Submission for Conference on "Informal and Everyday Markets: Modern Histories of Indian Business and Entrepreneurship since the Nineteenth Century," at University of Göttingen, Germany

Understanding Trade Credit Institutions in Small Businesses: History and Sociology of the Informal Footwear Industry in Agra

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(Very, very preliminary draft – please do not quote or cite)

Abstract

This article attempts to understand how (and why) are small, household manufacturing units able to (and forced to) offer large trade credits to their buyers, by studying centuries old footwear industry of Agra (India). In doing so, I show that market institutions in small businesses emerge from the difference in bargaining power between the elites and non-elites transacting with each other, and are usually path dependent in nature.

In part I, I show how informal shoemakers ingeniously negotiate with the problem of supplying shoes on credit through intermediaries who buy the credit at a discount (just like commercial paper). The discount rate varies inversely with creditworthiness of the trader who issued the credit slip, arresting traders' cheating tendency. The average discount rate in the market, my empirical work reveals, is 5% more than banks' interest rate. This is a crippling financial burden that the shoemakers have to bear.

In Part II, I explore the why. I narrate the historical development of the footwear industry (and the credit institution) in Agra through explaining caste-based occupational hierarchies of small artisanship in India. Over time, I show, institutions reflecting power difference created centuries ago have been fossilized in the market.

Using both primary fieldwork and archival study, I aim to excavate the silences of sociology of markets in India, and push the frontiers of relevant theoretical frameworks in two directions. Firstly, towards viewing how institutions are path dependent in nature and; secondly, towards showing that seemingly efficient market institutions are not necessarily welfare enhancing but conceal embedded networks of caste/class, which, in exhibiting internal trust mechanisms and pivots of self-regulation are also sites of extractive capitalism.

1. Introduction

Trade credit is often used in business to business transaction wherein customers buy credit from the suppliers themselves. Research has shown that implicit borrowing from the suppliers is an alternative to bank credit.[1] Financing needs of countries where formal financial intermediaries are not well developed or which suffer from low vertical penetration; firms with financing needs will fall back upon their own business-relatives (usually suppliers) in the form of trade credit.

The literature on theory of trade credit is plenty, and exhaustive, yet it largely hinges formal markets and regularized transactions. More importantly and puzzlingly, it has been observed that many times, small firms who have high cost of liquidity offer large trade credits to their suppliers.[2] This is counterintuitive and merits further exploration. My attempt in this paper is to highlight and address both these shortcomings, and analyse emergence of such market behaviour through viewing into the history of the relevant market. I show how informal markets could also invoke trade credits in their transactions, and how is it possible for small (household) unit to offer large trade credit to its customer.

I study the leather footwear industry of Agra (India), and show that (a) informal markets have ingenious ways to develop reliable institutions of trade credit, and (b) large trade credit can be offered by small firms due to difference in bargaining power between the players, and could simply be historically fossilized on the social fabric of the market.

The importance of selecting leather footwear industry is not random. India has a 3.5% share in the global leather trade and ranks eighth in the world for leather-related foreign exchange earnings.[3] The annual turnover of the leather industry in India touched 7$.5 billion, of which the exports totalled $4.6bn (2011-12), recording a cumulative annual growth rate of 8.22% (five years).[4] The industry employs 2.5 million people, and contributes to 15% of the European and 10% of the global leather goods.[5] Of all leather related goods, leather footwear assumes important position. India is the second largest manufacturer of leather footwear, after China, with an annual production of more than 1000 million pairs.[6] This figure doubles if we look at non-leather footwear too.[7] Important here is to note that 60% of leather footwear in India is manufactured in household industry,[8] which is strictly caste segregated.[9]

Agra is *the* most important centre of footwear manufacturing in India. Agra supplies to around 45% of domestic market demands and caters to 22% of total footwear exports from India.[10] Around 25% of city's population of 1.7 million is directly or indirectly involved with footwear industry.[11] Council for Leather Exports estimates that there are more than 5,000 units of footwear manufacturing in Agra. The industry is truly massive, and the wholesale trading takes place through trade credit. I illustrate the informal market institutions of trade credit in Agra and show how our understanding of informal businesses in India may lie in unearthing the history of the businesses.

2. **Footwear Industry in Agra and its Organisation**

Agra is the second most self-employed city in India. The NSS data (2003-04) reveals that of every 1000 males, 603 are self-employed.[12] This gives the city, an enormous 500,000 plus males in self-employment. This is higher for females: for every 1000 women, the number of self-employed females is 789.[13] Indeed, these figures are reflected in Agra's sprawling informal markets at almost every nook and corner of the town. And so, aside from being a poster child of India's tourism, boasting of Taj Mahal in the background wall of international travel agents' offices, a more profound identity of Agra draws itself from the massive self-employment figures of the city.[14] As a result of this, the city has developed a distinct identity of its own. Witnessing Indian entrepreneur in Bangalore who started an IT company, or in commercial hub of Pune/Mumbai only masks the real entrepreneurs of India, millions of whose clans raid markets over markets in the most astonishingly organized manner of the unorganized activity.[15] Leather footwear industry is Agra's prime achievements boasting even at international levels, accounting for 22.7% of India's footwear exports.[16]

Since shoemaking has been a labour intensive industry (and not capital intensive), it is easy to imagine a high number of unorganized self-employed units engaged in footwear manufacturing. Rough estimates suggest that 80-85% of total contribution towards domestic shoe market from Agra comes from the self-employed household-based artisans (several of my interview records suggest so; it also emerges from preliminary calculations based on number of units and their daily production).

Their units are clustered in specific localities, totalling into 355 *bastis* (colonies).[17] With an average of 30 units per *basti,* there are approximately 10,000 units that make footwear. Averaging 20 shoes per day, the daily figure of shoe making from unorganized sector reaches almost a quarter million.[18] For an average pair worth Rs. 100 to the wholesale trader (lowerbound estimate), the daily trade easily touches Rs. 20 million from the unorganised sector alone![19]

The artisans who work in the factories and those who own their unorganized household units almost entirely belong to the sub-caste of *Jatav* (sub-sect of the caste: *Chamar*) community, and some Muslims. *Jatavs* are people of low caste in the Hindu caste system and have been offered affirmative action under the Indian Constitution under the status of scheduled castes. Since history, their socio-economic situation has always remained deplorable. The caste based segregation of the industry has been a very powerful factor in its construction, as I show later. These artisans are self-employed people who make shoes in their household (converted into footwear units), working with their family members. They purchase the raw material from the market, use few tools that they have manufacturing a fixed set of shoe-pairs, and sell them in the evening in one of the *mandis* (markets). They do not exist on paper.[20] They do not have registration number, do not pay taxes, have no social security, do not follow or conform to any laws, and therefore fall entirely in unorganized/informal sector.[21]

3. Institution of Trade Credit in the Market

3.1. Trade Credit Chain

Agra's wholesale traders (or simply traders) get footwear from one of the manufacturer types (organized small player or unorganized) and sell it to wholesale traders in different cities in India (and sometimes to retailers in Agra). Trading takes place on credit. This means that everyone in the supply chain sells products on credit. Payments are withheld until the last agent (retailer) receives money for his sale, after which payments are made backwards. Manufacturers are the last ones to receive their due. Their outstanding period is generally three months. This is illustrated in table 1. While the shoemaker gives the shoes to trader in Agra at time *t=0,* it is only at time *t=3*, that the customer pays the retailer. Hence, chain of credit begins completing at time later than *t=3.* This clearly means that the longest wait for the payment is suffered by the shoemaker/manufacturer. Retailer has the highest bargaining power in terms of trade credit, while shoemaker has the lowest.[22]

PLAYER	**TIME t**	**ACTION**
Shoemaker	t=0	Makes shoes
Shoemaker	t=1	Sells shoes to Trader 1 on credit
Trader 1 (Agra)	t=2	Sells shoes to Trader 2 on credit
Trader 2 (Mumbai)	t=3	Sells shoes to Retailer on credit
Retailer	t=4	Sells shoes to Consumer
Retailer	t=5	Pays to Trader 2
Trader 2 (Mumbai)	t=6	Pays to Trader 1
Trader 1 (Agra)	t=7	Pays to shoemaker

Table 1: The credit chain and relative payment schedule: shoemaker is the residual bearer of credit risk

This system can work if the shoemaker (manufacturer) can bear the delay. A quick look at business transactions around the world will reveal that this is not unusual. However, in most cases, these transactions are formal in nature, and in event of breach, courts of law can be moved. Secondly, more often than not, manufacturers of most goods traded on credit have low cost of liquidity and they are indeed able to bear the delay. These two characteristics differ in Agra's market. Firstly, the entire trade is maintained on trust; and secondly, the household artisans are poor, unorganized shoemakers, who *cannot* sustain their livelihood on credit. They work on brutally thin margin and their savings on labour costs (since they only employ their family members) is the real savings they have. Their dismal financial state makes their existence best explained in 'hand-to-mouth' fashion. Their cost of liquidity is unaffordable. Here, these two problems of:

a. trusting the trader to pay hid dues (*credible commitment problem)*, and
b. finding instant cash for buying raw materials and sustaining his family (*liquidity problem)*

are addressed through the institution of a *trade credit slip,* commonly known as *parchi* (literally translating into *paper slip*).

3.2. The Informal Institution of Parchi

Shoe trading in Agra takes place in *Hing ki Mandi*, which has historically been the hub of shoe trading. In a space of not more than 4 sq. km., there are more than 1000 trading units to be found. Evenings when trade takes place, this area is a sight to behold. The utter chaos of men (literally) and shoe boxes, with two-wheelers, rickshaws and constant noise of horns and human voice makes it an extremely unpalatable view for a foreigner who has come to Agra to see Taj Mahal. It is in this chaos that one finds a hidden order and equilibrium of interactions, sensitively hinging on gossips, rumours and beetle leafs.

3.2.1. Solving the credible commitment problem

Solving the first problem is easy. When shoes are sold, the trader in *Hing ki Mandi* issues a parchi to the shoemaker which bears shoemaker's name, the amount due and date on which this amount will be payable. The parchi is signed by the trader. If there is sufficient trust in the market, then a paper slip like this can assume importance. This trust comes from the prevalent high degree of information symmetry. Almost everyone knows everyone and therefore news of non-payment spreads fast. If a trader reneges on his payment, this is quickly known in the entire market through informal channels of information dissemination (think about gossips, chats, rumours and informal gatherings in a busy bazaar of India). The market is very cohesive and one can find traders on the phone almost entirely through the day. Outside the market, most traders are members of same organizations, visit the same clubs and even have residences in same area (like Jaipur House). They belong to the same caste (Punjabis) and have frequent conjugal alliances. The same is true for household artisans, who have same caste (*Jatavs* - *chamars*), live in certain ghettos and exist as the same subalterns sharing each other's' history and misery. They share stories, rumours and build information. Opportunities for arbitrage are low. Hence, if the news of a trader not paying his dues is revealed in the market, almost every shoemaker will stop trading with him. The sanction does not only affect him, but all of his family run units (say trading units run by his sons). Boycotting the payment comes with a huge cost of future earnings. The discounted value of the cost is high enough to compel people to fulfil their promises, regardless of whether they are legally binding. This solves the problem of trust and credible commitments. The parchi acts as an informally enforceable contract.

3.2.2. Solving the liquidity problem

The parchi also solves the liquidity problem, and this is where the ingenuity of the market is exemplary. The parchi is tradable in the market and acts purely as a promissory note. The shoemaker, after collecting his parchi from the trader can sell the parchi to some intermediary at a discount. This man in local dialect is called *adhatiya*. The adhatiya pays the face value of the parchi less his interest on the parchi. This interest of adhatiya is a discount for the shoemaker. On the due date, adhatiya will approach the trader and redeem the parchi against the amount mentioned thereon. The system addresses everyone's problems on the surface: shoemakers get instant cash equal to the worth of the parchi minus the interest rate, adhatiya earns this interest rate and trader gets the credit.[23]

The next question is, how big the interest rates are and what do they represent. Very interestingly, the only factor that affects the interest rates is the reputation and creditworthiness of the trader who issued the parchi. This means, if A is considered to be trustworthy and market values his promise, the interest rate will be lower than someone called, say C, who has an inferior reputation in the market. The interests on parchis act as a reputation indicators. If C has a poor payment record, his parchis will be sold at a high interest rates. This will disincentivise the shoemaker to approach C with his shoes because shoemaker doesn't want a high interest parchi (the interest of the parchi is the cost of the shoemaker). Hence, C has an incentive to adhere to his promises and create a good reputation. The parchi institution therefore creates a self-enforcing mechanism. If one defects from payment, his interest rates rise to the extent that people stop trading with him. It is also noteworthy that parchis could not only be traded for liquidity but can be exchanged for raw materials in the same market. This is extraordinary because as promissory note, parchis could be used to purchase items used in shoe making, thus reducing transaction costs.

In a market with low levels of information asymmetry, the information about creditworthiness is a common knowledge in the market. Hence, interest rates change when the news of changing creditworthiness spreads. As mentioned earlier, the sanction of trader reneging on his payment is his boycott by shoemakers. From game theory perspective, this is a case of repeated interaction. Because footwear industry in Agra is characterized by family units, there is no end game-state because even if a trader is reneging on his payment, his children will need to carry forward the business. More importantly, social and family ties matter, ensuring credibility. But parchi system achieves a more nuanced element of enforcement. Not only a trader is punished upon non-payment, he is also taxed for delayed payment in form of interest rates. Indeed, the trader cannot falsify his worth either. If market observes that he has een issuing parchis much more than his expected worth, adhatiyas will spike up the interest rates.
Mathematically, if c denotes creditworthiness and i is the interest rate on parchi, then,
$i=f(c)$ and $f'(c)<0$

3.3. Salient Features of Parchi System

a. Non-justiciability: The parchi is simply a written piece of paper with no legal obligations. Yet the system works very efficiently.
b. Scheduling: Parchis are usually issued for three months credit, and for convenience's sake, due date on parchi is always either of the following days: 5, 10 15, 25 and 30 of the said month (or the next day of it's a Sunday or a holiday – the *Hing Ki Mandi* market remains closed on Sunday). Most traders are therefore found in their shops, and one can see them

handling the parchis on these days. If not, they will assign someone trustworthy who can make parchi-payments. Bottom line being the promise *has* to be fulfilled.[24]

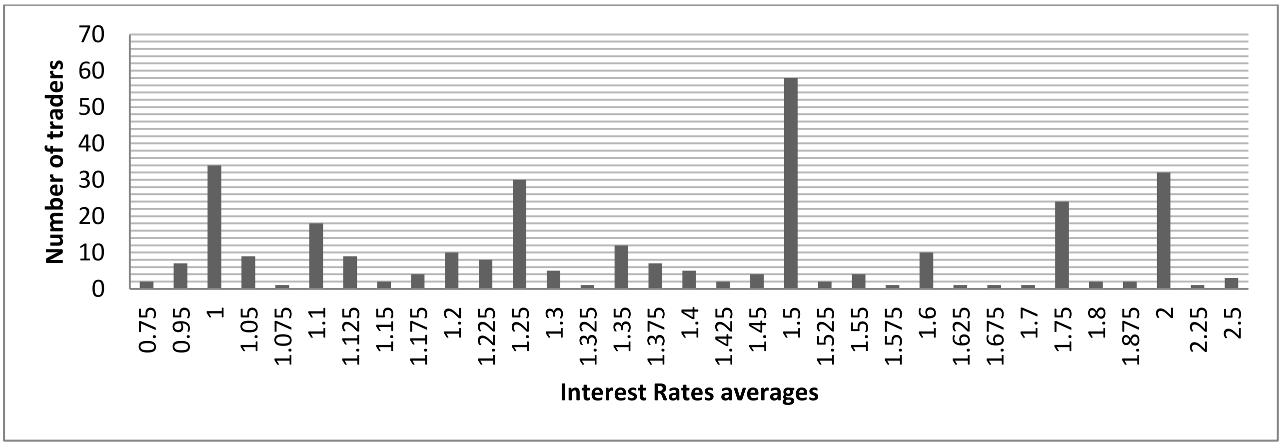
c. Massive reputational impact of non-payment: The reputational impacts are so strong that any renege on the parchi payment will bring down the credibility of the trader massively. If this happens more than once, his parchi may simply not run in the market and will lose all value, thereby forcing him out of business. Infact, one can see the traders frantically trying to arrange cash a day before the parchi-payment-date, so that none of their creditors have a reason to return. Note that one word of falling credibility out in the market will spiral into rumours that will create a systemic downfall of the trader. There is no room for delay in payment therefore. In financial terms, one can see an interesting credit rationing happening in the market.[25]
d. Parchis as currency notes: The parchis are not just used for selling against cash, but they can be directly used for purchasing raw materials used for manufacturing shoes.
e. Value: Parchis can be issued for any value literally. During my fieldwork, I have seen their values ranging from Rs. 2000 to Rs. 1 million. Needless to mention here, high values of parchis are traded with only organized players.
f. Parchis against entire value of goods: It is uncommon for a manufacturer or a trader to settle down for a parchi against entire lot that is being sold. More often than not, the trader hands out cash for part of the total value and issues a parchi for the remaining amount. The cash bit takes care of necessary item where parchi will not work (for e.g., paying off to workers their salaries, buying food for the house) and parchi takes care of production sustenance. For the trader, it makes sense because it helps him build more commitment.
g. Price of shoes based on proportion of cash payment: Proportion of cash and credit determine the prices at which shoes are bought by the trader. A trader will usually pay less for shoes if the proportion of cash payment is higher. Effectively, it is an internalizing process of the interest rates on his parchis.
h. Cheating: Instances of cheating (willful non-payment of parchi amount at the stipulated time) are rare, but they do happen. Usually the boycotted trader can return to the business by dealing in cash only. Every shoemaker wants cash dealing so that costs of interest on parchis could be avoided. Hence, they may not care about past history of the trader as long as they are receiving cash. Starting a dead business in 100% cash is difficult for the trader, though.
i. Associations: *Hing Ki Mandi* has many different smaller markets, set up in narrow lanes and by-lanes of the main street. Each of these markets have their associations, and so does the entire market. Veterans of shoe trade and many other 'respectable men'[26] of the trade form an arbitration panel that address issues of potential conflict.
j. Bankruptcies: It is easy to imagine a situation where the trader goes bankrupt since one of his major payments didn't come through, either in time or at all. If the trader has reneged on his parchi's promise – whatever be the reason – he will see his interest rate increase, and after a point, his parchi will not have any value in the market. This practically means that he cannot do business henceforth. But he owes money on parchis already issued. Since his goods are lost, he could be declared bankrupt and in such cases, informal associations of different markets form a panel to decide on the fate of the firm: how much of outstanding needs to be cleared off to whom. These informal dispute resolution mechanisms have emerged as very effective means of reconciliation.
k. Barriers to entry: Indeed, if a trader always deals in cash, he is considered to be 100% credible. New entrants who have zero credibility need to begin with cash alone. This coupled with high levels of trust issued create high barriers to entry, reflected in old family businesses dominating the market almost entirely.

I. Interest rate fluctuation: Interest rates may move depending upon liquidity available in the market. During the times of credit constraints, particularly when there is a slump in the market, the interest rates increase. Liquidity constraint can also come in the time of festivals. One major festival in Agra is Diwali, which falls in the months of October/November. During these months, there is more work than which could be handled. Everyone is in need of cash for procuring and producing more. This creates liquidity constraint and increase in demand for cash pushes up the interest rates. Note that interest rates of *all* traders rise equivalently, so relatively speaking, they are all at the same level.

3.4. Value of Interest Rates on the Parchis

Since parchi system is an unaccounted transaction, traders are extremely secretive about the system, particularly to those who do not belong to footwear industry. Hence, the data collection took long: it was conducted during February, April, May and June of 2013. I interviewed several insiders and discovered the prevailing interest rates of parchis of 312 traders. For each of these traders, I have the values of their interest rates from two different sources, to avoid any judgmental errors. I have taken the average of these sources, and arrived at mean value of interest rates of each trader. Through this, I have calculated the average interest rate of the entire market. I consider my sample to be a fairly good representation of the entire market, since the traders were collected randomly. Upon careful investigation post-survey with market participants who were able to develop some trust in my friendship, I have learned that the 312 traders fall in various categories based on revenue size.

As a custom, the interest rates are mentioned in rupee per hundred, per month. I arrive at an average monthly interest rate of 1.41%. For simplicity we assume this is 16.8% annually, interested simply (a compounded value will yield 18.2%). The lowest monthly interest rate prevailing in the market is 0.60% and the highest goes to 2.5%. Interestingly, the interest rates move in an interval of 0.1 unless the rounding yields quarter or three-fourths figure. The only possible reason is to keep calculations simple.



Interesting findings are revealed when I compare the trade credit interest rate with that of the banks in the area. With variations ranging in plus minus 0.25%, almost all Indian banks dole out personal loans/advances at around 14% per annum. The working capital loans are given at 11.5% per annum for values below Rs. 500,000. For higher value advances on working capital, the interest rate hovers around 12.5%.[27] Since the mean value of interest rate on trade credit is 16.8%, we notice a significant 5% (approximately) difference in the interest rates. It is therefore startling that shoemaker would still prefer to trade at higher interest.

4. Observing the Power Difference: Cost of the *parchi* Institution

Very briefly here, I show the disempowerment of the shoemakers, which makes this market different and illustrate that there is a need to understand trade credit as a means of exploitation of non-elites by elites.

Cost to Traders and Adhatiyas: Traders, as is amply clear, do not bear any cost of the system, but benefit by securing credit without any interest. Similarly, the adhatiya he pockets the discount he claimed on the credit from the supplier. In other words, he earns the interest rate on the parchis. The institution does not cost him anything.

Cost to Shoemakers: Since the credit is sold by the shoemakers at a negative interest rate (which is discount), it is natural to assume that they will capture the interest rates in the price of the shoe when they sell it to the traders. Traders would in turn, transfer the cost to retailers, from where it goes to the customers. In other words, if the shoes are worth x, they will be sold to the trader at $(1+i)x$ when the payment is made through parchi, (where i is the prevailing interest rate of this trader in the market). This can get transferred until where the chain ends – at the customers. In effect therefore, the organised small players do not bear the cost of the parchi. They simply transfer the cost to the consumers.

While this may happen with organised manufacturers, the story is totally different for the poor artisans. They are both socially and economically at the bottom rung of the societal ladder. Their bargaining power is severely curtailed by their lack of access to assets. They run their household on meagre subsistence. They work with their family members and thus save the cost on labour. Since they work by hands, their daily production is not just limited but also exposed to uncertainties of poor health and cash flow. Given their vulnerabilities and rather limited contribution to traders' revenues, the traders make good use of their bargaining power. The trader, over time and through experience, possesses a fairly accurate sense of manufacturing costs. He squeezes the artisan until the last penny and then, also makes him absorb the discount on the credit. The artisan transfers it to his own enterprise and is able to do that since he does not pay labour charges to his wife and children. Therefore, he works at the point, where his marginal costs and marginal benefits are equal, thus earning zero economic profit. He has a positive accounting profit because he does not include labour of his family members in the cost component.[28]

The questions then, that remains unanswered is a simple one, namely, why would shoemakers accept the exploitation they suffer through the parchi system. One may think this is purely due to their financial condition – they are asset stripped and therefore have little bargaining power against cash surplus traders. This is indeed obvious. Yet, it doesn't satisfy us completely; for it doesn't tell us, why shoemakers could be utterly destitute in a world-famous footwear cluster. To understand why power relations in this informal market are the way they are, we need to understand where these power relations come from. An excavation into the history of this market is in order.

5. Construction of the Industry and Historical Roots of Power Difference

In the following section, I present a historical discourse to understand the path dependency of Agra's industrial trajectory as regards footwear cluster and how did history shape its present contours.

At the outset however, it is pertinent to explain very briefly, the primary principle over which occupational segregation in India has always rested, for this becomes the central theme throughout the narrative. Hinduism, the dominant religion in India (and also Agra) has been divided into four castes. The hierarchical categorization puts *Brahmins*, the priests, at the top. Next comes *Kshatriyas,* the soldiers and *Vaishyas,* the businessmen/traders. Finally at the bottom, come the *shudras*, the untouchables – those who perform menial jobs, like cleaning, sweeping, animal husbandry, handling the corpses and the like. These four *varnas* are further divided into several sub-castes, mostly segregated into occupational lines. Owing to the caste system in prevailing Hinduism, work on dead animal's hides or leather is considered highly polluting and therefore forbidden to upper castes (Khare, 1984). Hence, leather products were largely made at household levels by Muslims and a particular sub-caste of *shudras,* called the *chamars* or the *Jatavs*.[29] Only those born as *chamars* 'can occupy the status of shoemaker without breaking caste rules.'[30] With this as the backdrop, we begin excavating the path on which Agra's cluster is dependent today.

5.1. Artisanship and Informal Credit: General Conditions in Mughal North India

Two facts considered settled to some extent guide us a great deal in understanding why Indian manufacturing has had an affinity for household artisanship rather than industrial enterprises:

a. India has been primitively household manufacturing society with little technological advancement (at least during and post Mughals) and this is indicated in consistent observations of almost all European travellers – who were no strangers to poverty from their homeland experiences – of the abject poverty in India[31] with little zeal for luxurious items. One could argue that scantiness of clothing and lack of furniture and utensils may only indicate social patterns of consumption rather than signs of misery; yet it still reflects the lack of mass demand in economy for large number of non-agricultural goods (for instance household furniture, utensils, cloth, writing material, perfumes, jewellery and leather products like shoes).[32]
b. There was a high degree of occupational segregation on hereditary (caste) basis. Artisan castes proliferated and their specificities forbade organizational diversity and social mobility, thus limiting the manufacturing base of society generally.[33] Such suppression of artisans in caste-hierarchical tyranny,[34] coupled with different kinds of duties (like *sa'ir*) for manufacturing[35] and charging 12% commission on advances by middlemen[36] only show how an 'artisan-entrepreneur is an unlikely, and at best, a very exceptional product of such a society.'[37]

This naturally sustained very primitive forms of organisations – household manufacturing units.[38] Accounts from early to late colonial period often refer to continuation of the household units of manufacturing with roles delineated for men, women and children in the households.[39] Lack of demand and tiny units of production due to hereditarily restrictive forms of manufacturing are expected to create two interesting features of the market: a very low level of innovation in manufacturing, and very poor artisans.[40]

The data on artisans' income is scanty, but with certainty, one can assume that the concept of mercantile profits that led to upward mobility of artisans in Europe was virtually absent in India.[41] Artisans' remuneration was low, and their savings were small mainly geared for hand-to-mouth existence.[42] There will be little doubts for the consequent indifference towards innovation in Indian manufacturing sector. Indeed, the ratio of labour to capital was one of the highest in India.[43] Indian artisans have been consistently observed to be labour-driven with little technological assistance.[44] Even though there was some level of mechanization in manufacture of cannons and heavy guns[45] and advancement in imitative innovation limited to only few products.[46] This led to very cheap and subsistence labour, which, with traditional concerns associated with risk, rendered little incentives to innovate,[47] and thus, whatever technology existed, was surprisingly simple. Part of the reason was also adherence to customary forms of manufacture.[48] Naturally, while this produced high quality of ingenuity in artisans' labour, it crushed them financially. Such state of economy remained the same definitely until nineteenth century.[49]

Organizationally, perhaps a tiny exception is that of imperial *karkhanas* that employed wide variety of artisans on regular wage basis were exceptionally created primarily to cater to needs of court and the army.[50] But note that firstly they were rare, and secondly, they did not emerge to exploit economies of scale or brought any technological innovation; rather they were peripheral organisations springing to address imperial demand.

One can be suspicious of imagining artisan poverty in notable art-patrons like Mughals. This is reconciled through accepting that royalty cannot create demand for the entire supply. Majority of masses were poor, and there is considerable evidence to show that there were indeed high levels of inequality (definitely hinged on castes, inter alia) even in the flourishing reign of Akbar. It was visible in the lack of proper clothing and barefoot village folks who belonged to lower strata of society.[51] The taste for shoes prevalent only in upper segment of society is recorded.[52] Poor had small, mad-straw huts, with little furniture beyond cots and bamboo mats.[53] On the other side, records show ostentatious and luxurious lifestyle of rich nobles.[54] Urban areas like Agra, have been noted to have a 'man of quality' accompanied by several attendants, pages and slaves.[55] And yet in the same city, thatched hut for an urban wage earner was common.[56] The overall poverty levels only increased in latter years. This is evident in falling purchasing power estimates of lower wage in Agra – except sugarcane, purchasing power index of almost all food items had fallen by almost 40% between 1595 and 1895 (the index rose for clothing however).[57]

It is for the dismal economic situations that that debt and interest payment has never been new to the region.[58] Specialized caste groups – usually called *sarrafs* – had overwhelmingly emerged by eighteenth century in north India, including Agra, who operated in credit. Financial activities had taken up a new role distinct from mercantile ones. These merchant houses were pioneers in the credit institution what is even today, called as *hundi*, or a bill of exchange promising payment after specified period at a specific place, after adjusting the discount of interest, insurance (*bima*), and cost of money transmission.[59] So high was the influence of these *hundi* type transactions by nineteenth century that economic historians have often separated the two major sectors of Indian money market: the first consisting of organized sector (three Presidency Banks of Bombay, Bengal and Madras; foreign owned exchange banks; Indian joint stock banks), and the unorganized non-institutional credit agencies like informal moneylenders and the like.[60] Anyway, a rudimentary system of deposit banking had started, with *sarrafs*, accepting deposits (*amaanat*) payable on demand, with an interest, and in turn, lending it at high interest rates to 'persons of qualletie'.[61] Records suggest that interest rate on deposits in Agra region during 1645 was 7.5% per annum,[62] thus indicating that financial institutions were definitely not alien to merchants and artisans in the city. It is also noteworthy that as early as seventeenth century, institution of 'avog' or bottomry was prevalent in the region too, in which money was lent at very high interest rates, ranging from 14% to 60% depending upon the risks involved.[63] The interest rates as a reflection of credit capacity of the borrower was a concept well developed in Agra before Mughal decline. Interestingly, even though usury was prohibited in Islam, not only were there ample instances of Muslims involved in moneylending,[64] but also the state's involvement in credit machinery of merchants was negligible.[65] This is perhaps due to the fact the system had self-enforcing institutions which were driven by informal norms rather than the need for state support. Credit offering was solely dependent on credit worthiness of borrower, which was an idiosyncratic knowledge,[66] and hence, sanctions (built on social boycott) obviated the need for a legal system.[67] Indeed, the British who came with their elaborate legal structure of contract found this system fairly adequate.[68] Although at the same time, English institutions of private property, civil courts and contracts enabled the moneylenders to appropriate peasants' (and no reason to believe not of artisans) profits or assets, thereby incentivizing offering of loans.[69]

It is in this backdrop that we need to understand genesis of leather footwear cluster in Agra. With no incentives to innovate and remaining perennially under the burden of castes, the household units were the only viable economic units. Over time, this cluster became fossilized.

5.2. Birth of Leather Footwear Cluster in Agra

There is little reason to believe that atleast until Mughals arrived, leather footwear making was an important business in north India. Records indicate that India, due to its dominant belief in Hinduism and its variants, has been a rather footwear-unfriendly culture.[70] Indeed, leather being proscribed for high caste Hindus, leather shoes were hardly the preference. Shoes/sandals in India, commonly known as *paduka* (name for small foot), were made of metal, wood, plant fibers etc.[71] It was only by fourth century that leather and animal skin's soles started to be used by Hindus. They were called as *chappal*, where a leather sole was connected to the foot through a strap (which is still in use today). Hinduism considers footwear as impure and it is not uncommon to take them off before entering houses and temples in India (this was common in Greece and during ancient Roman time too[72]). Also, many pilgrim voyages are done barefoot.[73] Hindu customs also consider barefoot, a sign of humility, and also due to weather conditions, for a large part of its history, many people simply went barefoot in India.[74]

While Lahore was famous for boots and shoes earlier,[75] leather industry underwent a significant expansion during Mughal era with Agra (and Cawnpore) emerging as the primary centre for this trade.[76]

Agra being the capital of Mughals, who were not only great connoisseurs of art, craftsmanship and embroidery on clothes and footwear must have been immediately attempted to create a resource for production of footwear for ornate taste. There may be a possibility that Agra attracted this through some sort of the above-alluded imperial factory (*karkhana*) or through an understanding of a need for encouraging this form of artisanship. But more important was Akbar's (1542-1605) demand for leather shoes for his army. Very little is known about the footwear of the armies of Delhi Sultanate, but surely, Akbar had a penchant for his infantry to wear leather. Indirect references to this may be found in disparate sources. For example, William Irvine (1903) mentions that even though Mughal army consisted of cavalry, infantry and artillery, they greatly preferred cavalry to other two divisions.[77] While cavalry requires nimble shoes, the importance of infantry is seen to be increased in their army in later years.[78] More importantly, the use of leather definitely expanded for making various kinds of sheaths and other protecting equipment in Mughal armour.[79] As innovators in warfare, we imagine Mughals – and in particular Akbar – to increase impetus to build leather footwear. Anecdotal accounts from several of my interviewees who had been manufacturing leather footwear since generations have always attributed the rise of footwear production in Agra to Akbar. Indeed Mughal Agra was one of the most important centres of trade and manufacturing, a commercial centre for major trade routes in the empire, which included and not limited to silk, indigo, saltpeter, textiles, dyeing and metals,[80] and made a fine target for patronizing shoemaking.

But why could this happen so swiftly in Agra? The primary reason could be attributed to its caste demography. The *chamars'* population as a percentage of total population in the city has historically been fairly high, and for most part of history, the highest.[81] Population registers corroborate these figures. Of one of the earliest figures that categorizes the population caste-wise in 1908, Imperial Gazetteer of British India published that 86% of population was Hindu and 12% Muslim.[82] Further, it noted that: "*Most numerous caste is that of Chamārs (leather workers and labourers), 175,000. Next come Brāhmans, 110,000; Rājputs, 89,000; Jāts, 69,000; Baniās, 65,000; Kāchhīs (cultivators), 53,000; and Koris (weavers), 32,000. Gadariās (shepherds), Ahīrs (cowherds), Gūjars (graziers), Lodhas (cultivtors), and Mallāhs (boatmen and fishermen) each number from 30,000 to 20,000…*"[83] One may wonder as to how can a figure of 1908 be used to explain something that happened a quarter millennium ago. With the lack of reliable data prior to this, we can deduce the population of *chamars* synchronizing temporally because (a) Agra region during Akbar's rule was much larger than the district Agra we now know of (Akbar's Agra measured 175 by 100 *kos,*[84] where 1 *kos* may refer to little over 2 miles) stretching from Palwal to Cawnpore, and Kanauj to Gwalior state, and (b) lack of any specific records that show caste based migration taking place in Agra. Taken together, the likelihood that *chamars* were mostly from the same region historically can be assumed without making gross error in judgment. And indeed, excavating migration history in the region, one only finds emigration from famine-struck Agra, rather than immigration. At best, Akbar's interest may have perhaps brought many *chamars* together in similar region of Agra.

It is unclear however, whether footwear was dominant industry in Agra, despite a huge *chamar* population. The Imperial Gazetteer of India 1909 says, "*About 48 per cent. of population are supported by agriculture, 10 per cent. by general labour, and 8 per cent. by personal services. Rājputs, Brāhmans, Baniās, Jāts, and Kāyasthas are the principal landholders, and Brāhmans, Rājputs, Jāts, and Chamārs the principal cultivators.*"[85] The Gazetteer does not mention of what was the occupation of 35% of the population, which could or could not have been footwear. However, records indicate, almost conclusively that (a) the line of demarcation between agricultural and manufacturing was not always clear,[86] (b) bulk of artisans came from rural areas, and (c) production of manufactured goods by peasants was for their own consumption, traditionally.[87] This means that the possibility that *chamars* were involved in agriculture and would make a few leather shoes alongside cannot be ruled out.

5.3. After the Mughals

This backdrop builds a sharp image of what may have happened once Mughal decline and British eminence may have shook the nation. Mughal records on Agra, which were rich and elaborate owing to texts like Ain-a-Akbari, Baburnama and accounts of many travelers during that era, dwindled once their empire declined. Reliable sources after that are the Imperial Gazetteer of India records, from early twentieth century. Yet, historians have attempted to excavate the silences in intervening period in the region.[88] Eighteenth century Agra had weakened in its importance, and was ruled by Jats, Rajputs, Pathans and Marathas in different periods of the time. In 1803, along with Delhi, it was conquered by British and named the capital of 'Ceded and Conquered Provinces.' In 1835, British established 'Presidency of Agra.' This period has interesting, yet overlooked implications in Agra's poor treatment of informal leather footwear household units. As one would expect, the cluster diffused and trade dwindled.

Even though there are frequent instances that Maratha princes used to visit bazaars of Agra frequently,[89] there is little in form of imperial patronage that they have been noted to be offering to footwear artisans. We may expect that their presence should have led to some decline of leather footwear industry if not significant. The real significant events were natural. For instance, devastating famine in 1783 (called as *chalisa* famine) killed approximately 60% of the population of middle Doab villages (Agra division's location) and 30% of Delhi's.[90] Years 1803–1804, 1813–14, 1819, 1925–26, 1827–28, and 1832–33 witnessed scarcity at general level.[91] And two years after Presidency of Agra had been established, Agra and central Doab witnessed another severe famine (called as *chauranvee* or sometimes, simply, Agra famine), depopulating the region by 800,000.[92] Between 1815 and 1838, Agra had lost up to one-third of its population.[93] Before Agra had enough time to regain normalcy, it suffered from the third famine in 1860, consuming 2 million lives.[94] These famines devastated the region and had significant negative impact on lower caste of the society – who were predominantly peasants or artisans – and Muslims[95].

In addition, due to impoverishment resulting from the famines, crime levels increased. Records show that between 1783 and 1805, instances of violence and robbery on the roads of the Delhi-Agra region reached their peak, and led to a further decline of agriculture and trade.[96] Infact, even before the 1837-38 famine, there had been a considerable fall off in petty traffic that largely reflected decline in small merchants' share in commercial growth of the region.[97] Footwear industry in Agra became a much smaller and highly localized market. Famines also led to hoarding and looting bands in the region,[98] giving little incentive for creating inventory. The ravages of famines did not let the district regain its population at 1871 until early twentieth century.[99]

The unfriendly nineteenth century suppressed the leather footwear industry to a great extent. The chapter on Agra, in *Imperial Gazetteer of India*, volume 5 mentions different kinds of trade goods that came from Agra, but there is not one mention of leather.[100] The volume also mentions however, that Agra had a surprisingly high level of literacy in that period,[101] which might signify that demand for artisanship may have been high, thus ensuring that cluster did not close down. Shoemakers (like many other artisans), find mention in the Gazetteer, and even at the turn of twentieth century, the Indian artisans' love for handicraft processes over technological intervention is predominant.[102] The urban space clustered by these artisans hadn't changed either.[103]

The atomized sizes of household enterprises and dismally low levels of organizational or technological advancement was a necessity now. Indian manufacturing generally had been far from anything close to industrial revolution that Europe saw during the same time, and leather footwear was a classic example of the indifference to labor-saving devices. This is also the reason why even though India has been one of the world's largest sources of skin and hides, the region has remained almost entirely a handicraft producer of leather goods through history, and exporter of semi-finished products.[104] There was a government factory opened in 1860, in Cawnpore, which followed some small European owned factories; yet they sprung as a response to official or military demand.[105] Even as late as 1914, the leather sector employed merely 7,800 people in such organizations, and India was still importing huge quantity (2 million) of leather footwear.[106] This was not enough and balance was catered through artisans employing handicraft processes.

5.4. Colonial Era

The footwear industry got its much needed demand infusion from British. The cantonment located at Agra (1805) boosted the demand for shoes, saddlery and harness and reliance was on local tanners.[107] Even though we are aware of declining demand for more traditional leather products like saddles, bags and jars tended to disappear by early twentieth century,[108] the demand for leather footwear rose significantly in nineteenth century.[109] In particular between 1835 and 1868, when Agra was the capital of North Western Province, British pushed the demand for *boots*, their repair and manufacture.[110] Unable to arrange for alternative sources of leather and leather products from England due to irregular supply and inferior quality,[111] the British would bring with their troops, many English shoemakers who would lend their style and design technologies to local artisans. This enhanced the skill-set of local population of Jatavs and footwear business became lucrative.[112] Indeed, to argue that British brought significant modernization of the industry would not be entirely incorrect.[113] English-style shoes replaced the traditional manufacturing techniques.[114] The specialization extended through training family members, and hiring apprentices from same castes.

Even after devastating famines, Agra had shown remarkable signs of recovery. For instance, in 1839-40, the harvest is noted be fairly good, only 30% less than the pre-1837-famine levels.[115] Bazaars had been bustling behind 'the decaying palaces.'[116] Even though there are instances of artisans and craftsmen moving to different places to secure their livelihood[117] Agra's flourishing remnants of Mughal's grandeur continued for some time,[118] with little doubt that *chamars* as lower castes would not have migrated in large numbers for lack of prospects anywhere else anyway.[119] In fact, records do indicate growth in Agra's population during nineteenth century.[120] Occupational artisanship strictly divided on caste lines continued through the colonial period as well.[121] However, evidence exist that cheap labour and consistent supply to satisfy demand peaks may have attracted merchant class – with aid of Europeans – to develop few organisations which employed large number of artisans as wage labourers.[122] This was largely European innovation brought to India, and the need, again, was not to extract economies of scale, but to serve regularity of supply and to bind up producers to limit competition from other buyers.[123] Yet, the institutional inertia ensured that primacy of household units remain. The artisans would occupy specific localities and work used to happen in clusters of neighbourhood – something we still see today.

In any case, by late nineteenth century, trade in leather and skin in India had become an important source of revenue.[124] The famines at that time had one beneficial effect after all – the cattle that died became source for new hide, which increased its supply.[125] Between 1876 and 1904, the total value of import and export of hides and leather went from 3 crores to 10 crore rupees.[126] Import of boots and shoes increased from 11.6 lakh to 27.9 lakh rupees in the same period.[127] The development of curing, tanning and currying of leather in India is also not without reasons: India possessed naturally tanning materials such as acacia pods and bark, cutch, Indian sumach, tanner's cassia, mangroves, myrabolams and others.[128] This is also the time when export of boots and shoes started – mainly to Natal, Cape Colony, Mauritius and Egypt – with export value doubling from 3.5 lakh to 6 lakh rupees between 1899 and 1904.[129] Even when demand for leather buckets went down (with cheapening of brass and emergence of new materials like aluminium), the demand for leather footwear increased,[130] which was sure to benefit Agra.

At around the same time, first central shoe market was set up in *Hing ki Mandi*,[131] which facilitated the trade immensely, allowing wholesale traders to sit at one place where both manufacturers and other merchants could come directly.[132] Shoemakers would buy leather in open market, make shoes and go to specific *mandis* (markets or local bazaars). The lack of proper intercity transport during nineteenth century compelled the production to remain oriented towards local demand, and even if there was little travel involved, it was definitely not in bulk.[133] Artisans around the region have known to be disposing off their produce in periodic markets (*haths*) and *qasbas*, where they were wholsesaled.[134] In Agra, these bazaars would have certain trading community, called *adhatiya,* loosely translating into wholesale dealer. These *adhatiya* would buy all the goods brought by a certain shoemaker, sell it off and charge a commission for themselves. My interviews with some families who have been in this trade for around a century suggest that the value of commission would be 1.56% of total value. This was fixed, and did not depend upon volume. The commission essentially acted as service charge of the *adhatiyas,* who would free the shoemakers of their efforts to sell, enabling them to concentrate on making shoes. This was highly localized affair. Shoemakers had very few markets, and due to lack of such open markets with *adhatiyas,* they would usually have little incentive to expand their production or invest more time. Shoe merchants from many parts of north India would come to Agra to place orders. Agra became an important centre for English style men's shoes during the period between the two World Wars and by the time India became independent its products were being exported to Iran, Iraq and East Indies.[135] The prolific shoe business had robust backward linkages as well. The tanneries were concentrated in Madras[136] and Cawnpore.[137]

A close look at cluster markets during Mughal and colonial India convinces us the importance of market networks and inter-linkages.[138] The interlocking networks were not just local but also spanned across markets in long distance trade. Indeed, clusters are historically embedded in kinship and caste ties, with permanent bazaars and periodic markets, as was the case in India throughout history.[139] This characteristic has continued since – what we see today are not remnants but solid structures of networks built on historical institutions that form the backbone of Indian markets, and definitely in Agra. Throughout the nineteenth century, there was little change in the construction of household units as multimodal manufacturing entity, just as the usage of traditional and customary styles to make leather footwear, devoid of any technological innovation[140] – however, finesse had improved and so had the volume of work.

There are reasons to believe that moneylending in Agra markets may have become usurious during this period and may have continued until partition. Even when the Central Banking Enquiry Committee (1929) estimated that unorganized Indian money market financed around 90% of total internal trade of the country,[141] the annals of nineteenth century economic history have no mention of Agra's credit market or *hundi* transactions, which had frequent references in Mughal-period history literature. The main places for informal credit now were towns like Madras, Surat, Patna, Benarus and generally Bengal.[142]

Overall, the pre-partition twentieth century seems to have been better for leather footwear than the preceding one. Specific information about income and productivity trends of leather shoemakers during late nineteenth and twentieth century (pre-partition) does not exist, but if data on small-scale industries is any proxy (the reliability of the proximity of small-scale and leather footwear must be assumed cautiously though), then the growth of real output of small-scale industries as a sector increased by 55% during first half of twentieth century.[143] Yet, more importantly, while the small scale-sector was larger than its large-scale counterpart at the turn of the century (more than five times large-scale), it had declined significantly in relative terms by the time of partition.[144]

5.5. Post-Independence

An institutional shift took place during the period of partition-induced-migration while India gained its independence. In 1947, the country was divided into India and Pakistan. The communal riots-toll that followed saw one of the largest mass migrations in the history of the world. Hindu Punjabis migrated to India, while many Muslims moved to Pakistan – overall, estimates suggest that about 14.5 million people were uprooted.[145] Many of these Punjabis came and settled down in various cities of north India, notably in Delhi.[146] Many others settled in Agra, which is 200 km south of Delhi.

As mentioned, until then, the business was dominated by Muslims and *chamars.* Muslims have been known to dominate the commerce of northern India as late as until early twentieth century.[147] These Muslims had developed tiny organizations with several artisans working under them in leather footwear making. Historical evidence has conclusively shown the high level of indebtedness (surely in rural areas).[148] But most of the affluent Muslims left for Pakistan and Agra's shoe industry began deteriorating.[149] This is all the more convincing when we learn that (a) most artisans were rural based, and (b) there was nontrivial (horizontal) occupational mobility between artisanship and agriculture.[150] These ideas coupled together lead us to believe the destitute conditions of leather footwear artisans must have been in, in Agra region, right after partition. It has also been deduced through noticing the the fall of real wages in cities of north India, including Agra.[151] Statistics informing us on how leather shoemakers may have left the industry is glaring. Between 1911 and 1951, total number of people employed in leather and leather products industry declined by almost 47%, half of which took place between 1931 and 1951.[152] Indeed, by 1951, little technological advancement could have been implemented to replace workers from the market, thus signifying that decline was largely attributed to exodus of shoemakers to other areas – perhaps because the Muslim merchants (who acted as employers of many workers) left for Pakistan giving them little incentives to stay back.

When Punjabis arrived in Agra, they noticed the skills of *chamars* and poor Muslim shoemakers. They also noticed that (a) there was a lack of market connectivity, and shoemakers had tough time finding customers since they could not travel far owing to fears of robbery and inhospitable transport conditions, (b) the shoemakers themselves were shoe sellers, and selling came at the opportunity cost of making, and (c) shoemaking was done in household manner, without any exploitation of economies of scale.

Punjabis are usually Hindus or Sikhs. Sikhism is the fifth largest organized (yet clergy-less) religion in the world, founded during 15th century by saint Guru Nanak, who was son of Hindu parents. Since they believe in equality of all human beings, unlike orthodox Hinduism, occupational segregation doesn't exist in their cultures,. Many Hindu Punjabis are also influenced by this philosophy. And therefore, working on/for leather was not a taboo within Punjabi community as it used to be within traditional Hindu upper castes. In addition, the migrant community was badly in need of a sustainable income, and potential of footwear trading in Agra caught their attention. They slowly began occupying the position of wholesale dealers of leather footwear.

Before the partition, the relation between Muslim distributors and *chamar* producers was 'smooth' and amicable.[153] The former would purchase shoes in cash and also give favourable loans to Jatavs. All this changed when Punjabis replaced Muslims after the partition. Punjabis' approach was much harsher and more antagonistic towards *chamar* artisans.[154] In the beginning, the Punjabis began working as middlemen, just like *adhatiyas.* They were hard working population, and closely connected. They applied their business acumen and realized that these shoes can be sold in places relatively farther off. The innovation they brought to the market was that of credit supply.

They proposed to the shoemakers that they would be able to lift their goods and sell them off to places outside conventional markets, and for a much better price. The condition however was that the shoemakers would have to sell their shoes to the Punjabi traders on credit. In other words, while the shoemaker would get more money, the payment will not be made upfront. Shoemakers liked the idea. The Punjabi traders would take the goods, sell them off in markets outside Agra, return with the money, give the shoemakers their due and keep the rest for themselves. The only difficulty was to remain penny-less for the first round of the cycle. Once the second round begins, cash never gets depleted if Punjabis are able to sell off the products. Indeed, this is what happened. Punjabis, over time, expanded the markets. And the institution of credit was established. The difference however was, the shoemaker had no idea of the price the shoes were being sold at. They were content as long as they got their payment in time.

Over time, Punjabi traders became affluent and their reach began increasing. Starting from markets close to Agra, they would supply to cities far flung like Bombay, Indore, Guwahati and Madras. The credit system trapped the artisans, whose economic trajectory suffered a major fall after independence, given their unorganised existence and lack of economies of scale. The trade credit was an extremely beneficial for the traders who could transfer the risk at no cost to the shoemakers. Slowly the market evolved middlemen (*adhatiyas* – different from the ones they had earlier) who began trading in the credit notes, because shoemakers would be in bad need of money). It appears that over time, the traders in Agra began forwarding the credit to their customers (traders in other cities or the retailers), thereby necessitating the need for credit, which became institutionally sticky. While this may be true, my interviews with old artisans involved through several generations in shoemaking business suggest that the *adhatiya* would not be anyone else other than the trader's family member himself. This ensured that the credit and cash remained within the family itself. Over time, the elites (traders) made all efforts to retain the status quo since it suited their business interests. The institution got fossilized in history.

Until 1960s, production used to take place exclusively in household units, where self-employed *chamars* would manufacture shoes with the help of family members and sell the products to (mostly Punjabi) traders.[155] Either they would manufacture shoes and go out to sell them, or the trader would place an order for specific shoe-type and quantity and they would manufacture those shoes in given timeline.[156] These two systems still exist. There were few organized factories, which worked exclusively by the second system for major traders in Delhi. Only since 1970s, more workshops and small-scale factories emerged which employed Jatav artisans, which by 1990s, were all owned by non-Jatavs.[157] From then on, organizational structure of the industry has remained pretty similar. The earlier exporting destination was usually Soviet Union,[158] and not Europe because latter emphasized on specific technical requirements but became weary of Agra's low standards of production.[159] However, after the fall of USSR in 1989, export houses began searching for new countries. They refined their manufacturing setups and ensured that quality was maintained to keep the specifications of European adhered.[160] Today, most export reaches Europe indeed.[161]

In extensive surveys of early 1990s, Knorringa (1996) has found that organizational structure of Agra's shoe industry has remained unchanged at fundamental level. More than two-thirds of manufacturing units in Agra are located in Jatav-dominated localities. According to his estimates, '… some 50,000 to 60,000 production workers, employed in around 4,000 to 5,000 mostly informal small-scale manufacturing units would produce approximately 300,000 pairs of shoes.'[162] These have indeed increased in last two decades.

Little has changed today in terms of exploitation of shoemakers.[163] Like many south-Asian craft-based industries, Agra footwear industry is characterized by a caste-fossilization between artisans (belonging to Jatav caste or Muslims) who make the shoes and traders' communities (belonging to Punjabis, largely).[164] Punjabi communities own most major organized enterprises, as they do most of wholesale units in Hing Ki Mandi. Lured by high values of profit margins, traditional Hindus and others have also joined the trade. Few owners are Muslims. Occasionally, one would come across a Jatav as the owner of a manufacturing set up, but most of them are unorganized set ups. And more than ninety percent[165] of shoemakers in informal sector, as well as labourers working in shoe factories, are Jatavs or Muslims, with former outnumbering the latter by huge account. For Agra Jatavs, footwear is not simply an occupation for livelihood, but, '..it is a family affair and a way of life.'[166]

6. Discussion and Conclusion

Where do we arrive in our narrative now and what sense does it put in the contemporary picture of footwear artisans in Agra? Lack of demand for non-agricultural goods (either due to prevailing poverty or social preferences), coupled with rigid and hereditary occupational structures of artisans gave rise to household units of manufacture with no incentives to innovate technologically or organisationally, in (definitely) north Indian towns. Therefore, even when moderately spurred by imperial demand and source of high number of *chamars*, Agra's emergence as leather footwear cluster during Akbar's reign did little to help the cluster develop economies of scale. Decline of Mughals coupled with devastating famines brought the industry to dormancy, until when British infused it with some energy by late nineteenth century. However, partition led to exodus of Muslim merchants, who were replaced by leather-tolerant Punjabis from Pakistan. They re-developed the idea of credit, and began building enterprises, given the city's ample *chamar* population which had no organisational foresight left.

Observing how artisans across history had been at the lower end of bargaining spectrum, makes us see how institutional inertia of power difference has simply carried itself further. No period in history suggests any comforting period for artisans, and definitely not for lower caste artisans. To what extent has history's ill-treatment of these groups is determined by sociology of caste or economics of market demand is a question we still cannot be conclusive about. But clearly, markets alone cannot answer the locked in exploitative phenomenon that is seen in trade credit in Agra.

The preceding discussion makes it amply clear that trade credit could very well be determined by path dependent inefficient institutions emerging from bargaining power differences between the transacting parties. They may totally not make any business sense, and overall welfare may decrease; yet they exist simply because they have existed. Path dependency of institutions is captured extensively in academic literature. Triggered by David (1985), influential work of Arthur (1986) and later by Pierson (2000) provides illustrative guidelines. Its application in explaining why inefficient institutions are not weeded out by their formal replacements is articulated by North (1990), Kuran (1987) and Acemoglu and Robinson (2007). Indeed, elites (traders here) serve their own self-interests solely and in doing so, they create institutions that work towards detriment of the masses (Engerman and Sokoloff, 1997). Research has shown how incumbent elites often benefit both economically and politically, from the institutional status quo (Johnson, 2009). This is exactly what helped sustaining the trade credit institution in Agra's footwear industry. Features of informal credit institutions have largely been unexplored. There is a need to reconfigure western models of financial relationships and look closer into the social dynamics of economics.

Neither do trade credit in Agra footwear market emerges to increase the Pareto state of transacting parties, nor does it aid to the relationship contracting that is the norm of the informal markets in developing countries. It is exploitative to the extent that the credit is sold at a discount rather than interest. Unless the power relations are evened out, the structure is expected to prevail. Infact, state government's efforts to establish an 'artisan-specific' market in Agra, where artisans will be given space to sell their products directly to consumers was thwarted by the traders' associations.[167] Agra footwear industry provides a glaring instance of how trade credit institutions need to be viewed in alternative light. This alternative light needs to beam out of sympathy for history and sociology in understanding economic institutions.

ENDNOTES

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4 Data collected from Council of Leather Exports, Ministry of Commerce and Industry, Government of India. Available at www.leatherindia.org last accessed on 25 June 2013.

5 Sumandara Damodaran and Pallavi Mansingh (2008) "Leather Industry in India," *Working Paper,* Centre for Education and Communication

6 See, http://www.leatherindia.org/products/footwear.asp last accessed 3 October 2013.

7 Damodaran and Mansingh (2008), supra.

8 Ibid.

9 R.R. Prasad (1986), *Change and Continuity among the scheduled caste leather workers,* National Institute of Rural Development, Hyderabad

10 S. R. Hashim, M.R. Murthy and Satyaki Roy, 2010. "SME clusters in India: Identifying Areas for Intervention for Inclusive Growth," ISID (pp. 74), available at http://planningcommission.nic.in/reports/sereport/ser/ser_sme1910.pdf last accessed on 25 June 2015.

11 Damodaran and Mansingh (2008), supra

12 NSS 2004-05. The national figure is 395 per 1000 people. The sex ratio in Agra is 854 females to 1000 males (Census of India 2011).

13 NSS [1]

14 Pragya Singh (2007) "India's New Entrepreneurs," *LiveMint,* 16 May. Available at http://www.livemint.com/Companies/kt9jFMMp4Z5IsgcFCNjcKM/Indias-new-Entrepreneurs.html last accessed on 6 June 2013.

15 Agra has several of these markets, some of them ingenious. *Petha* is an Indian sweet dish, and almost entirely a product of Agra. Made of ash gourd vegetable, the small-scale industry's impact can be seen in every railway station and bus stands in the city. Other eatables are *gazak, dalmonth*, again employing several thousands of people in the city. Certain markets with hundreds of shops and units run only on these eatables. *Kinari Bazaar* is the central market of jewelery and garment shops, *Fuvvara* is the node of medicines in the city, *Shah market* concerns with hundreds of electronic items' shops and *Fatehabad road* is the central pool of marble and stone carving work.

16 Damodaran and Mansingh (2008), supra

17 The names of these *bastis* is available in the government's office, also available with the author.

18 This is also corroborated in Damodaran and Mansingh (2008), supra

19 These details have emerged from my primary survey.

20 Amongst those who exist on government records are the organised players: *Small Players*, who employ less than a fixed number of labourers (usually 100) and therefore do not come under the purview of any labour law, yet have registration number, pay taxes (after whatever avoidance) and

exist on government documents; *Big Players,* who employ large number of workers, follow the labour and industrial laws (at least on paper), and are largely export oriented. There are close to hundred big players' units in and around Agra, generating significant revenue.

[21] The Jatav artisans could also be employed, and are hired as labourers, working with the organized manufacturers, either the big players or small players. They are paid on their work, either per pair, or daily wage. The big players are supposed to give the artisans, minimum wages as per law, but my fieldwork suggested that they get it only on paper. In reality, market sets out their wages and they receive nothing more. Yet, at big player's factories, they are permanently employed. At the units of small players, they are paid meager wages, but the jobs are not permanent. A favourite tale of owners of organized unit is that 'we are fed up of the workers shirking their work, even when there is enough work in the factory.'

[22] It appears that the retailer has the highest bargaining power and can compel his suppliers to maintain outstandings at his whims. He, however, bears a high risk. The cost of inventory is very high, and retailer needs to ensure several designs of several sizes in his shop. My preliminary estimate suggests that sale of shoe sizes in India follow a normal distribution curve, where the sale of size number 7 lies at the normal. Yet, the retailer needs to have sizes ranging from 5 to 12, and that of several designs. Many of these pairs lie in his inventory stock for long periods of time. Secondly, he is also not well aware as to whether the new kind of designs will be successful with the customers. He is at the final end of distribution pipe and has direct links with those who have cash in the pockets – customers. His fancies are of utmost importance to the entire industry. He calls shots as regards price of a pair. My interviews suggest that retailers load up a margin of not less than 500% when they sell the shoes.

[23] To illustrate, consider I go to trader A with my shoes. He values them at Rs. 5000 and signs me a parchi mentioning that he owes me Rs. 5000, which will be paid exactly three months from now. I am in need of cash and go out looking for those who may purchase A's parchi. I come across B who is willing to do so. He buys this parchi, at an interest rate of 2% (let's say), (it is the interest rate for B and discount rate for me – essentially means the same thing). Hence, he takes the parchi and hands over Rs. 4900. I collect the cash and purchase necessary items for next day's produce, in addition to family groceries. After three months, B goes to A and collects Rs. 5000 upon showing him the parchi. Overall, in this entire transaction, I earn Rs. 4900 instantly, A earns his credit for three months and B earns Rs. 100 on interest. In this way, parchi system institutionally creates liquidity in the market. The system resembles the emergence of commercial paper in history. Parchis are the pivot over which a parallel banking system of enormous industry of footwear in Agra rotates.

[24] I have been told that the scrupulousness with which payment is followed in the market is so high that if a dog shows up on the day of payment with parchi in its mouth, the trader will take the parchi and thrust the cash in dog's mouth.

[25] See for example on credit rationing, Stiglitz and Weiss, 1981 who show why it makes sense for the bank to ration credit and not raise interest rates indefinitely. They propose that credit rationing helps banks avoid adverse selection problem.

[26] It needs be mentioned that the entire market is almost 100% dominated by men, and in my fieldwork, I did not come across a single woman. Indeed, the workers who make shoes in unorganized sector have their wives and girl-children working with them, but that is not the case with most factories. Infact, I was told that many times, factory owners do not want to keep women employees lest there are problems related to sexual harassment.

[27] These were the figures during first quarter of financial year 2012-13. Also note that A third and relevant loan scheme is a specific intervention by the Reserve Bank of India, called Differential Rate of Interest (DRI) scheme, which was introduced to enable financial inclusion of weaker sections of society. According to this scheme, people who have annual income of less than Rs. 35,000 are eligible for loans upto Rs. 25,000 at 4% annual interest rate. For unorganized shoemaker, it is unclear whether DRI scheme would work or not since many may have incomes higher than Rs. 35,000 per annum. Regardless of whether they are eligible for it or not, they are definitely eligible for working capital loans, interest on which varies between 11.5% and 12.5% per annum.

[28] I learned this by going through few shoemakers, their finances of last few weeks during my fieldwork.

[29] Leather in Hindi, is called *chamra* (pronounced as *chamda*) that ha origins in Sanskrit, *charma* meaning skin. Hence the name of the sub-caste, *chamar.*

[30] Lynch, O. M. (1969). *The politics of untouchability: social mobility and social change in a city of India* (pp. 111-28). New York: Columbia University Press.
[31] Raychoudhuri and Habib, 1983, supra at 262
[32] Indeed, the share of investment in manufacturing was a tiny fraction as compared to that in irrigation, road, urban housing and working capital of affluent merchants. See Ibid at 288, 295
[33] Ibid at 277-278, 285-286. For instance, Abdur-Rahim-Khan-i-Khana mentioned a list of 66 castes in his list of urban artisans.
[34] Ibid at 284
[35] ibid
[36] Ibid
[37] Ibid at 278
[38] Raychoudhuri and Habib, 1983, at 278. See also Rothermund, 2003, at 1. For excellent account of north Indian merchant families during British expansion and how the institutions of household units remained unchanged, see C.A. Bayly, 1983, *Rulers, Townsmen and Bazaars*, Cambridge University Press, at 394-426
[39] Ibid at 279
[40] Ibid at 279-282
[41] Ibid
[42] Ibid at 288-289
[43] Ibid at 288
[44] Buchanan [242], m, 41 cited in ibid at 291
[45] Ibid at 292
[46] Ibid at 293
[47] Ibid at 297
[48] During mid 18th century, Ives notes that artisans had emotional attachment with customary forms of artisanship transferred from their forefathers that little they would depart from it. See E. Ives, *A Voyage from England to India in the year 17J4,* London, 1773.
[49] Raychoudhuri and Habib, 1983, at 279
[50] Ibid at 287
[51] Raychoudhuri and Habib, 1983, supra, at 459-460. Note that the scantiness of clothing was not necessarily due to climactic condition, since at a given time, one could discern rich from poor by kind and extent of clothing they would wear. Ibid, at 460.
[52] Ibid at 265
[53] Ibid at 461
[54] Ibid at 468-471
[55] Ibid, at 463-464, citing Bernier.
[56] Ibid at 465
[57] Ibid at 464
[58] Even *Manusmriti* categorizes certain castes for who moneylending is appropriate and the limits of usury. For a detailed survey of credit institutions, see: I. Habib, 'Usury in Medieval India', *Comparative Studies in Society and History,* vi, 1964, the Hague. See also, Spengler, 'Comment on Usury in Mediaeval India',' *Comparative Studies in Society and History,* July 1964, 393-423;
[59] Raychoudhuri and Habib (1983), supra, p. 346. An interesting passage about the institution of *hundi* is described as follows: Suppose a person having paid a fixed sum at the port of Surat to a *sarraf* (banker) of that place, brings a *hundi,* which in Persian is called *sufta,* drawn by him (the *sarraf)* on his partner or agent at Ahmadabad, he may, if he chooses, collect cash, paying the deduction on account of *dnth* (conversion of bill-money into coin), or in case another person has a claim against the possessor of the bill *(hundawf)* for that sum, he may give it to that person, and free himself from that obligation. Similarly, he (the new holder of the bill) may transfer it to another, until it reaches a person against whom the drawee of the *hundarvi* has claims, and who, therefore, surrendering it to the latter, relieves himself of his debt. But cash is not used throughout. See, Al-MaqrizI, *Kitdb al-suluk,* ed. S.' Abd al-Fattah' Ashur, iv, Dar al-Kutub, Cairo (?), 1972. At i, 410-1., cited in Raychoudhuri and Habib, 1983, supra at p. 362-363
[60] Kumar and Desai, 1983, at 766-767
[61] Ibid., at p. 347. Runs on *sarrafs* were not uncommon either.

[62] Ibid. at p. 346. Cited from *The English Factories in India* (1618-69), ed. W. Foster, 13 vols., Oxford, 1906-2 7, at (1642-;), 303 and (1634-6), 169.
[63] Ibid. at p. 347
[64] Kumar and Desai, 1983, at 796
[65] Raychoudhuri and Habib, 1983, at 347
[66] I invoke the term idiosyncratic knowledge from Williamson's work, who explains it as the irreproducible knowledge generated as a means of experience rather than transfer.
[67] Raychoudhury and Habib, 1983, supra at 347
[68] Ibid. See also, Foster at 265
[69] Kumar and Desai, 1983, at 263
[70] See also, for generally reading on Indian dressing habits through history, in Emma Tarlo. Clothing Matters: Dress and Adornment in India. Chicago: University of Chicago Press, 1996
[71] See, Margo DeMello, *Feet and Footwear: A Cultural Encyclopedia,* Santa-Barbara, California: ABC, Clio, p. 171
[72] Ibid. at p. 31
[73] Ibid. at p. 34
[74] Ibid. at p. 169-170
[75] Ibid at 277
[76] Walton, H.G , Monograph on tanning and working in leather in the united provinces of Agra and Oudh, cited in Damodaran and Mansingh (2008), supra.
[77] Irvine, W. (1903). *The Army of the Indian Mughals*, Luzac & Co.: London, at 57
[78] Ibid
[79] Ibid at 67, 78, 100, 128, 151
[80] See for instance, Raychaudhuri, T., & Irfan Habib, E. (1983). *The Cambridge History of India Vol. I: c. 1220-c. 1750.*
[81] The scale of leather footwear industry could be explained largely on the basis of number of workers because even until this day, it is essentially a labour intensive industry (and not capital intensive) – shoe making pivots crucially on skills of workers more than any other factor.
[82] Imperial Gazetteer of India, New edition, published under the authority of His Majesty's secretary of state for India in council. Oxford, Clarendon Press, 1908-1931 [v. 1, 1909] v. 5, p. 76. Available at http://dsal.uchicago.edu/reference/gazetteer/pager.html?objectid=DS405.1.I34_V05_085.gif last accessed on 5 June 2014.
[83] Ibid. Imperial Gazetteer of India, v. 5, p. 77.
[84] *Imperial Gazetteer of India*, v. 5, p. 71
[85] Ibid. Imperial Gazetteer of India, v. 5, p. 77.
[86] Raychoudhuri and Habib 1983, supra at 279. See also, Kumar and Desai, 1983, infra at 10
[87] Raychoudhuri and Habib 1983, supra at 279. The last point also shows that earlier, the trade of manufactured goods was in exchange customarily, rather than a business transaction for cash, and this also gave rise to a patron-client relationship in north and west India, called *jajmani* system. See ibid at 279-280. Although Persian records of 17th and 18th century do not mention this system at all anywhere (see Kumar and Desai, 1983, at 9). However, the custom's continued presence in many parts of rural India indicates it did exist. To what extent it existed in Agra, we are not sure.
[88] One such effort is C.A. Bayle, 1983, *Rulers, Townsmen and Bazaars,* Cambridge University Press.
[89] Ibid at 206
[90] Ibid at 90. See also, Famine Commission (1880), *Report of the Indian Famine Commission, Part I*, Calcutta
[91] Sharma, Sanjay (1993), "The 1837–38 famine in U.P.: Some dimensions of popular action", *Indian Economic and Social History Review* **30** (3): 337–372
[92] Bayly, 1983, at 530. See also, Girdlestone, C. E. R. (1868), *Report on Past Famines in the North-Western Provinces*, Allahabad: Government Press, North-Western Provinces; and Siddiqi, Asiya (1973), *Agrarian Change in a Northern Indian State: Uttar Pradesh, 1819–1833*, Oxford and New York: Oxford University Press. at 222
[93] Bayly, 1983 at 305
[94] Girdlestone, 1868, supra. See also, Smith, Richard Baird (1861), *Report on the famine of 1860-61 (N.W. Provinces and Punjab)*

[95] At a general level, British Gazetteers mention that dominance of Hindus over Muslim merchants and traders had been noticed by early twentieth century (Imperial Gazetteer of India, v. 3, p. 169). Whether this was the result of decline of Muslim rulers like Mughals, or simply famine's impact on minority population, is a question we don't yet have an answer for.
[96] Bayly, 1983, at 79, 91
[97] Ibid at 293
[98] Ibid at 295
[99] *Imperial Gazetteer of India*, v. 5, p. 76.
[100] *Imperial Gazetteer of India*, v. 5, p. 78-79 (except on p. 90).
[101] Ibid at 81, 90
[102] *Imperial Gazetteer of India*, v. 3, p. 168.
[103] Ibid
[104] This comes as a contrast to how large scale enterprises for tanning and manufacturing were being developed in the West. See Kumar and Desai, 1983, at 595. Historians often mention that one of the reasons for decline of leather industry in general during colonial period is due to export of raw leather itself, leaving little for tanneries and footwear manufacturing (see, Dietmar Rothermund, (2003), *An Economic History of India,* Routledge, at 50).
[105] Kumar and Desai, 1983, at 595
[106] Ibid
[107] Damodaran and Mansingh (2008), supra
[108] Kumar and Desai, 1983, at 540
[109] Ibid at 674
[110] Infact, owing to the demand, boots and shoes were largely imported to meet the domestic demand during British time with an increasing rate – between 1886-87 and 1903-04, the import supply increased from 1,130,000 pairs to 2,790,000 (Imperial Gazeetter of India v. 5 Ibid. p. 190.)
[111] Particularly after the mutiny and during industrial slack thereafter; see Damodaran and Mansingh (2008).
[112] See for example, MISRA, S. 1980. Living and working conditions of labourers in leather industry in Agra.
Unpublished Ph.D. thesis. Agra: Institute of Social Studies, Agra University, p. 12 (copy with the author).
[113] Walton, in his monograph notes that the first harness and saddlery factory was established by Lieutenant J. Stewart, an officer of the Arsenal, in 1869 at Cawnpore. See Walton, supra.
[114] Technically, English brought (a) design differential shoes for right and left leg, thus giving better grip, (b) apply strength and durability to the 'upper' part of the shoe though a mixture of *lei* (a mixture of flour, water, sugar, potatoes which acts as adhesive) with copper sulphate, and (c) propose new designs of derby shoes which came with laces (earlier shoes in India used to be without laces, since they would go better with traditional attire of *dhoti* and *pajamas*).
[115] Ibid at 298
[116] Ibid at 78
[117] Dharma, Kumar & Meghnad Desai (1983). The Cambridge Economic History of India. Vol. 2, Cambridge University Press, at 5
[118] Ibid at 7
[119] Notice that urban population across the country had more than doubled in the first half of 20th century (see ibid at 519). Yet there are reasons to believe that this may not have been a continuation of a historical trend particularly due to lack of census data before 1870 (see D.R. Gadgil, *The Industrial Evolution of India in Recent Times* (4th edn, Oxford University Press, Calcutta, 1959), 134-6.). In all likelihood however, Agra's institutional remnants of trade and economy may have generated some immigration from nearby towns, if not considerable.
[120] Ibid at 265-266
[121] Ibid at 9
[122] Raychoudhuri and Habib, 1983, at 286
[123] Ibid at 286-287
[124] However, at this time, Cawnpore has mostly been mentioned as the centre of leather and leather footwear and not Agra, particulkarly in the Imperial Gazetteers (even though Agra's rise later does not seem very surprising either given its dominant mention in the very same Gazetteers and other historical documents). Unless there was a migration of *chamars* from Cawnpore to Agra (for which we

have no corroboratin evidence), the only reason for emergence of Agra as the principal manufacturing hub might be attributed to events that took place right after partition.

[125] *Imperial Gazetteer of India*, v. 3, p. 189.

[126] Ibid

[127] Ibid at 190

[128] Ibid at 189-190

[129] Ibid at 190

[130] Kumar and Desai, 1983, at 674

[131] *Hing* in Hindi, is a kind of spice, that used to come from Afghanistan in medieval trading period. The spice used to come packed in leather bags, and this leather was used to make shoes. This is the most likely connection between a market for shoe being named after a spice. See, ISID report, infra n.

[132] Knorringa, Peter, 1999. "Artisan labour in the Agra footwear industry: Continued informality and changing threats," Contributions to Indian Sociology 33: 303-328

[133] Kumar and Desai, 1983, at 247, 257-259. The transport of bulk commodities would actually take place through Ganges generally. See ibid. at 252-257

[134] Kumar and Desai, 1983, at 267

[135] Knorringa, 1999, at 306

[136] It must be mentioned at this juncture that rise of Chennai as one the most important markets for hides and skins is attributed largely to the efforts of Madras government to develop technology and industry generally. See ibid at 598-599.

[137] Imperial Gazetteer of India, v. 3, p. 189

[138] Kumar and Desai, 1983, at 28

[139] Ibid at 249

[140] Ibid at 267-268

[141] Ibid at 798

[142] Ibid at 797-798. Usurious moneylending in nineteenth century India often reached 50%. See ibid at 799

[143] Ibid at 399-400

[144] Ibid at 449. Note that historical data on small-scale, let alone leather footwear making is scanty and at best unreliable.

[145] Census figures of 1951

[146] The population of Delhi swelled from 1 million to little less than 2 million between 1941 and 1951. See also, Kaur (2007).

[147] Kumar and Desai, 1983, at 30. It is noteworthy that between 1890 and 1930, death rates of Muslims in north India was significantly lower than that of non-Muslims, thereby – albeit crudely – signifying a higher share of income and standard of living. Muslims also had higher life expectancy. This is even more telling because gross reproduction rate of Muslims was lower than that of non-Muslims during this period. See, Leela Visaria, 'Religious and Regional Differences in Mortality and Fertility in the Indian Subcontinent', unpublished Ph.D. thesis submitted to Princeton University, March 1972, cited in Kumar and Desai, 1983, at 505, 506, 509

[148] Kumar and Desai, at 143-157

[149] Knorringa, 1999

[150] Raychoudhuri and Habib, at 279

[151] Kumar and Desai, 1983, at 247

[152] Ibid at 539

[153] Lynch, 1969 at 36

[154] Knorringa, 1999

[155] Knorringa, supra n., p. 307

[156] Ibid. p. 307

[157] Knorringa, supra n. at p. 308

[158] Rothermund, 2003 at 159-160

[159] ISID study, supra n., at p. 75

[160] ibid.

[161] Datasheet from Council for Leather Exports, available at http://www.leatherindia.org/exports/current-export-trends-graph.asp last accessed on 3 October 2013.

[162] Knorringa, P. 1996. Economics of collaboration: Indian shoemakers between market and hierarchy. New Delhi: Sage Publications.

[163] It is surprising how little has situation changed over last two decades. The field notes of Peter Knorringa, who did his survey in Agra in 1990-91 express very similar incidents as mine. One in particular, published in Knorringa (1999), supra n. is as follows:

In the dusk of evening, business in the narrow Hing ki Mandi lanes comes alive. The immediate eye-catcher are artisans that move around with large baskets on their heads, baskets that contain the shoes prepared in the last two to three days. Traders and their assistants sit in their shops, with one eye on the swarming in the lane. Now and then an artisan addresses a trader and takes the basket from his head. Traders reserve a special disdainful look for artisans while they bargain, not a part of a buyer-seller game, but a reflection of caste-superiority feelings. Moreover, as one artisan puts it: 'no matter how perfect are the shoes you offer them, they will still find a hundred faults with them and always try to squeeze a few more rupees out of us, so that we do not have any margin left. They know we have no choice but to sell, and they enjoy it.' At the same time, any trader on Hing ki Mandi can (and will) tell you that: 'Jatavs are an unreliable lot, they cheat, drink, gamble, and eat meat.' (Source: Field notes, 10 December 1990, Agra; Knorringa (1999)).

[164] KASHYAP, S.P. 1992. Recent developments in the small enterprises sector in India: Economic and social aspects. International Institute for Labour Studies, Discussion Paper, DP/48. Geneva: International Labour Office. See also, NADVI, K. 1994. Industrial district experiences in developing countries. In UNCTAD, Technological dynamism in industrial districts: An alternative approach to industrialization in developing countries, pp. 191-255. New York and Geneva: UNCTAD.

[165] Rough estimate based on author's factory visits.

[166] Lynch, supra n. p. 47.

[167] Records of applications, government orders and petitions are available with the author.