly/monthly/seasonal?		
72.	Are you paid more than the minimum wage? Are you aware of the minimum wages in your region/place?		

Fringe Benefits

73.	Do you stay single or with your family?		
74.	Does your company provide you with family accommodation?		
75.	Does the Babu/manufacturer take care of your requirements also?		

Wage arrears

76.	Have you ever received arrears?		
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Adequate income

77.	Is your current level of salary sufficient to meet your basic needs?		
78.	Are you able to save money for the future need?		
79.	Have you taken any recent loans or advances? (from Babu/jeweller/moneylender, bank etc.)		

80.	Are you satisfied with the salary you receive? Is it the same or less compared to your peers in the market?		
Expenditure Pattern			
81.	Where do you spend a major portion of your income frequently? (medical, child education, food, clothes, accommodation or others)		
82.	What is your staple food? Any other supplement you take? (fruits, milk, health supplements)		

VI. Representation Security

Associations and unions/ freedom to voice			
83.	Are you part of any Karigars' association or union? If not, are you aware of any karigars' association or union in this industry?		
84.	Does the jeweller or Babu encourage them to join the associations?		
85.	What kinds of issues are taken care of by associations/ unions?		
86.	Do you pay for membership?		
87.	How are union leaders elected? Do you trust them?		
88.	Any challenges that you are facing with these associations?		
89.	Do you think you are better off without a union/association?		
Grievances			
90.	If you have grievances, whom do you approach?		
91.	Is there a formal grievance mechanism in your company? If yes, what is the process of raising complaint? If not, then who do you approach for grievances?		

VII. Dignity at work

Participation in decision-making and feedback			
92.	Do you think decision-making processes about your work are fair?		
93.	Are you free to think and express your opinions about your work?		
94.	Does your head karigar/Babu give you feedback on your work? Do they let you know how well you are performing the job?		

95.	If there are some mistakes, how is the response of your Babu?		
96.	Can everyone participate fairly in making decisions at your work?		
97.	Do you have a suggestion box/idea bank/knowledge-sharing platform at your workplace?		

Fair treatment at work

98.	Is your Babu abusive sometimes? If yes, has he been physically abusive to you or any karigar?		
99.	If yes, how do you resolve such situations? Do you seek the help of your friends/peers/association in such cases?		
100.	Do you think you are accepted for who you are at your workplace? (regardless of sex, age, ethnicity, religion, political orientation, etc.).		
101.	Are you treated with dignity at your workplace?		

VIII. Gender Equality at Work

102.	Are there women employees at your workplace? If yes, are they part of your team too?		
103.	Do they get the same type of work as you or different specialized work?		
104.	Which type of work are they generally given? Can men and women do similar types of work activities?		

IX. Social Factors

105.	Has the standard of living improved after joining the industry?		
106.	Is there wage disparity or work discrimination based on social class/status?		
107.	Do you socialize with other communities' workers?		
108.	At what age your immediate parents/grandparents died if they were in the jewellery industry?		
109.	What are your reasons for migration? (For migrant workers only). Please reply in Yes/No.		

110.	i.	Rigid caste system/caste discrimination in village		
	ii.	No employment option		
	iii.	For better remuneration		
	iv.	Good working condition		
	v.	Social status		
	vi.	Opportunity to experience life in a city		
	vii.	Freedom		
111.	What help was provided by your Babu/manufacturer during the COVID-19 spread and lockdown?			

Quotes by Karigar's about the working conditions and challenges

- *No Salary received during training, karigar's are used as helping hands to sweeping and mopping floors, preparing foods and bring tea."*
- *"Living conditions of workers are bad, we live in a small room, where we work, eat, sleep"*
- *"Retirement age is 40 years, Karigar's start having back pain, leg pain and eye vision gets weak".*
- *"Use of Nitric and phosphoric acid creates breathing problem in long run"*
- *"Job work is safe, risk factor in being entrepreneur"*
- *"No one from the family wants to join the industry due to bad working condition and less income. Karigar want their children to get educated and do white collar job.*
- *"Majorly karigar's joint the industry to support their families and their relatives introduce them to the industry.*
- *"Karigar does not want to continue to work they will leave if they get good suitable job. They do it in compulsion.*
- *"No job security or other medical benefits only place to stay and food is provided.*

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