

‘CHINDI’ OR TEXTILE WASTE PRODUCTS OF PANIPAT, INDIA – DYNAMISM OF EMERGING OPPORTUNITIES

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Abstract -The changed world thinking on textiles has had a tremendous impact on the Indian textile industry. Whereas at one time in the United States of America there was a glut of textiles and clothing which was supplied by the garment manufacturing industry of the South East Asian countries like Bangladesh, China, Vietnam and Sri Lanka besides India. Changed ideology on the concept of waste generation along with the world wide concern for environmental depletion have led the world markets and buyers to give the necessary sanctions for improving work ethics and worker conditions.

Alongwith this changed mind set on environmentally friendly clothing concepts there emerged a growing concern for looking at waste especially in terms of textile waste. There was the segregation of Pre-consumer and Post-consumer Textile Waste. The newer age thinking has more to do with Post consumer textile waste (PCTW). The populations and erudite thinkers deliberating upon the future of the planet are now advocating the idea of preventing textile waste to be dumped into landfills where the degeneration is a long drawn process. There is a current wave of thought towards recycling and reuse of a garment to its very end. The entire life cycle of a garment is getting reprocessed, re-designed and reused in a number of forms.

This is the window of opportunity for the textile waste workers of Panipat which has been acknowledged as the “cast off” capital of the world where recycling has become a way of life. There is tremendous scope for this region to emerge as a leader in the arena of refurbishing and renewing fabrics to form a variety of products.

This paper looks at the world thought processes wave that is contributing towards the creation of several new portals of opportunity in an otherwise unexplored, virgin area of redesigning textiles from fabric waste. The methodology for the paper constructs an analysis framework based on secondary reports and documented data compiled by government private and civil society reports and documentation. This conceptual paper is aimed at recognizing and enumerating the various opportunities available to the large number of skilled semi-skilled and unskilled workers. It is also the harbinger of a major lucrative resource for the manufacturing body of Panipat which is currently undirected, unorganized and largely uninformed or even ill-informed on the wide spectrum of products arising to promote a wholesome market in ‘Chindi’ products.

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Textile waste has been traditionally recycled in our county for centuries. It made practical sense to someone who wove the very threads of a garment to ensure the durability and longevity of the clothes for the longest duration of time. In India there was the popular saying of “Dada Kharidae Pota Handai” or literally translated it meant that the grandfather buys clothes that are good enough to be worn by the third generation as well that is the grandson. These days, however, the concept is more of ‘Use and Throw’. Despite this volte face there has emerged the environmental friendly concept of ‘Green Clothing’.

In India the concept of reuse has been ingrained in the Indian psyche. Clothes worn by the father or elder brother are passed on to the younger lot. This traditional of hand me downs is present in most of the households of rural India even today. Among urban populations also clothes are either given away to the work force or reduced to dust cloths for wiping and mopping in households. Recycling, as a central theme for lifestyle changes is yet to catch on. In most metro cities it has become fashionable to invest in some recycled products.

Textile Waste Global: Quantum and Quality Aspects

According to certain estimates textiles waste in the US occupies nearly 5% of the total landfill space. This is true even though the textile recycling industry has approximately 3.8 billion pounds of post-consumer textile waste (PCTW) recycled each year. This volume accounts for about 15% of all PCTW. This raises the moot question of where does the remaining 85% of the discarded textile go? Does it go to the landfills? On an average every US citizen throws off 70 pounds of textiles annually. Since the mid 1940’s the U.S. charities and post-consumer textile recycling industry have recycled or reused billions of pounds worth of clothing, household textiles, shoes, and accessories. Have the landfills claimed the majority of this output? Or have they gone the route of shoddy waste? Or found the way to the “cast off” capital of the world – Panipat?

The Council for Textile Recycling (CTR) is comprised of the leading 501 non-profit organizations that have been dedicated to garnering public awareness on the importance of textile recycling. The objective of the council is to reduce the amount of used clothing and other post-consumer textile waste (PCTW) being thrown into landfills in fact to prevent it totally if possible.

The Council's main goal is to have zero textile waste going to landfills by 2037. The council will make sustained efforts in three key areas. The salient messages and activities of the Council are centered around the following:

1. Initiate a multi-media Public Service Announcement campaign round a message: "Wear. Donate. Recycle."
2. Building relationships and sharing information to support post-consumer textile waste diversion activities.
3. Advocacy on informing public about available end of life (EOL) options for PCTW.

Panipat's Genesis as a 'Shoddy' Industry Hub

Panipat's textiles history goes back to the time when weavers from the Sindh province and districts of Jhang and Multan in Punjab (currently in Pakistan) were uprooted after the Partition in 1947. They relocated themselves in Panipat and its surrounding areas. These were the people who set up their looms to knit coarse, hand-spun cotton carpets, wall hangings and sofa covers (from new wool). Their fine work was an instant hit abroad and was coveted as a dowry gifts in marriages conducted all over northern India. Later, Panipat's emergence as a recycling hub coincided with the slump experienced in Prato, a small industrial town in Italy. Prato had, had a 1,000-year-old tradition in textiles. In the 1990s the mill owners of Panipat bought the discarded Italian machinery from Prato. It was designed to make cheap shoddy yarn from recycled wool. This was the take-off point from where Panipat's industrial venture began to the point where annual revenues rose to over \$300m. This was Panipat's shoddy industry.

Soon to be known and recognised as the "cast-off capital", Panipat become home to over 150-200 such mills. The raw material for these mills was the discarded clothes from Western countries. They turned them into recycled cloth. This industry is currently employing around 20,000 people. It brings in annual revenues of over \$62m. This information was given by Pawan Garg President, of the All India Woollen and Shoddy Mills Association. The word "shoddy" was originally used to describe reclaimed fibre. It had nothing to do with the adjective describing far from perfect material.

In most of the factories heaps of clothes are piled high upto the ceiling. Several women sit around with heaps of clothing before them and meticulously extract zips, chains and buttons from T-shirts, jackets and denim trousers using long blades. In one section a youth expertly wields a knife and bashes synthetic fibre against a tree. In another place clothes are shredded, spun into yarn, woven by power looms and made into low cost blankets. Bullock carts take them for further processing like washing, finishing ironing etc and then they are then sent off for sale in India and beyond.

Thus, on the one hand Panipat may help manage the discards of the planet but the flip side shows-up the least attractive features of the textile business in developing countries. Most of these industrial units run on sweatshop conditions for workers. They are constrained to subsist on rock-bottom exploitative wages, use of child labour and working perpetually in an environment riddled with severe occupational hazards. Almost all workers are contractual laborers who earn only a tenth of what is being earned by those in the formal sector are paid. Women receive INR 120 a day for manually ripping up over 100kgs of garments. Workers sometimes manage to sell off baubles and trinkets scavenged from the cast-off clothes. They often have to share the financial proceeds obtained with the mill owners. Despite all inputs the workers still find it very difficult to make both ends meet.

Currently the recycled industry and business of Panipat is fragmented into several manufacturing units that are disjoint and uncoordinated. This sector is poorly organised and totally unregulated. There is virtually negligible intervention by the government. The standards may have risen had there been some Government policy making inroads in facilitating the process of recycling, according to most businessman. The workers on the other hand feel that the mills did not invest any of their formerly earned fat profits into upgrading the machinery or workers' skills. That could have found them more customers willing to pay premium rates for high-quality fabric from recycled yarn.

No doubt the times have changed. Cheaper, lighter, man-made fibres like polyester and its substitutes are being increasingly preferred by domestic or international wholesale buyers like aid agencies, railways and hospitals. Such materials need expensive machines which many Panipat mill owners cannot afford. Rising labour costs have squeezed margins. Erratic electricity supply and frequent machinery breakdowns are further threats. Most factories in Panipat are currently working at half capacity.

Figure 1: Some Facts about Recycling of Textiles

- a. In Western countries, clothing is donated to charities through collection bags, clothing banks or individual contributions. Most of these clothes are either given to those in need or sold to charity shops like the Salvation Army to raise funds.
- b. The torn and damaged clothes, or those items that are not required by anyone are more often than not sent to India.
- c. This is part of a large global second-hand trade wherein billions of old garments get bought and sold all over the world every year.
- d. Hundreds of tonnes of clothes arrive everyday at Panipat from across developed world like the UK, the US, and several other countries. Usually long queues of loaded trucks are waiting to get into Panipat from the early hours the morning. They are carrying their loads from the port town of Kandla located on India's western coast. Here ships bring containers full of worn clothes and textiles from all over the world. While Panipat is called the "Cast off capital" its businessmen refer to the goods they are dealing in as "mutilated" clothing.

Source: Shilpa Kannan, BBC News, Panipat 12/7/2017



Picture 1- Stocks of Used Fabric Ready for Loading to Shredders
Source: Shilpa Kannan, BBC News, Panipat 12/7/2017

Used clothes can be imported into India under two different categories. These are:

- (i) Mutilated Clothing
- (ii) Wearable Clothing

With a view to protect the interests of local garment manufacturers in India the importers of wearable clothing need to get a licence from the government. This licence is only issued if the buyer guarantees that the clothing will not be sold within India. They have to give the undertaking that these clothes will only be re-exported.

After the garments are usually shorn of all embellishments they then get are torn into strips. These strips are then segregated on the basis of the base colours. Further processing is done on the batches of similarly coloured fabric. After this the next further process is of shredding on machines. These machines refine further what had been done by the human hands. The machines rip the fabric into smaller rags.

The material thus obtained is then fed into a bigger machine which mixes wool, silk, cotton and any man-made fibre like polyester and in turn feeds it into a carding machine which then starts to spin the yarn.

Figure 2: Recycling Facts of Panipat Today

1. Every three tonnes of fabric result in the production of around 1.5 tonnes of yarn.
2. This yarn is then woven back into "shoddy" fabric.
3. The shoddy fabric is used to make blankets.
4. These blankets are used as relief material. They are distributed all over the world during disasters. During and after the tsunami, a cyclone or an earthquake - anywhere in the world, these blankets from Panipat are distributed.
5. Some part of this refurbished fabric is sold as cheap blankets for the poor. Many of the cost under INR 100 even.

Africa is among the biggest consumers for almost all that is made in Panipat. Most traders visit markets in African countries to find buyers for recycled fabrics and other products. Even though there is a local market it is much smaller.

Dwindling Profits – Need for Diversionary Products

Even though the cost of importing textile waste is quite low, the once lucrative business is not as attractive due to raised input expenses. These expenses include custom duties, transportation, storage costs, electricity and labour payments. All these are levied on the goods after they reach India. One of the manufacturers lamented that the consumers in Africa require cheap blankets and it was increasingly becoming a struggle to keep the prices low and affordable for them. We are struggling to keep the prices low. The struggle of the industry has been further heightened due to increased competition from cheaper man-made fibres like polyester.

Pawan Garg, the President of the All India Woollen & Shoddy Mills Association, shared his views that the industry had already shrunk from its previous extent quite significantly. He reported that at one time there had been more than 400 units at Panipat but these had been greatly mitigated to less than one fourth level. Thus, there were less than 100 units currently. He said that "The industry is not doing well. Every day - a unit is closing or reducing production. We have been badly hit".

Earlier work went on 24/7 but currently there is hardly one shift a day. He was confident, however, when he predicted that if the industry continued to shrink any further the problem would not be just in India. The West would also be shaken up. He hoped western support is extended to give it the necessary impetus to boost sales and work towards the industry's survival.

He reminded "What we do here is important work. Think about the impact on the environment if we don't use up these huge mountains of waste". He continued, "In India, things never get wasted. We pass on our clothes to those who need them, and even after that we find ways of using the fabric. I can't think of ever throwing a piece of clothing in the dustbin."

Emerging Opportunities –Scope for Growth

This analytical overview gives an idea that most of Panipat's recycled fabrics have been crafted into a limited number and type of products. The window of opportunity that has opened up globally is the emergence of a high end market for standardized, appealing work-of-art form of clothing and furnishings that can find their way into many an up market home. It is this opportunity that the factory owners of Panipat need to tap and exploit exponentially. No doubt this would entail the team work of designers, talented and skilled workers as also the several marketing and sales people who can tap this raw potential.

Located just forty-five minutes outside of Coimbatore, in South India, these clothes seem to get a new lease on life. None of them can be called old. In fact, no part of the product line can be recognized as recycled. The T-shirts, pants and even cardigans and sweat shirts all have a fashionable appeal as they are tastefully designed, well-cut and well finished. This Finnish company is producing a new age factory that intends converting trash into an entire fashion line.

Jukka Pesola and Anders Bengs are the proprietors of Pure Waste Textiles. They have framed a simple business model. This business model entails the utilization of leftover fabrics to fabricate a totally new usable piece of clothing. It is very difficult to make-out that these clothes have been refurbished from waste textiles.

After the initial success of their venture they have began work on the opening a new unit in Tamil Nadu. The newer facility houses a production unit that takes care of the entire process where fabrics are opened, carded, spun and then woven into new knits. Once fully operational it has been planned that this new unit will fill 200 jobs providing much needed employment for the poverty struck local population. The unit is a state-of-the-art facility that will be fueled by renewable energy sources like wind and solar power.

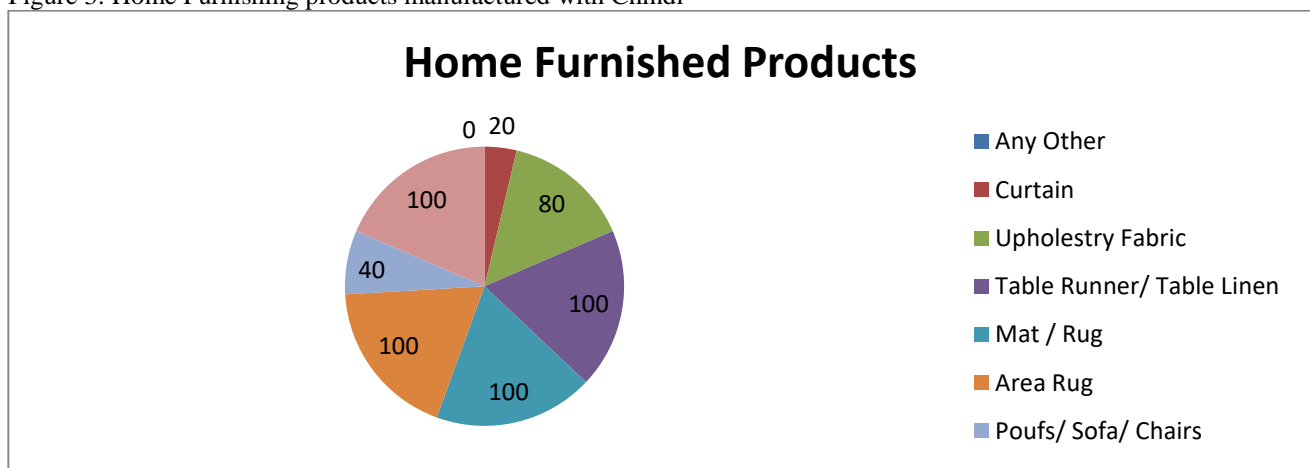
Recycling, according to the Finnish designer, Bengs, is the answer he emphasizes the fact that "We cannot keep growing more cotton, and producing more new clothes. To feed a growing population's appetite for consumption, we have to start recycling, or as we like to call it, purecycling." Cotton, has been observed to be a water-intensive crop. It has also been seen as being very destructive for soil. Thus, the cultivation of cotton has proven to be very expensive as it has eroded precious resources like arable land, which could have been put to better use if it had been used to feed populations. By certain estimates, the current cotton farming land could easily house a nation the size of modern-day Turkey.

Bengs, along with Pesola and three other partner, had begun recycling scrap fabrics about a decade and a half ago. In 2006, a line called Costo, made Bengs a full-time hatmaker. This brand was established and grew in Helsinki. Bengs then began considering and experimenting with sustainable fashion lines. Almost a decade later he consulted Pesola, a textile industry expert having 15 years of experience in contract negotiations with Indian and Chinese suppliers. A new business, Pure Waste Textiles, then took shape in 2013. They based their work on the projection that almost 10 to 15 percent of fabrics are trashed in factories producing massive volumes. The extra fabric, according to these two pioneers is usually enough to produce more clothing.

The unit set up by them in Tamil Nadu facilitates the breakdown of the knitted fabric to fibers once again. Bengs and Pesola argue that growing cotton and then dyeing it, for just one shirt tends to eat up 2700 liters of water.

According to the survey conducted by researcher in Panipat, the maximum appeal and market for 'Chindi' or recycled textile waste products is for area rugs, mats, table linen and cushion. These products enjoy equal popularity in the Chindi market. A close second in this range is upholstery fabric. Other deviants are multipurpose poufs, chairs and sofas that are either upholstered or cushioned by recycled fabrics. Indian designers seem to have the upper hand in designing textiles and their products. However, there is a large lacuna in the area of recycled textiles. The talented designing capacities need to channelize their capabilities to create recycled products having worldwide acceptance and demand.

Figure 3: Home Furnishing products manufactured with Chindi



Source: Survey by Researcher

Some Policy Recommendations

Most of the records and documentation on Panipat revealed that the manufacturers of Panipat had taken a major innovative step post-Partition when they set up the recycling industry. But somewhere along the way they tended to become stagnated in a manner where they only had a global market for a limited number of products like extremely low cost blankets and floor coverings. The contemporaneous industry is in a rut and the manufacturers are caught in a vicious cycle where they continue doing more of the same variety of products or face extinction. They are unable to think at the moment about diversifying into different types of products for the following reasons:

1. They are starved for capital because the current operational capacity of the mills does not support innovations.
2. There is a broad based need to upgrade the archaic machinery.
3. No doubt, labour is comparatively much cheaper there is a great need to upgrade the skills of the workers. Thus, constant training and in-house consolidation of that training is essential.
4. The industry needs to value add to products and therefore there is a necessity to feature in the important the services of designers, product developers and youth from institution of design to bring about a whole new range of designs and products.
5. There is a need to focus on demand generation. The products cannot sell themselves. The buyer's market gives the diktat for products and yet if the products are of utility and beauty they will draw customers like flies to spilt honey.
6. Market strategy needs to be established so that the market for both the older and the newer products continue to enjoy supremacy in the domestic and world markets.

Currently the position of the markets is such that they are in no position to try and change even an iota of their own functioning probably because they are straitened for funds which is their biggest drawback. They are barely able to sustain themselves. Therefore, it is envisaged that the government step in with a hamper of schemes aimed directly at the Chindi industry, Chindi workers and the Chindi products. The government initiatives should focus on:

1. Supporting the manufacturing units through a cluster approach. The government and backward linkages to ensure the units are enabled to work in a newer environment. In this approach the government steps in to support fully or partially by providing working capital, renewal of machinery, promoting the development of newer products and initiating vigorous capacity building of the personal.
2. The government initiatives would take cognizance of the positive and negative aspects of the working conditions as also the work environment of the larger part of the working population whether permanent or part time.
3. Government support schemes for promoting sales of the Chindi products would provide a tremendous boost to the industry. Currently where most manufacturers are working on limited products and very limited techniques for the production of newer utility and decorative products. There is a major lacuna in the sales of these products. Renewed establishment of facilitation extended by the government to the Chindi manufacturing Industry would not only provide fillip to the dwindling industry itself put also to the crafts and its artisans.
4. Arranging buyer seller meets among manufacturers and retailers of Chindi all over the world. The industrialists of Panipat need to visit the newer emerging economies like Peru, Johnsonburg and several others.
5. These and several opportunities for Chindi product are seen to emerge in the present scenario. They have to be promoted as a whole range of utility, decorative and functional products that are eco-friendly and are most cost effective.
6. Lastly there has to be an extensive use, a concentrated sustained, sensitive yet hard hitting media campaign to promote the Chindi products nationally and internationally.
7. Lastly, the government should take the onus for promoting the Chindi concept so that its image goes up from being merely a 'Shoddy' interface for discarded textiles from the world over to becoming a central throbbing hub of recycled reusable yet absolutely new and functioning.

Thus, once these steps are put in place there is every chance that the earlier sunset industry may well become a 'sunrise' industry under all due considerations of the community, the government, the buyers, the sellers, in fact all stakeholders currently involved in the "cast off capital" Panipat.

Newer products ranges are also possible in a variety of other fabric oriented fields as well with not the least being home furnishings. Some of the products have been listed in Figure 3.

Pesola is of the opinion that 95 percent of textile fibers are capable of being recycled. The Pure Waste Textiles unit has an annual turnover of over 1 million euros. The organization has a 10 members unit in Helsinki, 5 members strong unit in Mumbai, and 200 workers in Tamil Nadu. It is obvious from this large set up that recycling is serious business for these determined designer manufacturers.

Their aim is to use the new unit in India for producing mass quantities of fabric, made from recycled materials. Pure Waste Textiles is manufacturing branded designs from recycled materials for clients like Slush, the large technology and entrepreneurship conference held in Helsinki, Europe, every year.

Therefore examining the success and potential to scale up this venture establishes the point that this could be one of the windows of opportunity that may well be taken up by the dealers working in used fabrics in Panipat and other centres of India. Redesigned clothes and other products need to be experimented with by the manufacturers of Panipat.

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