CHAPTER-VI

Problems and Prospects of Bell Metal Industry of Sarthebari

6.1 Introduction:

The bell metal industry of Sarthebari is surviving for many centuries where many generations of the same families are involved in the business. But this craft seems to be gone stagnant for many years. It can be seen that the bell petal products of Sarthebari remains more or same over the years. Again there is little expansion of the industry. It is still concentrated in and around the town of Sarthebari. Though there were some efforts of setting up of these industries in some other places of Assam, they failed miserably. Again, we have seen in Chapter V that this industry has been limited to Assamese Hindu community, primarily General Caste population.

The analysis of Chapter II shows that bell metal industry can contribute significantly towards income and employment generation in the district of Barpeta as well as the state of Assam. It has also been established in Chapter IV of this study that it is a highly profitable business. But due to some reasons, this industry is limited to only one place and there is no immediate sign of its expansion. As bell metal is an age old handicraft industry, proper effort must be taken for modernisation and expansion of this industry. For this, it is important to know the constraints faced by the industry and find measures to rectify them. For the development of this industry, it is also very important to study the prospects and possible frontiers of expansion of this industry.

In this chapter, various problems faced by the *Kohars* are highlighted. The problems faced by the *Kohars* were categorised into economic and non-economic problems. Again we have also discussed the prospects of the industry so that it can develop further.

6.2 Review of Literature:

There have been many studies regarding the problems faced by the Micro Small and Medium Enterprises (MSME) sector in recent years in India and abroad.

Naidu and Chand (2012) in their study "A comparative study of the financial problems faced by micro, small and medium enterprises in the manufacturing sector of Fiji and Tonga" primarily studied the financial obstacles faced by MSMEs in Fiji and Tonga. In a sample survey of 200 MSMEs in Fiji and Tonga, this study categorized different problems faced by them into three categories viz. financial problem, administrative problems and marketing problems. The study recommended three solutions to tackle these problems viz. minimum government regulations, better access to finance and proper financial management of the MSMEs.

Singh *et al.* (2022) analysed the impact of financial and non financial impacts of the Covid 19 on 197 exports oriented Indian MSMEs on the basis of the Confirmatory Factor Analysis Model (CFA) and Structural Equation Modeling (SEM). Based on two research questions viz. role of financial and non financial measures to enhance business sustainability and role of government schemes in revival of affected MSMEs the paper "Explaining the revival strategies of Indian MSMEs to mitigate the effects of COVID-19 outbreak" recommends more research in evaluating MSMEs reactions to the pandemic and establishing practical techniques for long term business strategies. The role of the state increased many fold in giving support to women entrepreneurs during the Covid 19 pandemic. Kumar and Singh (2021) in the case study of women entrepreneurs of Delhi titled "Entrepreneurial prospects and challenges for women amidst COVID-19: A case study of Delhi, India" analysed 50 Delhi based young women entrepreneurs. Based on personal interviews and semi structured questionnaires, the study explored how the women entrepreneurs of Delhi set up and ran their enterprises during the Covid 19 pandemic while tackling problems like patriarchal structures of the family and society. The study found that the women entrepreneurs face gender based challenges along with other common problems like market, financial, social capital and accessing state's resources in crisis situations like Covid

pandemic. The study recommended gender specific policies by the government and de-gendering the market system by removing the patriarchal conscience.

Sanu and Anjum (2021) in their study titled "Constraints to the development of MSMEs in Assam, India: do owner managers' background characteristics and firm-specific characteristics matter?" identified the major constraints in the growth of MSMEs in an underdeveloped region like Assam. The study collected data from 200 randomly selected MSMEs in Cachar district of Assam through a structures questionnaire. It applied factor analysis to categorise various types of constraints faced by these enterprises. The constraints faced by these MSMEs were categorised into financial, infrastructure, labour and management, market, and input problems. It concludes that the most serious problem faced by these enterprises is lack of proper finance. The paper recommends that seamless flow of credit should be ensured to these MSMEs through public and private sector agencies. Badve (2016) studies a sample of 29 sampling units from a population of 285 randomly selected registered Small and Medium Enterprises (SMEs) in the Pune region of Maharashtra. This paper studied problems, challenges and prospects of these enterprises. The study found that financing, inadequate social infrastructure, multiple taxation and lack of managerial skills are the four major challenges faced by the SMEs. The paper suggested soft loans to the entrepreneurs by the government, government guarantee of long term loans, public private partnership, capacity building and tax incentives to tackle the problems of SMEs.

Brand building is very important for the success of any enterprise, particularly the MSMEs. Tewary and Mehta (2021) framed rules for effective brand buildings for MSMEs and evaluated the role of entrepreneurs in the brand building process. This qualitative study comprising interviews of 20 MSME entrepreneurs from India highlighted the importance of brand name, management of finance and exit strategy for creation of a successful brand. The paper concludes that more than the owner and the firm, the consumer's needs and aspirations matter in successful brand building. Patil (2017) studied the procurement policies of Small and Medium Enterprises (SMEs) from India. This study examines the questions whether the government procurement policy of procuring the mandatory 20% has been able to generate enhanced SME participation in public procurement. This study concludes that due to various organisations level barriers, the performance of the procurers have been uneven, and

recommends changes relating to organisational capacity building and training for public procurers and SME suppliers.

Ganguly (2021) in the paper titled "Informality and structural change: evidences from microenterprises in India's unorganised manufacturing sector" analysed the structural change experienced by the microenterprises in the unorganized manufacturing sector in India. Based on the secondary data collected from various sources including census of MSME by Government of India, this Non Frontier Time Series analysis used the Tornqvist approximation model. This study concludes that unregistered microenterprises in India are significantly less productive than the registered ones. The study also found that the labour intensity and the size of the firm are related and small firms use factor inputs more efficiently. Rather than financial matters, this study recommends creating a labour pool with proper skills for this sector. Khanna and Singh (2018) studied the current status of the MSME sector in India after economic liberalization and analysed the problems and challenges faced by them. In this time series analysis of secondary data, sourced from www.msme.gov.in various problems faced by the MSME sector in India were identified. They were facing problems like lack of capital and technical knowhow, lack of finance and credit facilities, lack of infrastructure, lack of access to global markets and low production capacity. This study recommended more pro-active role from the government to tackle these issues. Lone and Mehraj (2015) in the paper "MSMEs in India: Growth, Performance and Various Constraints, Impeding their Growth" analysed the various parameters of Indian MSMEs hindering their growth. In the study based on secondary data from various ministries of the Government of India, role and performance, constraints and various policy measures adopted by the government to revitalise the sector were analysed. It identified the constraints faced by the sectors as inadequate market linkage, lack of infrastructure, inadequate finance, obsolete technology and lack of managerial competence. It also analysed the various government initiatives to revitalize this sector and concluded that proper emphasis should be given in formulating MSME friendly policies and building a conducive atmosphere along with proper infrastructure. Basha (2013) enumerated the various problems faced by SME sector in India and suggested an increasing role of the government in developing this sector. Chandraiah and Vani (2014) analysed the definition of MSMEs in India, its role and performance in Indian economy and Government policies towards this sector and problems

of the MSMEs. Based on secondary data, this study concludes that MSMEs sector faced key challenges like lack of adequate and timely credit, very high cost of credit, collateral requirements by the financers, limited or no access to equity capital, problem of procurement of raw material, storage problems, designing, packaging and branding, lack of access to global markets, lack of adequate infrastructure, lack of proper technology, lack of skilled manpower, etc. But this sector is experiencing resurgence due to various government initiatives which is an rewarding feature of the Indian economic growth in recent years.

Due to globalization, the MSMEs in the countries like India are not protected anymore. Singh (2019) assesses the problems faced by the MSMEs of India and studies the technology innovation and implementation (TII) in the firms of Northern India. This study finds that firms face similar kind of challenges in the competitive environment and concluded that an effective technology innovation and implementation can play a bigger role in enhancing the competitiveness of Indian MSME firms. Panigrahi and Rao (2018) studied the Sustainable Supply Chain Management (SSCM) of the textile MSMEs located in Odisha in India. The study identifies the critical barriers in the supply chain practices of these enterprises and also developed a framework for the evaluation of barriers. Based on survey of 12 enterprises, the study identified 150 stakeholders and used the five point Likert Scale to identify the impact of the identified barriers. It suggests that environmental consciousness should be developed for sustainability. Mittal and Raman (2021) in their study "Financing woes: estimating the impact of MSME financing gap on financial structure practices of firm owners" explores the influence of financial gaps in the financial structure planning of MSME firms. In this sample survey of 219 MSME owners, data were collected through a structured questionnaire and analysed with the Structural Equation Model (SEM). This study found that there is significant gap on the financial structure practices. It recommends a proactive financial sector in India and reiterates the need to bridge the financial gap in the MSME sector.

It has been observed that most of the studies regarding the problems and prospects of MSMEs of India are macro level studies based on secondary data. Few studies have also been done from the micro point of view, but most of them deals with a number of differentiated MSMEs within an area. By studying the problems and prospects of the bell metal industry of Sarthebari exclusively, this chapter will bridge the research gap in this area.

6.3 Methodology:

In order to study the constraints faced by the industry, it is important to understand the nature of the problems usually faced by the MSME sector. It has been observed that the problems faced by the MSME sector in all over India are almost same. Thus in this Chapter we have studied those constraints which this sector usually faces. Again as the bell metal industry is a unique one with some distinctive characteristics; it also faces some isolated constraints which may not be present in other micro or handicraft industries. In the field survey, we have identified some unique problems faced by the *Kohars* of this industry and also have analysed them.

The problems faced by the *Kohars* are divided into two categories- economic and non economic problems. Problems like shortage of raw materials, lack of product diversification, marketing problems, imitation products, financial problems, transportation and logistics problems, technique of production, lack of training were categorised into economic problems. Non economic problems that we have discussed are lack of education, health education etc.

Data regarding the shortage of raw material were collected from the field on two accounts- the supply route and regularity of the two most important raw materials, scrap metal and *Bogorir Angar*. The bell metal industry artisans of Sarthebari have been producing similar products over the years. Data were collected from the *Kohars* whether they have introduced any new products or continued producing the same products. The marketing problems faced by the *Kohars* are analysed by observing two basic constraints – the nature of the customers of a *Garhshall* and the place of sale. Data were collected from the field regarding to what type of customers the *Kohars* sell their products to, viz. ultimate consumers, traders or the cooperative. Again data were also collected regarding the place where they sell their products viz. locally, outside Assam, outside India, trade fairs, door to door or weekly markets.

One of the biggest problems faced by the *Kohars* of Sarthebari is the competition faced from cheap and inferior quality imitation products. Data were collected from the field about the types of imitation or dummy products which are available in the market. Again data regarding whether the *Kohars* are intimated by these imitation products were also

collected. Production techniques are a major constraint in handicraft industries like bell metal industry. The production techniques of the industry are discussed in details in Chapter-III. Data were collected from the *Kohars* whether they are happy with the current state of production technique or they want to upgrade. The transportation bottlenecks faced by the industry are also discussed in this chapter on the basis of distance of Sarthebari from the bigger towns of lower Assam and its connectivity via rail, road and air routes. Finance is one of the most important constraints faced by an industry. The bell metal industry is no exception. Data were collected from the *Kohars* regarding the source of finance to the *Garhshalls*.

Working conditions of a firm can influence its productivity. It is important for the firms to have some basic facilities for the workers. Data were also collected regarding availabilities of basic amnesties like light, fan, recess, restrooms, availability refreshments were collected from each *Garhshall*. All the collected data were analysed with tables and percentage methods.

6.4 Results and Discussions:

6.4.1 Economic Problems:

An industry like the bell metal industry of Sarthebari may face a number of economic problems. The Indian MSME firms face a number of economic problems which are also common in case of the bell metal industry of Sarthebari. However, it has been observed that the *Kohars* of Sarthebari does not face some of such problems which are present in other similar industries. Problems like non availability of skilled labour and labour dispute are not present in the bell metal industry of Sarthebari. These problems are very common in most of the MSME clusters in India as discussed in above literature review. The *Kohars* of Sarthebari never faces these problems as all the artisans involved in the industry are highly qualified in bell metal production. Again very few *Kohars* have experienced problems like lack of demand, problem of marketing, high cost of capital and non recovery of financial dues. Only four (2.32%) *Kohars* face the problem of lack of demand. This proves that the demand for the bell metal products of Sarthebari remains intact. Among the *Kohars* only six (3.49%) face the problem of marketing. The remaining 96.51 % of the *Kohars* say that they do not face any difficulty in marketing their products, which we have discussed in Chapter-III

(3.5.1.3). Only eight (4.65%) of the *Kohars* admit that the cost of capital is high. Again 10 (5.81%) *Kohars* face the problem of non recovery of financial dues from the *Mohajons* and other customers. But here are some other economic problems which affect the *Kohars* to a great extent. Table -6.1 gives the main economic problems faced by the *Kohars*.

Table-6.1: Economic Problems Faced by the *Kohars*

Cluster	No. of Sampling Units	Nature of Problem				
		Lack of Raw Materials	Product Diversification	Marketing Problems	Imitation products and Cheap Substitutes	Traditional Technique of Production
Sarthebari	77	75(43.6)	5(2.91)	5(2.91)	26(15.12)	5(2.91)
Namshala	28	27(15.7)	3(1.74)	0	27(15.7)	1(0.58)
Gomurah	35	35(20.35)	0	0	8(4.65)	13(7.56)
Karakuchi	13	12(6.98)	0	0	0	11(6.4)
Lachima	7	7(4.07)	0	0	7(4.07)	0
Amrikhawa	12	12(6.98)	0	1(0.58)	12(6.98)	0
Total	172	168(97.67)	8(4.64)	6(3.49)	80(46.51)	30(17.44)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

6.4.1.1 Lack of Raw Materials:

Lack of raw materials is the biggest problems faced by the *Kohars*. 168 (97.67%) percent of the *Kohars* face the problem of shortage of raw materials. This problem also persists in all the clusters. This problem is so prevalent that due to this reason only, the *Garhshalls* have to remain closed for 30-35 days each year (Chapter II; 2.3). This is a huge loss of productivity, and thus potential income of the artisans. There are two main raw materials required in the bell metal industry- charcoal (*Bogorir Angar*) and bell metal (scrap metal). As we have discussed in Chapter-I (1.6) and Chapter-III (3.5.1.1) that both these raw materials have to be outsourced from other places. The main source of scrap metal is the traders stationed in Sarthebari. All the *Mohajons* and the *Arabdaris* (100%) supply scrap metal to the *Kohars*. But only two traders, one *Mohajon* and one *Arabdari* supplies charcoals to the *Kohars*. The traders usually have two sources of scrap metal, one the consumers and the other is traders of scrap metal situated in Guwahati and Barpeta Road. Many consumers prefer to exchange old bell metal products for new ones. It is observed that many people have old bell metal products at their home which became damaged due to wear and tear. They exchange these old utensils with the traders and buy new utensils by paying the balance

amount. The traders get these at a discounted rate. Observations from field survey reveals that the consumers get around Rs.680.00 per kg of scrap metal, whereas the market price for the same is Rs.710.00. But amount of scrap metal supplied through this route is very low. There are a few traders in Guwahati and Barpeta road who source scrap bell metal from different parts of the country and sell it to the *Mohajons*. Earlier they sourced scrap metal from countries like Pakistan and Bangladesh. But of late, these sources have dried out and hardly any scrap metal comes from Pakistan. The artisans of bell metal do not produce bell metal products from raw bell metal. They prefer scrap metal only. Some *Kohars* tried to make bell metal products from raw metal, but results were not satisfactory as it becomes costlier than that of scrap metal. Hence, they discontinued this practice and stuck to scrap metal. Because of this there is always a shortage of supply of scrap metal. The other important raw material *i.e.* charcoal is also in short supply. As the *Kohar* uses only *Bogorir Angar* in production and it is not available locally. These have to be sourced from Meghalaya and because of this, charcoal is always in short supply.

6.4.1.2 Lack of Product Diversification and Introduction of New Products:

One of the most interesting facts of the bell metal industry of Sarthebari is that the *Kohars* refuse to recognise one of the major problems, namely, lack of product diversification. Only eight (4.64%) of the *Kohars* are ready for introducing new products. The other 95.36% *Kohars* are happy with their product profile. If a *Kohar* is producing *Kahi*, he wants to continue producing *Kahi* for his whole life, because his father also produced *Kahi*. As we have discussed in Chapter III (3.6.1), tradition is the most important factor which determines the choice of the product of a *Kohar*. From the field survey, we have found that five *Kohars* from Sarthebari and three from Namshala have started introducing new products like decorative pieces, wall hangings, images of Gods and Goddesses, statues etc. But most of these are made from brass metal, because in comparison to bell metal, brass is a softer metal, hence easy to give shape. Again as the *Kohars* of Sarthebari do not use the moulding technique, they are not able to make these products from bell metal. Most of the *Kohars* of Sarthebari are very stubborn regarding their tradition, hence they are not ready to make brass metal products. Again they are also not ready to change their production

technique and use the moulding method by abandoning the hit and shape method. Thus they keep producing the same products over the years without any major product diversification.

Tastes and preference of the new generation are rapidly changing. Due to overflow of information and spread of online shopping, different substitute products of bell metal utensils are easily available in the market. These substitutes are better looking and comparatively less costly. The young generation hardly find any appeal in the age old designs of bell metal products of Sarthebari. It has been observed that the *Kohars* have a tendency to ignore this aspect and prefer to stick to their old product profile. This may have a long term effect in the demand for the bell metal products of Sarthebari.

6.4.1.3 Marketing Problem of Bell Metal Industry:

For an individual *Kohar*, marketing of his products have never been a problem. From Table-6.1, it is observed that only six (3.49%) *Kohars* are concerned about marketing. This is because a *Kohar* produces his products on pre-order basis. Whatever is the need of the *Mohajon* or cooperative, they will give pre-order to a *Kohar* specifying size and design and supply him the necessary scrap metal. The *Kohar* takes the scrap metal to their *Garhshall,* makes the products as per the requirements and delivers the items the next day. Sometimes *Kohars* take order from individual customers also. Individual customers through friend or family places orders for different products with the *Kohar*. In such a situation, the *Kohar* purchases the scrap metal from the *Mohajon* or cooperative at the market rate and produces the product. Thus for an individual *Garhshall*, there is no problem of inventories or marketing. But if we observe the industry as a whole then we can observe some marketing constraints.

The bell metal products of Sarthebari have reputation and demand in all over Assam. Sometime it has also crossed the boundaries of the state and spread to the other states of India as well. Whereas products like *Pachang Taal*, Singing Bowl etc have demand in many other countries. Table-6.2 shows sales destination of bell metal products by the *Kohars*. 170 (98.84%), out of the 172 *Kohars* supply their products to the different *Mohajons*. On the other hand, 78 (45.35%) *Kohars* supply their products to the cooperative. This shows that out of the 172 *Kohars* only two supplies their products exclusively for the cooperative. Again 47

(27.33%) *Kohars* sporadically supplies to ultimate consumers directly. If we observe cluster wise then we can see that 96.43 % of the *Kohars* from Namshala sells directly to the ultimate consumers. This percentage is very low in other clusters. Only 20.78% of the *Kohars* of Sarthebari has direct selling connections. In other clusters, this is very negligible. Out of the 78 *Kohars* who sell their products to the cooperative, 46 belong to Sarthebari. This is 59.74% of all the *Kohars* from Sarthebari and 58.97% of the *Kohars* who sell to their products to the cooperative. Out of the 172 *Kohars* in the sample, 104 (60.47%) are members of the cooperative and among them 59 (56.73%) are from Sarthebari alone. This shows that *Kohars* of Sarthebari are able to reap the benefit of the cooperative more in comparison to the *Kohars* of other clusters.

Table-6.2: Sales Destination of the *Kohars*

Cluster	No. of Units	Direct Sale to the Consumers	Traders/ *Mohajon*	Cooperative
Sarthebari	77	16(20.78)	76(98.7)	46(59.74)
Namshala	28	27(96.43)	28(100)	7(25)
Gomurah	35	2(5.71)	34(97.14)	18(51.43)
Karakuchi	13	0	13(100)	6(46.15)
Lachima	7	1(14.29)	7(100)	1(14.29)
Amrikhawa	12	1(8.33)	12(100)	0
Total	172	47(27.33)	170(98.84)	78(45.35)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

If we consider the sales destinations of all the 71 traders we have surveyed, it is observed that all of them sell the products locally. Two *Mohajons* supply their products to traders outside Assam, while three *Mohajons* supply bell metal products to traders outside India. These traders come from Bhutan.

Table-6.3 shows the different places where the *Kohars* sell their products. All the *Kohars* sell their products in the local market, primarily to the *Mohajons* and the cooperative. None sells their products in the weekly markets, while only one *Kohar* supplies his product for door to door selling. Two (2.6%) *Kohars* from Sarthebari takes part in trade fairs and also sell products there. Again products of 21(12.21%) *Garhshalls* are sold outside Assam.

These are supplied through *Bhutiya Beparis*[1], who regularly visits Sarthebari and purchases products like *Pachang Taal*, *Kahi*, *Daffla Kahi*, etc. Out of these 21 *Kohars*, 20 are from Sarthebari and the other is from Gomurah. Among the 77 *Kohars* of Sarthebari, 20 (25.97%) has a market outside Assam. Among them, two also supplies their product to international locations.

Another important issue is the supply route of bell metal products to other places of Assam. Most of these are supplied through the *Mohajons* and the co-operative. Metal and utensil shop owners from different places of Assam procure their product from the *Mohajons* of Sarthebari. They do not have direct access to the *Kohars* and their *Garhshalls*. So *Mohajons* of Sarthebari also play the role of middlemen in supply of bell metal products to different places. As the *Mohajons* are an integral part of the whole structure of the industry, it is nearly impossible to remove the middlemen from the bell metal industry of Sarthebari.

Table-6.3: Place of Sale of Bell Metal Products

Cluster	No. of Units	Local	Door to Door	Fairs	Outside Assam	International Market
Sarthebari	77	77(100)	1(1.3)	2(2.6)	20(25.97)	2(2.6)
Namshala	28	28(100)	0	0	0	0
Gomurah	35	35(100)	0	0	1(2.86)	1(2.86)
Karakuchi	13	13(100)	0	0	0	0
Lachima	7	7(100)	0	0	0	0
Amrikhawa	12	12(100)	0	0	0	0
Total	172	172(100)	1(0.58)	2(1.16)	21(12.21)	3(1.74)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

When the *Kohars* were asked whether they took part in any exhibition or trade fair, only one replied in affirmative. The *Kohar* from Gomurah took part in local level trade fairs. None takes part in any kind of exhibition or trade fairs. Hence they remain aloof to the benefits of these kinds of marketing tools. The *Kohars* are not even interested to know that there are benefits like advertisement of products, national or international exposure etc. The Assam Cooperative Bell Metal Utensils Manufacturing Society Ltd. also does not play a proactive role in this regard.

[1] Traders from Bhutan and Arunachal Pradesh.

6.4.1.4 Challenges from Imitation Products:

The bell metal Industry of Sarthebari is facing challenges from two kinds of imitation or dummy products- one machine made bell metal products which come from outside the state and the other brass metal products which look similar but cheaper in price and quality. In the field survey, it is learnt that there are many bell metal industries in states like West Bengal and Uttar Pradesh which makes bell metal products using machines. They mainly make *Kahi* and *Bati*. These products look like those made in Sarthebari, but closer inspection reveals that these are not handmade but machine made. Any unassuming customer will never know the difference between a handmade and machine made *Kahi*. But a *Kohar* or a *Mohajon* from Sarthebari just needs a look at the product to tell the difference. With closer inspection any person can tell the difference between them. The machine made products are evenly designed but those from Sarthebari have little flaws in designs as they are made with hands.

The other type of imitation products is more prevalent. Whenever a customer goes to any utensil shop selling bell metal products in any place of Assam except Sarthebari, they are shown two qualities of bell metal products (primarily *Kahi* and *Bati*) - one is costlier and the other is cheaper. The costlier variety of *Kahi* costs Rs1200.00 to Rs.1300.00 per kg, while the cheaper variety costs around Rs.1000.00 per kg. As most of the consumers are price conscious like all Indian customers, they usually buy the cheaper variety. From looks both the varieties have little difference except colour. But in reality the cheaper variety is not bell metal, it is brass metal which actually costs Rs.700.00 to Rs.800 per kg. This is a common practice of duping the consumers in most of the places of Assam by selling brass metal products instead of bell metal products. This usually happens in case of *Kahi* and *Bati* only. These brass metal *Kahis* are sources from many places including some villages around Sarthebari, Hajo of Kamrup district of Assam and places like Moradabad in Uttar Pradesh. It has been observed in field survey that no *Mohajon* of Sarthebari market area will sell brass metal products in the name of bell metal products. Hence people of surrounding areas including those from Barpeta, Nalbari, Pathsala and even Guwahati like to come to purchase bell metal products from Sarthebari market itself.

These types of imitation products can be found in case of *Kahi* and *Bati* only. Because *Taal* cannot be made from brass metal as the resonating sound will not be there. Again products like *Baanbati*, *Bata* and *Maihang* cannot be made using machines in a profitable way because the demand for these is not very high. There is a possibility of finding brass metal *Baanbati*, *Bata* or *Maihang* but chances are very low because of the demand factor and these require very high degree of specialisation for production.

Table-6.4: Challenges from Imitation Products faced by *Kohars* (Cluster Wise)

Cluster	No. Of Units	Yes	No
Sarthebari	77	26(33.77)	51(66.23)
Namshala	28	27(96.43)	1(3.57)
Gomurah	35	8(22.86)	27(77.14)
Karakuchi	13	0 (0)	13(100)
Lachima	7	7(100)	0
Amrikhawa	12	12(100)	0
Total	172	80(46.51)	92(53.49)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

Table-6.4 shows the percentage of *Kohars* who consider challenges from imitation products a threat to the craft of bell metal. 92(53.49%) *Kohars* say that they are not worried about the challenges from imitation products. On the other hand, 80 (46.51%) *Kohars* say that they are worried about challenges from imitation products. If we analyse cluster wise, we can see that 51 (66.23%) *Kohars* from Sarthebari are not worried about imitation products. On the other hand, 100% *Kohars* from Lachima and Amrikhawa and 96.43% of the *Kohars* from Namshala are worried about imitation products. But no *Kohar* from Karakuchi and only 22.86% from Gomurah are worried about the challenges from imitation products. To study the root cause of these discrepancies of response in different clusters, we have also studied the response of *Kohars* product wise.

Table-6.5 shows the response of *Kohars* from the threat of imitation products. Out of the 74 *Kohars* producing *Kahi*, 50 (67.57%) are concerned about the threat from the imitation products. If we analyse the response of *Kohars* producing other products, we can see that only 6 (21.43%) *Kohars* of *Taal* consider imitation products as a threat. Likewise, 6 (30.00%) producers of *Bata*, 2 (25.00%) producers of *Baanbati* and 14 (37.84%) producers

of *Bati* consider imitation products as threat. This establishes that since *Kahi* is the most imitated products, the *Kohars* of *Kahi* are more concerned about the threat from dummy or imitation products. But as the level of imitation is low in case of the other products, The *Kohars* producing these products are comparatively less concerned about the problem.

Table-6.5: Challenges from Imitation Products faced by *Kohars* (Product Wise)

Product	No. of Units	Yes	No
Kahi	74	50(67.57)	24(32.43)
Taal	28	6(21.43)	22(78.57)
Bata	20	6(30.00)	14(70.00)
Bati	37	14(37.84)	23(62.16)
Baan Bati	8	2(25.00)	6(75.00)
Lota	2	1(50.00)	1(50.00)
Maihang	1	0	1(100.00)
Bell/ Others	2	1(50.00)	1(50.00)
Total	172	80(46.51)	92(53.49)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

6.4.1.5 Challenges from Substitute Products:

Assamese people have been using bell metal utensils for eating purposes for centuries. Kings, nobles and rich people used bell metal, copper or silver utensils for dining and the peasants and the poor used banana leaves. In those days, the middle class used bell metal and the poor also used brass metal utensils. After the British came to Assam, new substitutes of bell and brass like aluminium, bone china etc. were introduced. In the modern era, numerous other substitutes flooded the market. The most important among them are stainless steel and melamine. Now we can also find dinner sets of various other materials like steel copper, various kinds of bronze, stainless steel, melamine, glass, opalware, plastic etc.

Most of these products are cheaper than bell metal. A bell metal *Kahi* of diameter 10 to 11 inch weighs around 1300 to 1500 gms. The price of *Kahi* in Sarthebari is Rs1150.00 (Table-2.3). Thus the price of a standard sized *Kahi* will vary from Rs.1500.00 to Rs1700.00. One standard *Bati* weighs around 300 to 400 gms. Thus with a market price of *Bati* at Rs.1150.00, the cost of a *Bati* will be between Rs.350.00 to Rs.450.00. Thus a pair of *Kahi-Bati* will cost anywhere between Rs.1850.00 to Rs.2150.00. A good quality melamine 51

piece dinner set can be bought for a price below Rs.2000.00. Again a stainless steel dinner set costs between Rs3000.00 to Rs4000.00 in India. As these products are cheaper and lighter (which makes them easier to clean) consumers are opting for these products. Now, when guests visit a family, they prefer opalware dinner sets to serve food rather than bell metal utensils.

As consumers are slowly abandoning bell metal from their daily use, there are now being restricted to ceremonial use. The same thing is also happening with other products like *Baanbati*, *Bata* and *Maihang*. Now we can find various designs of stainless steel and metal alloy *Batas* in any utensils shop. Most of these have been sourced from the firms of Moradabad, UP. The cost of *Baanbati* is also very high, a decent sized *Baanbati* weighs around 750 gms and costs Rs.1425.00 in Sarthebari. The selling price of these products will be higher in other towns of Assam on the basis of transportation cost and profit margin of the retailer. Observations from field reveal that sometimes this difference is as high as Rs.200 per kg. Thus almost all the bell metal products except *Taal* suffer from this problem. *Taal* remains immune from this problem because there is no close substitute of the product.

6.4.1.6 Techniques of Production:

It has been discussed in detail about the production technique and process of the bell metal industry in Chapters I and III. The bell metal artisans of Sarthebari use century old production techniques with little or no modification in the production techniques. The only major improvement in the production technique is addition of the roller mills. After the setting up of the roller mills, no major improvements in the production technique are seen in the industry since last 10-15 years. If an industry has to develop, its production technique has to improve so that mass production of the product can be undertaken at low cost. The *Garhshalls* of Sarthebari needs immediate improvements so that they can increase their productivity and meet the growing demand of the products. In the field survey, it was observed that 165 (95.93%) *Kohars* admitted that there is no change in technology in the last five years. Only seven *Kohars* replied that they have used new technology of production, which are the roller mills. Six of these *Kohars* are from Gomurah who produce *Bati* and the other is from Sarthebari who also produce *Bati*. But it was seen that majority of the *Kohars*

want to upgrade their *Garhshalls* to an automated ones. Table-6.6 shows the willingness of the *Kohars* to upgrade their *Garhshalls*.

Table-6.6: Willingness to Upgrade the *Garhshalls*

Cluster	No. of Units	Yes	No
Sarthebari	77	44 (57.14)	33(42.86)
Namshala	28	19(67.86)	9(32.144)
Gomurah	35	28(80)	7(20)
Karakuchi	13	1(7.69)	12(92.31)
Lachima	7	7(100)	0
Amrikhawa	12	12(100)	0
Total	172	111(64.53)	61(35.47)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

Table-6.5 shows the willingness of the *Kohars* to upgrade their *Garhshalls* into an automated one. 111(64.53%) *Kohars* want to upgrade their *Garhshalls* into automated ones, while the remaining 35.47% are happy with the current state of the production technique. 44 (57.14%) of the *Kohars* from Sarthebari want to modernize, while 19 (67.86%) *Kohars* from Namshala want to upgrade their *Garhshall* into an automated one. In Gomurah also, 28 (80%) *Kohars* want to upgrade their *Garhshalls*. But the interesting observations come from Karakuchi, where 12 (92.31%) *Kohars* are satisfied with the current state of technology. But overall majority of the *Kohars* agree to the fact that there is urgent need of upgradation of the production process of the industry.

Although the *Kohars* want to upgrade the production technology, they want to retain the basic character of the industry. They don't want machine intensive production which loses the human touch. They want to upgrade their production technology in terms of better quality *Bhatti*, hammers, better working conditions etc. As discussed in Chapter-III, introduction of new technologies like Power Hammer, Propane Forges, and Grinders etc can be introduced in the industry. But as the *Kohars* are not able to introduce these themselves and there is no corporate backing in this regard, the Government should come forward to train the *Kohars* and also provide financial and logistics support in this regard.

6.4.1.7 Transportation Problem:

Transport system is one of the most basic infrastructure component required for economic development. For an individual industry also, a robust transportation system is very much important. The importance of transportation also increases in case of a localised industry like bell metal industry of Sarthebari.

Sarthebari is a small town located at a distance of 27 kilometres from the district headquarter Barpeta. The commercial hub of Barpeta district viz. Barpeta Road is located at a distance of 42 kilometres from Sarthebari. The other big town in the area, Nalbari, the district headquarter of Nalbari district is 26 kilometres away from Sarthebari. Again Sarthebari is 21 kilometres away from Pathsala, the district headquarter of Bajali district. Actually Sarthebari is situated in the middle of Barpeta Nalbari road and the state PWD road from Pathsala has terminated into Barpeta Nalbari road at Sarthebari. Sarthebari is situated at a distance of 77 kilometres from nearest city, Guwahati which is also the state capital of Assam.

The nearest Airport of Sarthebari is Lokapriya Gopinath Bordoloi International Airport at Guwahati at a distance of 80 kilometres. The nearest Railway stations of Sarthebari are at Pathsala, Nalbari and Barpeta Road. The one at Barpeta Road is the biggest railway station which is 42 kilometres away. Sarthebari is also not connected by National Highway. NH 27 is connected at Pathsala and Nalbari. Again the nearest connection point of Sarthebari to the alternate National highway NH 427 is at Nagaon which is 12 kilometres away.

Thus we can see that Sarthebari does not have any air, rail or national highway connectivity, but at present it has good road connectivity. But the problem is that the roads leading to Sarthebari from Barpeta, Nalbari and Pathsala seldom remains in good condition. The portion of road from Barpeta to Sarthebari was in a very bad condition for many years, but it was reconstructed in 2020. The one from Pathsala is under reconstruction. These roads are always affected during the annual floods and sometimes remain unfit for motor travel. Thus Sarthebari suffers from the connectivity problem, which has proven to be a major deterrent in the development of the bell metal industry as well as the whole area.

The bell metal industry of Sarthebari suffers from transportation problem from sourcing raw materials to marketing of their products. As there is no rail connectivity, the

scrap metal has to be brought in by road from Barpeta Road or from Guwahati. It increases the cost of the scrap metal. Again charcoal required for production of bell metal is brought in from Meghalaya, particularly from the districts of East, North and West Garo Hills. These are brought in from the hills via Goalpara by boats to Bahari, a place in Barpeta district which is 25 kilometers away from Sarthebari. Then these are brought to Sarthebari by road. This also increases the cost of transportation, increasing the price of charcoal.

Again as there is no rail connectivity with Sarthebari, the finished products from the industry have to be supplied through road. No connectivity with national highway also works as a deterrent here. There has been a demand from the people of Barpeta district for an alternative railway line from Bongaigaon to Guwahati via Barpeta, Sarthebari and Hajo. But till now the Indian Railways have not given any commitment regarding this. There is no chance of this railway route materializing in near future. If this railway line materializes, the bell metal industry of Sarthebari will benefit immensely.

6.4.1.8 ` Financial Problem:

Finance is the backbone of an industry. Without financial independence, an industry, particularly handicraft industries like bell metal industry of Sarthebari cannot develop. Although the bell metal industry of Sarthebari enjoys financial economies of scale, it is not free from financial constraints.

The artisans of the bell metal industry of Sarthebari, particularly the *Aidhas* belongs to the poorer section of the society. They are also not very educated. This has proved to be a deterrent in accessing finance required for operation of the *Garhshalls*. Usually the *Kohars* require three types of credits- Long term credit for setting up and maintenance of the *Garhshalls*, Medium term credits for purchase of equipments and short term credit for purchase of raw materials, particularly charcoal.

Savings habit is the basis of loans. 145 (84.3%) of the *Kohars* has a bank savings account. It is a matter of concern that 15.7% of the *Kohars* still do not have a savings bank account. Out of 172 *Kohars*, 81(47.1%) have a loan with different organisations, whereas 91(52.9%) do not have a loan.

Table-6.7: Source of Credit to the *Kohars*

Cluster	No. of Units	Village Moneylender	Relative	Traders & Cooperative	SHG	Bank	NBFI	Own
Sarthebari	77	6 (7.79)	0	0	5(6.49)	10(12.99)	0	56(72.73)
Namshala	28	5(34.29)	0	0	0	0	15(53.57)	8(28.57)
Gomurah	35	12 (34.29)	0	0	0	18(51.43)	0	5(14.29)
Karakuchi	13	0	0	0	0	0	0	13(100)
Lachima	7	4(57.14)	1(14.29)	0	0	0	0	2(28.57)
Amrikhawa	12	8 (66.67)	0	0	0	0	0	4(33.33)
Total	172	35(20.35)	1(0.58)	0	5(2.91)	28(16.28)	15(8.72)	88(51.6)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

Table-6.6 gives the different sources of credit for the *Kohars* in connection with the setting up and maintenance of the *Garhshalls*. It is observed from the field survey that the important source of finance to the *Garhshalls* is the saving of the *Kohars*. 51.6% of the *Garhshalls* depends on the savings generated by the *Kohar*. The second most important source of credit is the village money lenders. One fifth of the *Kohars* (20.35%) approach the money lenders for funds in need. This is a very easy source of finance because of little or no paperwork is involved while taking a loan from a village money lender. But one of the perils of this source is the very high rate of interest. It may vary from three to five percent per month which means the annual rate interest is between 36 to 60%. Sometimes in case of emergency, this may go up to 10% per month. It is also observed in the field survey that 28 (16.27%) *Kohars* take loans from banks. It should be also noted that *Kohars* from only two clusters, Sarthebari and Gomurah have accessed to bank loans. Namshala is the only cluster where *Kohars* have accessed to Non Banking Financial Institutions (NBFIs). 53.57% *Kohars* from Namshala depend on loans from NBFIs. It is a matter of concern that only 27.9% of the *Kohars* have accessed to institutional finance, whereas 72.1% depend on the non institutional sources of credit. Again no *Kohars* were found taking loans from Traders, Cooperative of Microfinance organisations. *Kohars* take advance amount from the *Mohajons*, but these are not in the form of loans. They adjust the advance amount from their *Gorhoni*.

The low penetration of institutional credit to the *Kohars* is a major constraint in the bell metal industry. As the *Kohars* mainly depend on non institutional credit, there is always an element of exploitation and wastage of resources.

6.4.1.9 ` Working Condition of the *Garhshalls*:

The working environment of the workers determines the productivity and level of job satisfaction in a firm. The better the working conditions, more will be the productivity. The artisans of the bell metal industry do not get a very conducive atmosphere for working. Their nature of the work is very physical, on the top of that they do not get a very comfortable working environment. They have to work near the hot *Bhatti* all day long without basic facilities. This has created many health related problems to the *Kohars* as we have discussed in Chapter V. Most of the *Garhshalls* are permanent structures. 95.9% of the *Garhshalls* are on permanent base with tin roof. 7 (4.1%) *Garhshall* are on a temporary base. The *Garhshalls* do not have walls. They are open structures with only base and roof. Due to the heat generated by the furnace, the *Garhshalls* do not have any walls to facilitate ventilation.

Table-6.8: Working Conditions in *Garhshalls*

Cluster	No. of Units	Light	Fan	Water	Break	Rest Room	Refreshment
Sarthebari	77	63(81.82)	37(48.05)	77(100)	76(98.7)	0	77(100)
Namshala	28	18(64.29)	5(17.86)	28(100)	28(100)	0	28(100)
Gomurah	35	10(28.57)	6(17.14)	35(100)	35(100)	0	35(100)
Karakuchi	13	0	9(69.23)	13(100)	13(100)	0	13(100)
Lachima	7	2(28.57)	0	7(100)	7(100)	0	7(100)
Amrikhawa	12	4(33.33)	1(8.330	12(100)	12(100)	0	12(100)
Total	172	97(56.4)	58(33.72)	172(100)	171(99.42)	0	172(100)

Source: Field Survey
Note: Figures in parenthesises represent the percentage of the concerned value.

From Table-6.7, we can observe that all the *Garhshalls* have facilities of drinking water and refreshments. All the *Aidhas* are provided cooked food and tea etc. by the *Kohar*. But the cost of refreshments are deducted from the *Gorhoni*, it is not borne by the *Kohar*. 99.42% of the *Garhshalls* have the facility of break. Only one *Garhshall* in Sarthebari does not have the facility of recess. On enquiry they have replied that they are so busy making their products that they usually don't get time to take rest during production hours. On the other hand, none of the *Garhshalls* has a restroom. The *Aidhas* usually use the toilets of the *Kohars* at the time of nature's call. 56.4% of the *Garhshall* have lighting facilities so that

they can continue production even when it is dark. 75 (43.6%) *Garhshalls* do not have lighting facilities, the *Kohars* of those *Garhshalls* are of the opinion that as their work are over before sunset, there is no need of artificial lighting. However, if need arises they arrange temporary lighting. In only 33.72% of the *Garhshalls,* there is facility of electric fans. If we consider different clusters, we can observe that the working conditions of the *Garhshalls* of Sarthebari are better than those from other clusters. In Sarthebari 81.82% of the *Garhshalls* have lighting facilities and 48.05% have fan, which is the highest among all the clusters.

6.4.2 Non-Economic Problems:

Along with the economic problems, the industry also suffers from a number of non-economic problems like lack of proper education, health problems etc. The non economic problems which are proven to the deterrent in development of the industry are discussed here.

6.4.2.1 Level of Education:

As we have already discussed in Chapter V (5.4.3), the *Kohars* are not very highly educated. None of the *Kohars* have post graduate or any technical degree. 160 (98.83%) of the *Kohars* have studied up to the senior secondary level, and only three have gone to the graduation level. This shows that the *Kohars* are largely semi literate and thus have little knowledge about other official matters like licensing, bank finance, reaping the benefits of government schemes etc. This has proven to be a great hindrance to the development of the industry.

Proper steps should be taken to improve the level of education among the *Kohars* so that they can undertake all the official works themselves.

6.4.2.2 Health Problems:

Due to the unhealthy working conditions, the *Kohars* suffer from many health problems. As discussed in Chapter V (5.4.9), the *Kohars* suffer from many chronic health problems. 49% of the *Kohars* suffer from eye related problems. Health problems like chronic pain, cardiological problems are fairly common among the *Kohars*. Health problems affect the productivity of the artisans. If they fall ill frequently then the production suffers. 95.35%

Kohars visit government hospitals in case of medical emergency. A robust and effective public health system at Sarthebari will help the industry in this regard.

6.4.2.3 Pride of the *Kohars*:

Pride about the profession is always a great matter for the trade. The *Kohars* are highly satisfied with their jobs and take immense pride in it. It is the primary occupation of all the *Kohars*. Only 6.97% of the *Kohars* have other sources of income which come from agriculture. They do not do cultivation themselves. They earn income from the agricultural land owned by them which are given to the farmers of contract basis. Again 47.1% of the *Kohars* want their child to continue their profession.

But this pride has also been a cause of constraint for the industry. It is refusal for change. The *Kohars* are so proud of their profession that they want to continue their profession without any major change. They don't want to adopt new techniques like moulding method of bell metal casting. Again they do not support extensive use of machinery in their craft, because according to them it will kill the beauty and human touch from their products. The *Kohars* consider brass metal as an inferior good, and never indulge in production of brass metal products.

This pride and stubbornness of the *Kohars* have been acting as deterrents in the modification of production techniques, introduction of new products etc. For development of the industry, this mindset of the *Kohars* needs to be changed. But while doing so there is always the fear of losing the uniqueness of the bell metal industry of Sarthebari.

6.4.3 Prospects of the Bell Metal Industry:

The bell metal industry, despite its problems has the potential to grow to a bigger and better industry. All the problems of the industry which we have discussed are not so big problems. With goodwill and little help from the Government, this industry can be developed further. For that a three pronged strategy is needed.

6.4.3.1 Supply of Raw Materials:

The industry has a very high demand for its products. This can be exploited by increasing the supply of raw materials particularly scrap metal to the industry. The uninterrupted supply of charcoal should also be maintained. If these two raw materials can be

supplied without any interruption then the loss of productivity due lack raw materials can be reduced. Again, the production will increase and hence the demand can be satisfied.

6.4.3.2 Development of Market:

The bell metal products have a very large market in Assam. But it lacks national market. Proper marketing of the Bell metal; products of Sarthebari can create a market beyond the boundaries of the state of Assam. Again, the products of bell metal industry of Sarthebari have an international market. Products like *Pachang Taal*, Singing bowl, *Daffla Kahi* etc has international demand in many countries.

6.4.3.3 Trained Artisans:

The artisans of the industry are highly skilled. If they are properly trained then introduction of new technologies can be easier. Again if the unemployed youth are encouraged to take up this occupation then also the industry can develop further.

Apart from these, we have seen in Chapter –IV that the industry is a highly profitable one. There is possibility of involvement of corporate houses for the development of the industry.

6.5 Conclusion:

The bell metal industry of Sarthebari has been suffering from a number of constraints, which are both economic and non economic in nature. The economic problems faced by the industry can be addressed to with a three pronged formula. The Government, the Assam Cooperative Bell Metal Utensils Manufacturing Society Ltd. and the *Mohajons* should work together for solution of these problems. The non economic problems faced by the industry needs some special attention from the Health and Education departments of the Government of Assam.

In conclusion, we can say that this industry has immense future prospects like high demand, international market, skilled labour and high profitability.