

A Case Study of Footwear Industry in India

Sandip Sarkar

The Context

The Indian footwear industry has developed substantial links in the global production network. But, this industry is still dominated by firms that cater largely to the domestic market through the artisanal production system. Specific footwear centres and sections of firms in traditional footwear clusters have established strong relations with the export market. Still, there are only few firms (e.g., Lotus Footwear Ltd., Apache Footwear Ltd. Etc.) that are directly involved in the global production chain of multinational corporation (MNC) in the sports footwear category.. Apart from TATA, no large domestic corporate firm is involved in the footwear production either for export or in the domestic market.

The marketing system of export and domestic markets can be aptly compared in the theoretical framework of transaction cost economics (Teshom et. al, 2003). The key elements of this framework are asset specificity, uncertainty and frequency. In this low technology industry entry barrier is low and asset specificity is largely related to market information. In export market, the market research is largely undertaken by importers (wholesalers, retail chain stores, departmental stores etc.). In the absence of organised market research by wholesalers (along with low development of retail chain stores) direct entry into domestic market requires substantial resources. Second, greater uncertainty exists in the domestic market in the sense of market volatility – lack of information on evolving fashion requirement, demand in particular market and less availability of assurance instruments (letter of credit, agents, quality inspection etc.). Third, importers place relatively larger orders in specific frequency (seasons) whereas domestic wholesalers order in small batches and at less regular frequency.

In this scenario, the size of market, type and quality of product to be manufactured broadly determines the choice of production technology in different market segments. However, the process of technology adoption and technical change therein is influenced by the existing institutions with its specific incentive and disincentive structures which are embedded in the culture (caste specificity of traditional footwear production) and other institutions that are

historical realities (You, 1995). The size distribution of firms and changes in it is the outcome of the interplay of these various factors and institutions.

This study is organised in the following fashion. First, we discuss the footwear industry in India in the global context. Second, we present three case studies to get a complete picture of the complexity and dynamism of this industry. Last, we pinpoint issues that have implication on the employment size distribution of firms.

I. Footwear Industry in India in Global Context

The leather industry is one of the oldest traditional industries. It has several components like tanning, footwear & leather products including garments. Modern leather industry began with British governments direct encouragements. First modern tanning was established in 1857 (Kumar, 1997). The first modern footwear industry was started in 1887. However, the footwear industry was largely based on traditional artisan mode. In the industrial policy of 1967, the leather industry including footwear was reserved for small scale sector. In late 1970s and early 1980s, 100 per cent export-oriented footwear industries in larger scale were promoted and that allowed larger scale industries to get established afresh. Only in the month of June in 2001, the leather industries were de-reserved.

In the following two tables we present the distribution of employment and value added of leather footwear industry across major industrial states.

Table 1: Distribution of Employment across size class of employment (in percentages) in 2004-5

State	DME	Employment Size group (ASI)						Total
		(10-49)	(50-99)	(100-199)	(200-499)	(500-999)	(1000-above)	
Punjab	6.3	18.4		6.1	12.4	56.8		1,711
Uttar Pradesh	26.8	3.9	4.4	15.3	18.9	15.6	15.0	38,444
West Bengal	57.9	4.7		-	-	-	37.5	9,323
Gujarat	-	18.0	-	82.0	-	-	-	350
Maharashtra	40.3	30.6	-	21.8	7.3	-	-	3,925
Andhra Pradesh	-	30.3	69.7	-	-	-	-	445
Karnataka	48.2	2.5	-	37.4	11.9	-	-	1,777
Tamil Nadu	0.9	3.5	4.6	17.3	28.7	18.1	26.8	35,002
Total of 8 states	18,574	4,939	3,610	13,854	18,029	13,299	18,672	90,977
India	24,093	6,330	4,091	14,316	20,455	14,166	18,672	102,123

Note: Row percentages add to 100.

Source: Unit level data of ASI (Annual Survey of Industries), 2004-5 and 62nd round of NSS (2005-6).

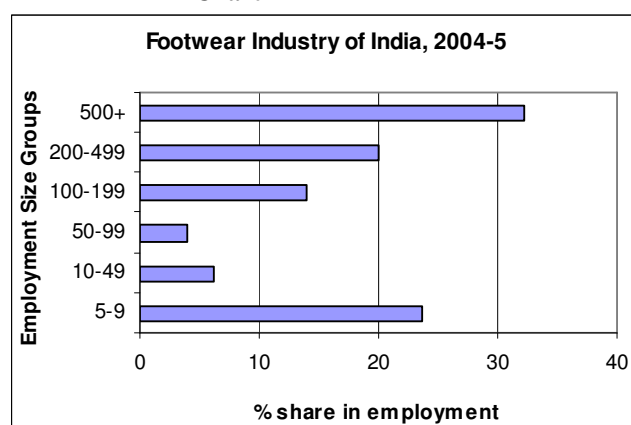
Table 2: Distribution of Gross Value Added across size class of employment (in percentages) in 2004-5

State	DME	Employment Size group (ASI)						Total
		(10-49)	(50-99)	(100-199)	(200-499)	(500-999)	(1000-above)	
Punjab	2.0	18.6	-	1.3	6.1	72.0	-	2,479
Uttar Pradesh	11.2	5.6	10.4	21.5	19.4	17.1	14.9	31,994
West Bengal	47.5	11.1	-	-	-	-	41.4	3,418
Gujarat		0.0						675
Maharashtra	17.3	51.6	-	21.9	9.2	-	-	4,360
Andhra Pradesh		0.0						207
Karnataka	13.4	-0.4	-	58.5	28.4	-	-	968
Tamil Nadu	0.1	1.0	5.2	21.5	31.2	17.9	23.2	26,637
Total of 8 states	6,169	5,258	4,852	14,750	15,338	12,003	12,369	70,738
India	9,382	7,737	6,051	15,192	19,778	13,602	12,369	84,110

Note: Row percentages add to 100 and unit of GVA is Rs. Lakh.

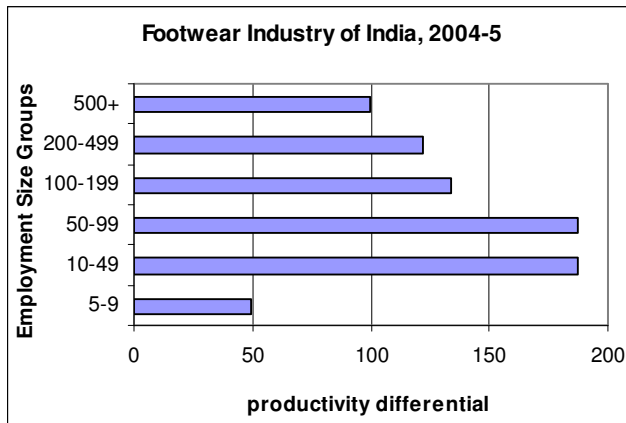
Source: Same as table 1.

As a whole in India, more than one lakh employment is found in leather footwear manufacturing (table 1). Three states namely Uttar Pradesh, Tamil Nadu and West Bengal contribute sizable proportion of employment of footwear industry contributing four-fifth of total employment. These three states present quite different structure of employment across employment size class. Employment in Uttar Pradesh is fairly spread out in middle and upper size class of firms along with employment share of one-fourth in informal sector of DME. In Tamil Nadu, the employment is virtually limited to size class of firms employing 100 workers or more. In West Bengal, we can observe the classical case of missing middle with concentration of employment in informal sector of DME or in firms that employ 1000 workers or more. For India as a whole, the missing middle phenomenon is less prominent with considerable presence of firms in the middle segment (chart 1).

Chart 1

The labour productivity in Tamil Nadu and Uttar Pradesh that have sizeable presence of mid-sized firms is somewhat higher than that of all India. Labour productivity in West Bengal, a stark instance of missing middle, is only half of the level of all India. We have picked up one cluster from each of the prominent states of Tamil Nadu, Uttar Pradesh and West Bengal for undertaking detailed case study. The centres are Agra (Uttar Pradesh), Chennai (Tamil Nadu) and Kolkata (West Bengal).

Chart 2



The size-groupwise labour productivity of footwear industry is quite different (chart 2). The employment size group of 10-99 has highest productivity. Scale economics is reached in the small size class. The labour productivity of largest size class is smaller than all size classes except for the informal sector. The reason lies in older footwear firms employing 1000 workers or more that did not upgrade their technology.

India's leather footwear industry is growing at modest rate in the last one decade. The output growth in between 1998-99 and 2006-7 has been 5.92 per cent per annum (based on inter-sectoral transaction matrix of India). In the last few years (2003-4 to 2006-7), the growth of output has accelerated to 7.31 per cent. The value of output of leather footwear is estimated at Rs. 1289 crores in 2006-7. The footwear constitutes substantial proportion of leather industry and its share in leather industry is continuously going up. India currently produces 2065 million pairs of different categories of footwear consisting of 909 million pairs of leather footwear, 100 million pairs of leather shoe uppers and 1056 pairs of non-leather footwear. It shows that more than half of footwear that is produced in India are non-leather based. In global scenario, India is the

second largest producer of footwear accounting for 14 per cent of global footwear production only after China who produces 64 per cent of global footwear (Khan, 2009).

India currently exports 115 million pairs of footwear. The export constitutes 5.6 per cent of total domestic footwear production. But it constitutes 11.40 per cent of total leather footwear produced in India. But in value terms the export constitutes 45 per cent of total leather footwear produced in India (CLE, 2008). The reason is that in 2008, 95 per cent of all value of footwear exported from India had some leather component. Non-leather footwear constitutes a meagre 5 per cent of value of total footwear export (International Trade Centre, online database). In global trade, 40 per cent of values of footwear export are non-leather. The share of non-leather footwear in footwear export of other competing countries of China and Vietnam are 62 and 48 per cent respectively.

Table 3: India's Share in Global Export of Footwear

Item/Year	2004	2005	2006	2007	2008
Footwear, gaiters and the like, parts thereof (64)	1.42	1.58	1.68	1.72	1.73
Footwear, upper of leather (6403)	1.74	2.07	2.27	2.32	2.51
Part of footwear; removable in-soles, heel cushion etc; gaiter et (6406)	3.38	3.75	3.88	4.41	4.32

Source: International Trade Centre (ITC), online database.

India has a negligible share in global export of footwear. India's share in global export has increased from 1.42 per cent in 2004 to 1.73 per cent in 2008 (**table 3**). In two specific sub-groups of footwear that are based on leather namely leather upper footwear and leather upper or insole, its performance is marginally better. In leather footwear its share in global export has gone up from 1.74 per cent in 2004 to 2.51 per cent in 2008. In leather footwear parts its share in global export is above 4 per cent in 2008.

Table 4: The Share of Major Exporting Countries in Global Footwear Export

Country/Year	2004	2005	2006	2007	2008
Share of China	25.37	28.63	29.77	30.78	32.36
Share of Vietnam	4.55	4.63	4.99	4.96	7.48
Share of Brazil	3.18	2.98	2.68	2.48	2.21
Share of Indonesia	2.20	2.15	2.18	1.99	2.06
Share of Italy	15.5	13.7	13.4	13.4	12.4

Source: Same as table 3.

Table 5: The Share of Major Exporting Countries in Global Leather Footwear Export

Country/Year	2004	2005	2006	2007	2008
Share of China	19.23	21.98	21.74	20.96	19.98
Share of Vietnam	2.34	2.47	3.17	4.34	7.27
Share of Brazil	4.48	4.15	3.63	3.11	2.67
Share of Indonesia	2.52	2.50	2.86	2.56	2.72
Share of Italy	19.61	17.57	17.24	18.02	17.41

Source: Same as table 3.

Compared to India, the major exporting countries of Asia like China and Vietnam has shown substantial increase in footwear exports (**table 4**). In a span of five years from 2004 to 2008, china's share in global footwear exports has gone up from 1/4th of global exports to 1/3rd of global export (table 4). During the same period, the footwear export from Vietnam has shown substantial buoyancy and has risen from 4.55 per cent to 7.42 per cent. Vietnam is equally strong in both leather and non-leather footwear whereas China has virtually captured the global non-leather footwear market and its share in global market for this product is more than half. However, in leather footwear its performance is relatively lacklustre and its share in global export is one-fifth (**table 5**).

Table 6: Direction of Leather Footwear Export of India and Other Competing Countries

Share of importing countries in Export	China	Vietnam	Indonesia	India
USA	51.1	21.6	21.1	11.9
Germany	2.1	14.6	11.4	15.7
France	1.2	7.5	2.5	7.8
U.K.	2.7	12.7	10.4	18.5
Italy	1.4	4.2	8.4	13.8
Japan	3	1.9	2.6	0.2

Source: Same as table 3.

As India's export is limited to leather based footwear, we examine India's share in major importing countries vis-à-vis other competing Asian Countries. In this segment, more than half of China's export goes to the largest importer USA (**table 6**). This market accounts for one-fifth of total exports of Vietnam and Indonesia as well. These two countries export substantial proportion of their output to other European countries as well. Compared to them, India exports only one-tenth of its export to USA. It's export to individual countries of EU like Germany, U.K. and Italy is more than it exports to USA.

Table 7: Unit Value Realisation (in US Dollar) of Leather Footwear Export of India and Other Competing Countries in 2008

Unit value realisation in tonnes	China	Vietnam	Indonesia	India
USA	38,123	27,552	15,441	
Germany	34,277	26,289	17,302	52,488
France	32,793	27,535	15,122	49,607
U.K.	31,532	17,712	13,742	55,257
Italy	32,896	22,809	18,125	
Japan	36,167	24,617	15,038	55,120

Source: Same as table 3.

Looking at the unit price realisation in terms of US dollar per tonnes of leather footwear export for the year 2008 (**table 7**), among competing Asian countries the lowest unit price realisation is by Indonesia whose unit price realisation is in the range of 15-18 thousand dollar per tonnes. Vietnam fares somewhat better unit price in the range of 17 to 27 thousand US dollar. China is not only largest exporter but it also realise better unit of 31-38 thousand US dollar per tonnes of export. The unit price realisation of India is much higher at the range of 49 to 55 thousand per tonnes with much lower quantity of exports.

This also gets confirmed by the findings of Kulkarni (2005) as explained in the **chart 3**:

Table 1. Competitive advantage of different countries in the global leather industry

Country	Competitive Advantages	Suitable Markets
China	<ul style="list-style-type: none"> - Cheap source of footwear - Reliable product quality - Strong in coping with massive standardized orders 	Huge price-driven orders from US discount retail chains.
Brazil	Capable of supplying substantial volumes of quality branded products, not requiring particularly innovative design	Middle class retail chains
India	Capable of responding to small to medium size orders of leather shoes which sell on price rather than quality	Price- driven medium size markets
Italy	Innovative design, high quality fashion	Small and high fashion orders from boutiques

II. Caste Studies of Footwear Industry

We have seen in the table 1 in previous section that leather footwear manufacturing largely takes place in three states of India namely West Bengal (Eastern region), Tamil Nadu (Southern region) and Uttar Pradesh (Northern region). These three states together account for nearly 70 per cent of total employment in this sector. We have undertaken case study of three centres belonging to each of these states. Another important consideration that led us to choose these centres because Kolkata (in West Bengal) largely produces chappals in the unorganised segment, Chennai (Tamil Nadu) produces for the high end of the export market and Agra cluster (Uttar Pradesh) produces in all market segments that fall between Kolkata and Chennai manufacturers. In this fashion we could capture the whole segments of footwear manufacturing in India.

Agra Cluster (Uttar Pradesh)

Agra's shoemaking tradition began during the early days of Mughal Empire in the 16th century. By 1885, it had become major centre for production of footwear and in that very year first mechanised factory to produce military and civil officers' boot of British Government was established (Kumar, 1997).

Some exports began in 1950 to several East Asian countries but only after 1955 the export orders from communist blocks became very important to Agra. One estimation showed that by 1963, 13 per cent of all shoe traded in Agra was with Russia and its satellite countries (Lynch, 1969). In early 1980s, the Soviet Union was single largest importer of footwear from Agra, purchasing shoes worth Rs. 1,200 crores from 150 odd shoe exporters. After the fall of Soviet Union in early 1990s, the shoe export suddenly declined to Rs. 100 crores leading to closure of 60 per cent of shoe-exporting units of Agra. After a decade of lull, the export started picking up and at present nearly 60 footwear exporting units' export around Rs. 1,100 crores of footwear largely to Europe and small amount to USA, Australia and other countries.

Size Composition of Cluster of Agra

Agra's footwear industry can be divided into two major groups. First, organised and mechanised footwear units that produce largely for exports and other units those are producing largely for domestic market. Most of the exporting units are located on each side of Agra-Mathura bypass

road away from the traditional main footwear cluster inside the old city and concentrated around Hing-Ki-Mandi (wholesale market).

The units located inside old Agra and producing largely for domestic market can be subdivided further into three sub-groups - semi-mechanised units producing 200 to 2000 pairs per day, smaller workshops producing 50 to 200 pairs per day and tiny household units producing 12 to 50 pairs per day. Total number of footwear producers can be broken down into 60 exporting units, 200 larger domestic units, 200 smaller domestic units and 4,500 home based units (Ganguly, 2008). Among 60 exporters, there are 10 exporters whose capacity of footwear production is more than 3000 pairs per day and they employ 800 or more workers. Rest of the exporters belong to the midsize groups employing 200 to 500 workers. Among larger domestic units, the larger ones (<10) employ 100-200 workers and the rest employ 50-100 workers. The smaller domestic workshops employ up to 50 workers. The largest group of 4,500 tiny units employ less than 10 workers.

Agra's daily output of footwear ranges between 250,000 and 300,000 pairs of footwear for both export and domestic market. It's share in domestic market is over half and in export market its share is one-fifth. In the absence of tannery in and around Agra, it's export mainly consist of complete leather footwear in which Agra's share in India's is around one-fourth. The average price realisation of export of per pair of footwear from Agra was Rs. 658 in 2006 (CLE, 2008). In domestic market, the complete shoes sell for less than Rs. 1,000 for non-leather ones and more than Rs. 1, 200 for leather ones.

There are large numbers of leather footwear accessories manufacturers in Agra. Nine mechanised last making factories produce 1,500 pairs of last per day and 20-30 small units make 1,000 wooden lasts per day. There are 200 sole making units with capacity to produce 4 lakh pairs of PU, PVC and TPR soles per day. Besides there are 20 modern factories producing insoles. More than 500 traders in Hing-Ki-Mandi deal with complete shoes for domestic market only (Ganguly, 2008).

The 4,500 odd home based units are located in inner city areas where people from Jatav and Muslim community live. These units are mostly artisan based. Historically, in Agra most artisans are specialised only in one or few of the main five activities in footwear making. For making complete shoes they have to hire artisan skilled in other activities where they do not

excel in. In consequence, own account enterprises are less in number even among home based units.

Production Organisation

The organisations of production in Agra are of three distinct types. First, the export oriented 60 odd firms who are mainly family business or partnership firms. A few larger ones are private limited companies. This cluster does not have any presence of corporate sector or MNCs. In 100 per cent export oriented units works on a conveyer belt system. In shoe upper production line 40-50 workers are involved and in finished shoe manufacturing another 40-50 workers work in single production line. On an average 400-500 shoe upper and finished shoes can be produced in each production line in a day.

In smaller exporting firms and in larger workshops producing for domestic market, the production line is much less mechanised. In this type of production organisation, a single production line for upper requires 9-10 workers and for complete shoe production another 8 workers get involved. In this production system, the cutting of leather is mechanised, shoe upper production is partly mechanised and finishing of shoes is relatively more mechanised. A single production line consisting of 18 workers can produce 180-200 complete shoes per day. Some activities like hand stitching, embroidery, stamping are often outsourced.

In small workshops and home based units it is artisan based craft where workers largely work with small tools. Only for sole pasting heater chamber is used. In Agra traditionally artisans specialised in one of the five major activities of shoe making. These activities are cutting of leather, stitching/shoe upper making, lasting, pasting and finishing. The young artisans were trained in the specific skill and this specialisation resulted in higher skill when they were trained as apprentices under the supervision of master in larger workshops. In home based units the young artisans had more opportunities to learn several activities but at a lower skill level.

Most of the exporting firms concentrate on men's and women's footwear and only few of them specialise in children footwear. Children footwear requires larger variation in size, colour and stringent norms of different chemicals used. Most of the raw materials are sourced from local merchants and only in few cases leather and other accessories are imported. In large export units production goes on almost throughout the year but however the peak period last for six months as footwear supplied from Agra go for summer and autumn season.

For domestic market production takes place for 9 to 10 months. Small home based units largely operate for 6-7 months because of proliferation of tiny units and competition from cheaper moulded shoes from China. For domestic market production takes place during festival season that lasts from August to October. Other important period is from November to April when most of the marriages take place. For domestic market the non-production period of April to June is utilised for preparation of sample for ensuing festival season. Normally the home based units prepare 50-60 samples and workshop based firms produce 150-200 samples with various designs. The requirement of preparation of samples with different designs has increase substantially in the last one decade because of faster changing consumer taste and import of fashionable cheaper shoes from China. These designs are sent to dealers who procure orders from all over the country. The quick turnover of design has led to the increasing frequency of use of PVC last and decline in use of wooden last.

The start up cost of establishing firms have gone up because of increasing mechanisation in various size class of firms and preparation of larger number of samples in the forthcoming season. The establishment cost of home based unit requires minimum investment of Rs. 50,000. In the high end i.e. export oriented firms for establishing shoe upper production line it costs Rs. 10 lakhs and for complete shoe production line it costs Rs. 30 lakh. The capital cost of large sized domestic manufacturing workshop is around Rs. 10 lakh.

Footwear exporting firms are leather based. In domestic market the proportion of synthetic leather based shoes has been going up substantially. At low end of slippers it is completely non-leather based casual wear.

Labour Process, Labour Market and Quality and Earnings of Labour

Agra is India's most diverse and tightly knit footwear cluster and still bears the characteristics of artisan rooted low-tech cluster with predominantly small producers. Agra's competitiveness lies on its abundantly available skilled artisan labour. The footwear manufacturers tap its large, skilled and flexible labour pool. In that sense the labour is mostly of local origin although migration from neighbouring districts and other states cannot be ruled out.

These artisan labour force move from one workshop to another working on piece rate basis, run their home based units and even work as wage workers in the large exporting firms. Often persons working as self-employed work as wage workers during the slack season in

exporting firms. In that sense among footwear workers there is hardly any segregation of labour force.

Traditional skills earlier were acquired at a young age as an apprentice in home enterprises or under master artisan in workshop. The skills acquired in workshop used to be better. But with restrictions on child labour in workshop, the interns are now allowed after 15 years of age. The workshop owners complain that good traditional skills cannot be acquired at older age as 4-5 years of training is required to make a young person into trained worker. But in home based units these skills are acquired at a tender age but level of skill is comparatively low. Trained workers also start their own independent tiny unit. Normally if 10 labourers become independent producers, 100 home based producers become labourers (views expressed by one factory owner).

Generally wage work is not the first choice of skilled worker in Agra. The reservation wage in workshop is not perceptibly higher than self-employment and there prevails a sense of independence and pride as owner of an enterprise.

The minimum socially acceptable level of living throughout the year and the amount the workers of different skill level can make in alternative home based units approximately determine the annual earnings. Given the number of months firms on an average operate determine the average wage rate. The average output of workers in different activities along with average wage of workers together determines the piece rate wage of each activity. The following table presents the piece rate and normal output of various activities.

Table 8: Range of Piece Rate Wage in Major Activities of Shoe Production

Major Activities	Range of Piece Rate (Rs.)	Daily Range of Output (in pieces)
Cutting	3-4	50-70
Upper stitching	8-12	30-40
Lasting/ Upper closing	5-6	40-60
Pasting	5-7	40-50
Finishing	2-3	50-60

Source: Based on interviews with home based units.

The average monthly earnings of workers in footwear industry for skilled and unskilled worker vary in the range of Rs. 2,500 – 4000 and Rs. 1,700-2500 respectively. In 10 odd larger factories that comply with corporate social responsibility (CSR) norm watched by importers, the workers are paid according to the minimum wages at different skill level. Only some skilled workers get

higher wages than minimum wages reflecting the efficiency wage mechanism at a rudimentary level. The exporting firms as well as workshop owners complain about shortage of skilled workers. Workshop owners attribute the cause to the abolition of adolescence apprentice system in workshop. The exporting firms report shortage of skilled workers particularly in stitching job in peak season – an activity which is not mechanised. However, skill requirement in assembly line operation is comparatively less. A worker in that set up can learn the trade in three months and can become expert in 9-10 months. In the given work environment and social norm females hardly works in assembly line in footwear industries.

The official training institute like CFTI (Central Footwear Training Institute) and other largely concentrate in training at supervisor level. There is apprehension particularly in workshops that the supply skilled artisan labour would dry up in future which is the basic strength of this cluster.

Productivity measurement is a complex issue. In different size class of firms working in assembly line, semi-mechanised artisan system or in traditional artisan system the per worker productivity of complete shoes vary between 3-5 per day and for slippers between 7-10 slippers per day. But major difference lie in the unit value of per pair of shoes and slippers produced in different size class of firms. To that extent the productivity in physical output term might look similar but productivity in terms of rupee makes substantial difference.

In home based units, domestic firms and small exporting firms' workers are paid according to the piece rate. Only in large factories where assembly line operation takes place it becomes virtually impossible to determine piece wage rate in each small task and workers are paid weekly/monthly remuneration. Even in firms that operate on perennial basis, there is large seasonal fluctuation of employment between peak and slack seasons. Apart from higher wages the large factories have to bear the cost of medical insurance (ESI) and provident fund (PF) expenditure that amount to 4.5 per cent and 12.5 per cent of wage respectively. Examining the data from ESI office it was found that even large factories enrol only small proportion of their workers in social insurance schemes. In large factories, wage cost is normally less than 20 per cent of total cost but if social benefits are given to all workers the labour cost can go up by 4 percentage points.

In larger workshops that are based on semi-mechanised process complain about social insurance cost but hardly a few pay it.

Marketing Channels

The large differentiation of product market has led to the substantial differences in marketing channel. Fundamental difference can be found in the marketing in export and domestic market. Exporters sell their product through buying agents located in Agra and other places of India and also sell to buyers located abroad directly. The outside buyers could be retail chains or wholesalers largely situated in Europe (U.K., Germany, France, Italy etc.). Some firms also export to Middle East and South Africa.

Footwear sold in the domestic market can be categorised as workshop and home based units. The output of workshops are sold to wholesalers partially with own informal brand names and wholesalers brand names. Some other firms sell to big retailers located in other cities. Some firms also undertake subcontracting work of larger firms like Bata, Action etc. Only few firms at this level have their own brand names sold in retail chains. Direct brand selling is a costly affair because it entails large cost in terms of setting up retail stores and bearing the cost of advertisement. The home based units largely sell to wholesalers unbranded or under wholesalers brand names located in Hing-Ki- Mandi. The producers prepare samples for the forthcoming season and if the trader approves some of the designs from the samples, orders are placed at requisite quantity. Payments from the wholesalers take 2 to 3 months but they are given hand notes (Hundi). These hand notes are often encased by the home based units in the discount market by paying a margin of 2 to 3 per cent. The tiny units either sell directly to retail shops or they sell in the weekly markets directly to retailers. Some of them even sell shoe uppers to outstation traders.

Two important factors that come out clearly are why the size of domestic firms are smaller than the exporting firms. First, in Uttar Pradesh firms are exempted from excise duties in footwear till their annual turnover remains less than Rs. one crore and also would not have to pay sales taxes if the maximum retail price of a pair of shoe happens to be less than Rs. 300 per pair. In order to get the benefits offered to smaller scale of operation firms are inclined to remain restricted within the stipulated turnover limit. On the other hand firms also understate their selling price in order to avoid paying sales tax. Second, the huge difference in the transaction costs involved in selling in the domestic market. If a producer for the domestic market wants to sell his products to consumers directly at his own brand names it involves large amount of

investment in setting up retail channels. In the case of exports one can avoid expenditure on marketing because there is one-to one correspondence between the seller and the producer for each act of sale. That is precisely because for exports the contract of sale occurs prior to the act of sale. So firms aspiring to increase the scale of operation become exporters. In this context it is reported that the life cycle of a product increases if a producer is linked to a retail chain that has many outlets. Because of a similar kind of reasoning the number of repeat orders also increases once the producer is linked to big retailers. However, footwear sold through retail chain still constitutes a small proportion of domestic footwear sales in India.

Kolkata Cluster (West Bengal)¹

Kolkata is the one of the oldest centres tanning and leather processing. But organised leather footwear manufacturing failed to take off in Kolkata. In organised segment of leather processing, firms in Kolkata concentrate in producing of leather goods in which Kolkata accounts for two-third of export of all India of Rs. 2,300 crores. Bata, the torchbearer of organised footwear manufacturing, had its factory in Batanagar (near Kolkata). Even now Bata has largest footwear manufacturing in Batanagar (near Kolkata) but it largely concentrates in the industrial footwear or in the non-leather footwear. Organised sector firms engage in producing low priced non-leather footwear of rubber slipper, EVA slippers, PVC shoes, rainwater shoes etc. Firms like Ajanta Shoes and Khadims dominates in this segment at all India level. These manufacturing facilities cater the need of largely domestic market.

Synthetic leather or leather like footwear manufacturing is concentrated in 4500 odd small and tiny enterprises. Production of these units is directed towards domestic market and mostly these operate at the low end of the domestic market. The temperate climate prevailing in eastern and southern part of India does not largely require wearing of shoes even in the winter season. By one estimates, 75 per cent of footwear sold in India are of casual type.

Detailed secondary data on dispersed small footwear units are scanty. Our analysis will be mostly based on survey results. We followed a sub-sector approach with detailed unstructured interview of key informants and selective samples that took care of geographical spread within the city and specialisation of firms. Further, efforts were made to capture different size class of

¹ The background paper of this case study was prepared by Satyaki Roy.

firms within this category of small firms. Information was also collected from traders supplying raw materials and purchasing footwear.

Production Organisation

The small units of Kolkata are artisan rooted and most of them are home based. In our survey we found that half of the units were more than two decade old. Only half of the units had some formal existence in the sense that they have trade licenses issued by the local authorities. Nine-tenth of all units are family owned or under proprietorship and rest are partnership based. The cluster is virtually male dominated. Major reason is that most of the producers are historically migrant workers from neighbouring states of Bihar and Jharkhand and most of them keep their families in the native village. The social background of owners reflects their artisan root as most of them belong to the traditional cobbler caste of Chamars. Most of the owners have low education level and they started working as apprentice at home or in neighbouring units and in course of time opened their own units.

The production of chappals (slippers) is less complex than complete footwear. So the skill level of artisans and major activities in chappal making are less than that of complete shoes. Workers use simple traditional tools and all process are manual. The various occupation related to footwear are sole making, upper making, stitching, fitting, finishing and stamping. Some workers also specialise in embroidery work and making of paper designs of slippers. In family enterprises or in tiny ones the production is carried out by three workers namely soleman, upperman and finishman (mostly low skilled helper). The stitching work that requires sewing machine and finishing work of soles that require grinding machine is done from outside as job work. In larger units, production is done by five artisans where these outsourced work is done within the production unit. In these units finishing work also involves stamping work for branded products. Scaling up of unit involves duplication of this production process without any technological improvement.

There are two peak seasons – i) pre-festival period from August to October and pre summer season form February to March. On the basis of size of output firms can be classified into three groups – les than 200 pairs per week, 200 to 500 pairs per week and more than 500 pairs per week. The production varies considerably between peak and slack season and so also their size of employment. It becomes clear from the table 9.

Table 9: Distribution of Units by Employment and Output Size Categories During Peak and Slack Periods

No. of Workers	Peak	Slack	Pairs/Week	Peak	Slack
Less than 2	2	17	Less than 100	3	23
3 to 6	24	22	100-200	16	14
7 to 10	14	5	201-300	9	4
11 to 15	4	0	301-500	8	3
15 and+	4	4	501-1000	6	2
Total	48	48	1001-3000	6	2
Highest Reported	85	60	Total	48	48

Source: Survey results.

Tiny units employing up to 6 workers constituted half of the units in peak season and four-fifth of the units during slack season. Another important factor that constraints size of firm is the dimension of factory premises as these units are located in inner city.

This cluster no longer produces leather chappals but mostly non-leather ones. At best the inner layer of the upper of slipper is leather. Reason rests in both supply and demand factors. The strict environmental norm of leather tanning units had made tanning industry to move away for the city that increased cost in procuring leather materials and in turn increased the cost of producing leather chappal. Demand has also shifted to non-leather footwear as these are cheaper and perceived to be more durable than leather ones. Barring upper end, the chappal market is largely non-leather.

Major raw materials used are leather (mostly head skin), foam, PVC soles etc. Non-leather substitutes from China and Korea are easily available in the market. The prices of raw materials vary substantially during peak and lean season.

Without formal existence, most of the firms do not access formal credit institutions. Formal credit enters through indirect fashion through raw material suppliers who supply raw materials with seven days credit. The geographical distribution of small firms is related to product specialisation with certain localities specialising in producing ladies and children footwear while others specialise in producing gents Chappals.

The labour productivity differs substantially from peak to slack season. In peak season depending on design a group of 5 workers engaged in different tasks can produce 24 to 36 pairs of chappals working 15-18 hours a day. Gross estimate of labour productivity from surveyed firms show per worker productivity of 7.75 pairs and 4.6 pairs per day in peak and slack season respectively.

Labour Process, Labour Market and Quality and Earnings of Labour

Workers and their home based units situated in the congested slums reveal explicitly the marks of poverty and deprivation. Places of residence and production sites are clubbed into a small rented room, where a wooden *chouki* is the only private place to rest. Earlier the traditional *Chamars* migrated from Bihar and UP were the only producers of footwear. However, people with different caste and religious identities have entered into the labour market in the past few decades. The worker acquires skill and training at an early age either by observing the production process in his family unit or working as apprentice in other's unit. Normally an unskilled worker requires on the job training for about 8 to 12 months to acquire a specific skill. The labour market is flexible and competitive, and wages are paid on the basis of piece rate. Abundant supply of labour together with the absence of labour institutions such as, trade unions has pushed down wages to the reservation level. Piece rate wage of various occupation are given in table 10.

Table 10: Wages by Occupational Categories in Footwear Producing Units in Kolkata

Occupation	Wages(in Rs./dozen)
Upperman	60-72
Stitching	30-35
Fitting	24
Finishing	20
Embroidery	24
Stamping	5
Helper	1000/month

Source: Survey results.

When piece rate wage are translated into average monthly income it amounts to Rs. 2,300 and Rs. 1,400 for skilled and unskilled workers respectively. The declared total minimum wages/ day in tannery and leather manufacturing in West Bengal as on 07.03.2009 was Rs. 126.42, Rs. 130.27 and Rs. 136.04 for unskilled, semi-skilled and skilled workers respectively. Hence, actual wages paid to workers is much less than the declared minimum wages in the specific occupation. In our surveyed firms the share of labour cost in total cost turned out to be 24.4 per cent.

In most of the units work is based almost on putting out system and workers in peak season work for 16 to 18 hours per day. Generally, soleman and upperman are fixed employees who are kept on job even in the off-season by producing minimum level of production at a lower margin. Other tasks are mostly outsourced in the slack season. As a result, in off-season most of the workers undertake alternative jobs as construction worker, loading/unloading jobs and even go back to villages and work as agricultural worker. The multiple jobs in different seasons and

cyclical migration is the feature of the labour market of this cluster and it keeps reservation wage at low level.

Marketing Channels

In terms of marketing channels small firms in this cluster can be divided into three categories:

- a. Few subcontracting units who are linked to the reputed brands. The raw material of specified quality is supplied by parent units and whole produce is purchased.
- b. Most of the small units supply chappals of different designs and quality to few traders after showing sample to the traders. Small producers purchase raw materials on credit and supply final product to the traders.
- c. Some units do not keep fixed relations with any trader and sell to the retail stores or retail market straightway.

Most of the producers do not have own designers. In most cases free lance designers sell designs at the rate of Rs. 130 to 150 per pair. In sub-contracted firms, parent firm sometimes provide their own designs. Usually each unit prepare 10 to 12 pairs of various designs with each pair costing Rs. 200 to 250. Sometimes trader supplies to producers specific designs that it procured from one producer and thus reduces the margin of the original supplier firm. Normally firms in subcontracting relation propose designs twice a year. Parent firms keep check on quality by regular visit. These firms mostly operate throughout the year.

The price realisation of each pair of chappal usually ranges between Rs. 65-80. In our surveyed firms the average price realisation was Rs. 74. The prices remain almost the same throughout the year. The raw material suppliers generally raise price of raw materials during the peak season and thus reduces the margin of earnings of these small producers. Footwear produced in Kolkata is sold to local wholesalers and who in turn sells chappals to retail shops located in the city and other towns in the state or neighbouring states. Competition among small producers is primarily based on prices. Larger units complain that own account units undercut prices because they do not hire in any labour. Increasing competition from mechanised moulded non-leather footwear has also affected the price of chappals produced in this cluster.

Generally the margin of each pair of chappal for manufacturer ranges from Rs. 5 to 10. The larger margin is cornered by wholesalers and retailers. Normally the retail price is nearly 2.5 times the realisation price of the producer. Usually traders delay the payment and only 30 to 60

per cent of the selling amount is realised at the time of delivery. This partial payment by traders has made producers disinclined to produce value added footwear or produce footwear in much larger quantity because it would lead to greater blockage of working capital of manufacturers. There was effort by state government to sell directly to consumers the footwear of these small manufacturers by opening up large number of retail stores but over the years numbers of such retail stores have declined from 56 to 6. The subcontracted small units also face problem of scaling up. In larger batch of production, cost of rejection of one batch of production by parent firms would go up substantially as rejected branded product could not sold to others even at lower prices.

Chennai Cluster (Tamil Nadu)²

This leather and leather products cluster is closely integrated with global value chain. Global cost and compliance related competitiveness is the key of this high-value added export cluster. A ban on export of low value added items of semi processed leather in mid 1980s and large base of tanning industry has contributed to the transition to finished leather and leather product manufacturing. Several policy measures related to subsidies on investment and availing infrastructural facilities through public private partnership (PPP) has encouraged technological improvements.

The emergence of Chennai as a major hub for leather footwear export is due to several factors.

i) location of leather tanning and processing industry in Chennai and in close proximate towns of Ambur and Ranipet; ii) Availability of excellent sea port and airport facility in the city; iii) availability of disciplined workforce; iv) presence of supporting institutions like CLRI and CLE; and v) Promotional measures by state government.

The turnover of Chennai leather cluster is over Rs. 2,000 crores. About 40 per cent output is accounted by finished leather and footwear & its components. Rest of the output is contributed by leather goods, garments and gloves. However, more than half of export of this leather cluster is contributed by footwear segment. This industrial cluster has about 50 manufacturers. There are 4 large integrated manufacturing firms. In addition, there exist 15

² The background paper of this case study was prepared by Deb Kusum Das.

component manufacturers. In terms of export, footwear components still dominate over complete footwear exports. In the year 2006-7, this cluster exported leather footwear worth 381 crores and a larger amount of Rs. 450 crores of footwear components. Several smaller factories still did not move from upper making to complete shoe segment. Most of the enterprises are manufacturer-exporters with major markets being the European Union (including UK) and US. Most of the world's major footwear brands- Clarks, Versace, NEXT, Hugo Boss, Florsheim, K shoes, Liz Claiborne, Guess are sourcing from the factories in Chennai and nearby areas. Large firms and many medium sized firms directly export but rest of the firms indirectly export through merchant exporter or importing agents. More than 90 per cent shoes produced here are exported.

Size Composition of Cluster

As already mentioned Chennai cluster consists of 50 odd firms. The firms are export oriented and they are spread around in industrial estates in the vicinity of Chennai metropolis.

The units in Chennai are most mechanised units. The division of work of both shoe upper and final shoe manufacturing is more elaborate and capital intensive than other parts of India. Some entrepreneurs referred to it as footwear engineering rather than footwear manufacturing. The technical and educational qualification of entrepreneurs are mostly graduate and above. Several local entrepreneurs are CLRI trained and outside entrepreneurs are mostly professional with leather engineering background or have long years of experience of working in Bata shoe company (largest company in India) or as buying agents of imported firms.

Typically one production line of shoe upper manufacturing requires 60 workers in a single production line. Firms start with one production line but quickly they add another production line to make it operate profitably. So, operating shoe upper factories easily get into midsize segments of employing more than 100 workers. Final footwear production including quality check and packaging require another 60 odd workers in single production line. Exporting firms with two production lines each of shoe upper and final shoe easily reach employment size of 250 workers. From our survey of 9 firms we found all surveyed firms had more than 200 workers. Firms that further diversified into tanning or sole making have become larger sized firms. In our survey we came across 3 firms that employed more than 1000 workers with factories located in multiple locations. A factory with more than 500 workers in single premise is rare as typical size of industrial plot in metropolitan city of Chennai cannot house them. Most of

the large sized factories either operate farther away from Chennai or operate in traditional cluster of Ambur (200 km away from Chennai). Larger sized firms are either belong to corporate sector like Tata or they belong to traditional large finished leather manufacturing firms who diversified into footwear manufacturing.

Production Organisation

The organisational structures of Chennai firms are basically of two types. The larger ones are private or public limited and smaller ones are mostly proprietary or partnership firms. Production in this cluster largely goes for 9 to 10 months with one month break before summer (March) and one month after Autumn (October) season. These export oriented units work on conveyer belt system with no substantial difference in level of technology used or in division of labour. Most of machines are of foreign origin. The state of art facility established by one large sized firm requires 30 per cent less manpower and report increase in productivity of 25 per cent in completer shoe manufacturing which is more mechanised than shoe upper manufacturing. On an average one shoe upper production line consisting of 60 workers produces 600 pairs of shoe upper per day. For full shoe production (shoe upper and final shoe), the productivity per worker is 4 to 4.5 shoes per day.

The cost of machines to set up a shoe upper factory is around 20 lakhs. Single final shoe production line would cost around 30 lakhs. However, state of art production line of large sized firms costs substantially more.

The largest segments of production of these firms are men's regular footwear and women's footwear. Only a few firms specialise on children footwear as it requires large variation in size, colour and stringent norm of different chemicals used. Raw materials and other accessories are sourced according to specification of importing firms even from abroad. The import content of this cluster is considerably higher. Another reason is that only 10 odd firms in Tamil Nadu manufacture high quality soles and other accessories used by footwear exporters.

Labour Process, Labour Market and Quality of Earnings of Labour

It is a modern footwear cluster and there is hardly any presence of artisan based production system. Even traditional cobbler community (Chamar) does not constitute substantial proportion of workers. In some units persons from Chamar caste is not preferred as it is perceived that they

are not ready to learn the modern skills. Rather given the sub-division of labour, the skill requirements are quite standardised and any worker can get into the production line within 2 to 3 months and he/she can become skilled labour in specified activity of specialisation in 9 to 10 months.

Two broad categories of workers can be found in this cluster. Workers with low educational level who man the production floor and more educated supervisory/managerial workers. For shop floor workers there is no minimum formal educational level but most of the workforce is primary educated. Some of the workers are high school dropouts. In recruitment of workers, the educational qualification is not a pre requisite.

The unique feature of manufacturing clusters of South India and particularly of Chennai cluster is the presence of large proportion of female workforce in the footwear production. The very process of shoe making with elaborate division of labour with emphasis on cutting, stitching and pasting requires particular type of work ethos that makes female workers more attractive employees from employers' point of view on grounds of higher efficiency and discipline. Only activities that require use of heavy machine like cutting of thick leather sheets, males are preferred. Consequently proportion of female workers in different surveyed firms ranged from 80 to 90 per cent in the shop floor. But managerial workforce is mostly male dominated. In existing labour regulation, long term workers are required to pay various social security benefits whereas young females with contractual mode and shorter employment life (expected to transit to family ways) makes a better proposition to employers. Further, with women workers the management is less apprehensive about formation of trade unions. In large exporting firms one can find internal trade union and in smaller firms there is hardly any presence of national trade unions. The flip side of the phenomenon is that absenteeism among female workers is relatively more so factories have to keep 10-15 per cent surplus workers. In firms located away from heart of the city, female workers are brought to factory and transported back to home by contract carriages and that is additional expenditure borne by the factory owners.

The wages paid in this cluster are fixed monthly salary and there is hardly any gender difference in wages. However, wages of larger sized firms that only hire skilled workers pay premium over monthly rates. Turnover of workers is quite high. Average wage of production workers are round Rs. 3,000 per month which is unskilled wage. Only workers with 2 to 3 years of experience are given higher skilled wage. Most Chennai firms adhere to social security

benefits for supervisory staff but not many production workers can avail these benefits. Non perennial nature of footwear firms is also another factor for not employing large proportion of regular production workers. However, Chennai is one of the most industrialised part of India and there is alternative availability of jobs for workers in automobile, textile and other service oriented activities. There is upward pressure on wages and wages for last several years has gone up by around 10 per cent per annum. Footwear firms are increasingly complaining about shortage of skilled workforce who can work with increasingly sophisticated machines.

Marketing Channels

The unit price realisation of footwear of this cluster is one of the highest in India. In the year 2006-7, the average unit price realisation of per pair of footwear was Rs. 742 and that of shoe upper is Rs. 410 respectively. Our firm level survey showed that the price realisation of footwear starts from \$ 20 a pair and for specialised footwear like ladies boot and dancing shoes range starts from \$35 a pair.

Among exporting firms, there is not much variations in marketing of their products. The larger firms and some of the mid-sized firms export directly to retail chains and other importers. Other firms export indirectly through buying agents located in Chennai and other cities and through export houses. Most of the local export houses are promoted directly by the large manufacturers.

The process of marketing is straightforward. The importing firms send designs to Chennai exporters. The exporters prepare footwear prototypes and manufacture samples. Importers examine samples and confirm their orders and on several occasions specify sources of raw material, accessories and packaging materials. Manufacturers produce and export their products. The complete footwear is normally sent by ship and shoe uppers are shipped by air. Small manufacturers sometimes complain about infrastructural difficulties arising from sending by ship.

III. Issues having Implication on Employment Size Distribution of Firms

a. *Location:* The size of workshop premise and scope of increase of workshop site has important implication of size of factory and further expansion. In Kolkata footwear, the tiny or informal units located in the inner city find it difficult to grow in size constrained by small size

of rented plots from which they usually operate. It is very difficult to get adjacent plot to expand the size of workshop beyond a small size. Relatively successful entrepreneurs expand their factory horizontally in different plots. A similar phenomenon can be seen in home based small units in Agra as well.

In Chennai, the size of industrial plot also inhibits further expansion from mid-size level. Further expansion from midsize to large size would require shifting of factory premise to outskirts of the city where they have to individually build up some of the infrastructural facilities available in industrial estates and they have to transport workers from long distance by contract carriages that entail greater cost. Even several large footwear companies generally have several midsize factories and a few large sized ones are mainly located in small traditional leather processing towns like Ambur where bigger plot can be acquired comparatively easily.

b. Production Technology: It is one of the important determinants of size of factory. Sandal manufacturing units of Kolkata and home based shoe manufacturing of Agra requires minimum worker size of 3 and 5 workers respectively and that determines the minimum size of firms. One production line of complete shoe for exporting firms in Agra and Chennai requires 80 and 120 workers respectively and by default most of the modern exporting firms enter into production at midsize level. The firms that have generally become large sized in Chennai either has backward linkage with finished leather production or has accessories linkage with manufacturing of soles, moulds, last etc.

c. Size of Market and marketing channels: Larger sized market segment allows firms to growth or operate at larger scale. Firms in Agra that want to expand virtually abandon domestic market and enter into export market. Export market is large and each lot of order is of much larger size that domestic market and that allow them to take advantage of scale factor with their modern production line technology. Particularly firms supplying largely to USA rather than Europe grows much easily to large size even when they concentrate only on footwear production.

Domestic market in India is quite large but it is fragmented. One reason is marketing channels are operated by large number of competing wholesalers who can order only small lot. Artisan based production system is more adaptable in meeting requirements such orders. Few mid sized firms in domestic market that exist in Agra also operate in production group of 18-20 more elaborate artisan based production system and they also execute small sized export market particularly of West Asia or managed to have own brand that they sell in retail chain of footwear.

d. Government Policy: Footwear sector was one of the major reserved sector form small scale production over four decades. Only few large firms that existed were either large before implementation of reservation policy or who could become large by availing special opportunities that existed for 100 per cent export units. Reservation policy has been withdrawn in 2001 but still there exist several taxation policies that favour small size. Firms selling footwear over Rs. 300/ 350 has to pay a flat 12.5 per cent VAT and firms selling below that price do not have to pay any tax. There is no graded VAT in regard to price range in this sector. In units in Agra firms has to pay 16 per cent excise duty if their annual turnover is over Rs. 1.5 crores. Growing firms prefer to open new companies once they are around that turnover level and operate from different premises.

e. Nature of Subcontracting: In domestic footwear market only small proportion of sales are done through large retail footwear chain like Bata, Liberty, Khadim's, Shree Leathers etc. These retail chains source a substantial proportion of their output from small and tiny enterprises. One reason is the fear of copying of designs of these retail stores by larger sized firms and who in turn would sell it to wholesalers under different brand names. Tiny and small firms that sell through wholesalers are also constrained because the whole sellers tend to squeeze maximum surplus out of small manufacturers and they do not clear the whole payment at one go and thus keeping the manufacturing firms to operate at low level output equilibrium. In the absence of organised retail it is an uphill task for manufacturer to grow, as establishing brand name requires large investment in terms of setting up of retail stores and spending in advertisement that can be quite risky.

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