Invited Case Study - Shreni: A Digital Platform for Business Resilience During the Pandemic

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Invited Case Study

Subsistence Marketplaces

Shreni: A Digital Platform for Business Resilience During the Pandemic

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1 Impactree Data Technologies Pvt. Ltd- https://www.impactree.ai/
Abstract

We describe how community weavers and artisans who operated various Micro, Small, and Medium Enterprises (MSMEs) in Karnataka, India, during the pandemic, and how they were able to sustain and grow their business despite the challenges brought on by the pandemic. We used data from two rounds of surveys conducted by Shreni Samudaya², along with Impactree Data Technologies Private Limited. The textile industry recorded negative growth during the pandemic, with the smaller MSMEs experiencing the biggest losses. Despite numerous enterprises shutting down and facing heavy losses, weavers and artisans were able to sustain and upscale their business, reach out to newer markets and customers. They did so by using Shreni’s digital networking platform that built on existing socio-cultural

² Shreni’s founder – Sudhir Kamath and team’s support in enabling the case work on which this paper is based, is gratefully acknowledged (https://www.shrenis.com/about).
embeddedness and trust among its members to deepen and expand the network. We detail the role of the Shreni digital platform in building resilience and community in textile industries and explore how digital-enabled networks can be enhanced to play a significant role in inter-community and domestic trade.

**Introduction**

COVID-19 shook the world in the beginning of 2020, and we are still recovering from it. Enterprises across the board were hit hard and forced to adopt new strategies to survive. Informal sector enterprises across all industries were particularly affected due to factors such as lack of regulatory cushioning in times of crisis. The textile sector in India, being characterised by a low level of technology, low productivity and high labour intensity, was particularly hard-hit. Production, communication, and trading chains were broken, threatening the livelihoods of weavers and artisans.

Most of the enterprises in the textile industry can be categorized under the composite Micro, Small, and Medium Enterprises (MSMEs). The pandemic created unprecedented challenges and heavy losses for MSMEs. It pushed governments, financial institutions, and multilateral development banks to develop and initiate policy responses to help such enterprises. Big stimulus packages, easy loan repayments, low interest rates on loans etc. were just few of the measures taken to ease the burden.

The disruptions caused by the pandemic led to various adaptations which helped numerous MSMEs survive as well as grow their business. In this paper, we study enterprises run by weavers and artisans in Karnataka and detail how they were able to sustain themselves during the pandemic and even grow in some cases. We study how the value chains were reworked and how a digital platform introduced by Shreni Samudaya was utilised to survive, as well as
become resilient and independent. We will also discuss how the digital platform leveraged prior membership and the circle of trust that existed, given the embedded cultural affinity among the weaving and artisanal community.

Background

Textile industry, weavers and artisans

As of 2019, the textile industry in India accounts for 7% of output of industry, 2% of the GDP, and 12% of the export earnings in 2018-19.³

In 2019, the textile industry was among the employers in India with over 45 million people employed directly, and another 60 million people in allied sectors, including a large number of women and rural population. ⁴

India has a rich cultural heritage of handloom industry and handicraft. These industries are renowned for their magnificent workmanship. They produce beautiful and exquisite hand-spun and hand-woven textiles along with hand-carved artifacts that showcase fascinating motifs, designs and the attention to detail.

The textile industry in Karnataka can be traced back to the 8th century and, according to government estimates, contributes 20% to the overall garments production in the country.⁵

⁵ Government of Karnataka, Dept of Handloom and Textiles.
Throughout Karnataka, there are towns and communities of weavers weaving exquisite sarees and various other garments. This tradition has been kept alive by generations, embedded into culture as well as livelihoods and markets. The enterprises currently operating are primarily run by third and fourth generation weavers though there are still old weavers and artisans of the first and second generations. Despite being in the industry for generations, these weavers and artisans find it difficult to make ends meet and are caught in the poverty trap.

**Value Chain**

Centuries of tradition and knowledge has been passed down to the current generation. As the industry is labour intensive and creative, learning and mastering the craft takes years. Mastering the craft skills is sometimes not sufficient because the community also needs to take care of the business front i.e., learning how to market and sell their product, finding and connecting with various markets, etc.

As the community has been active in the industry for a long time, numerous value chains (Figure 1 and 2) have been created and strengthened. The community has ties with various actors who play a part in creating the product. Any break in the chain disrupts the flow and process rendering reconnection of the links that much more difficult.
Many weavers and artisans are guided and work under the watchful eye of a master weaver/artisan. These masters have invested decades into the craft and are now helping the younger generation of weavers. Newer generations of weavers learn not only the craft of weaving or carving artifacts, but also how to source inputs and price the product, as well as
when and where to sell (i.e., marketplace literacy). The knowledge being shared within the community is invaluable.

Embeddedness

The continuance of the weaving and artisanal traditions along with various interactions among and outside the community for economic benefit reinforces and is, in turn, reinforced by social and cultural embeddedness. The theory of embeddedness was expounded by Karl Polanyi who said that the functioning of an economy also depends on the social world in which it was embedded. These economic agents, organizations, institutions, and ultimately the economy as a whole, are part of larger, historically derived social structures. Mark Granovetter built upon the theory and said, “economic action and outcomes, like all social action and outcomes, are affected by actors’ dyadic (pairwise) relations” (Granovetter, 1985). The subsistence marketplaces literature has further unpacked the relationally rich social context at a granular level in terms of 1-1 interactions with fluid and responsive exchanges, enduring relationships, and pervasive interdependence (Viswanathan et al., 2012).

COVID-19 and its challenges

COVID-19 presented many problems for the artisanal and weaver community. Their enterprises already faced the challenge of limited resources and capacity due to their small size. Due to the pandemic, the value chain system, which was developed over generations, was broken. This left the community disconnected from the market and their customers. COVID-19 caused huge losses in production, finance and resilience capabilities (https://theprint.in/economy/small-units-pack-up-weavers-prefer-to-be-guards-how-covid-ruined-karnataka-garment-industry/750135/). Where there was a time when many weavers and artisans relied on retailers and middlemen (often from their own community) to sell their
goods, they were now left with unsold stock that affected their survival. With lockdowns, demand had plunged to lowest levels as retail business outlets shut down and customers prioritized essentials. Supply-side issues were non-availability and inflated price of raw materials, idle looms and breakdown of logistics.

The textile industry recorded negative growth during COVID, of human-made yarn/fabrics/made-ups etc. (-23.33%), and ready-made garments of all textiles (-22.09%) and handicrafts (-6.12%). The apparel industry association, Clothing Manufacturers Association of India, surveyed 1500 of its members in 2020, 60 percent of whom anticipated a 40% drop in revenue. Almost 20% of them were considering closing their business after lockdown. The smaller MSMEs experienced the biggest losses. Firms with less than 8 employees lost 24% of their annual sales, whereas those with over 45 employees lost about 10%.

In addition, 52% of small businesses in the textile industry faced severe financial crunch in COVID-19, 26% of their business were affected severely and over 13.6% of the business shut down. Despite numerous enterprises facing heavy losses, some of the weavers and artisans were able to sustain and upscale their business, and reach out to newer markets and customers. They did so by using Shreni’s digital networking platform that built on existing socio-cultural embeddedness and trust among its members to deepen and expand the network.

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Shreni Samudaya and Impactree Data Technologies

Shreni Samudaya and Impactree Data Technologies\(^8\) conducted two rounds of surveys in 2021 covering 300 Micro, Small and Medium Enterprises (MSMEs) that included producers, aggregators, and retailers in Karnataka. The aim was to understand the impact of the COVID-19 lockdown on the handloom business and the reach and role of Shreni’s digital platform in helping the community to reduce business losses. The previously available data did not provide insights about collaborations among communities and use of digital platforms for better outreach and income generation as qualitative and quantitative metrics were not developed and tracked. The surveys’ aim was to be inclusive, to capture the obvious and visible (quantitative) elements along with the not-so-obvious contextually driven elements (embedded in culture and local practices). By capturing both, the survey allowed for a better understanding of the artisans/weavers and their ecosystems and how they grew their business during COVID-19.

Shreni’s mission is to bridge the gap between occupational communities working in the informal sector and the formal, structured economy to ensure their sustenance and survival. These communities in the informal sector lack access to information regarding livelihood opportunities and empowerment structures that act as professional safety nets and capacity builders.

\[^8\] Impactree Data Technologies Pvt. Ltd. aims at accelerating social development through data. It conducted quantitative and qualitative surveys of the Shreni-enabled WhatsApp networks by connecting with various people along the value chain. Weavers, artisans, middlemen, retailers and more were interviewed and surveyed. Through the impact evaluation done by Impactree, it was able to assist Shreni to understand the penetration and impact of the platform along with identifying last mile interventions which would support Shreni in building relevant and scalable social impact programs.
Shreni introduced a WhatsApp platform which allowed communities to connect with each other and showcase their work and talent and attract potential clients. The platform has over 8500 members spread across Karnataka, Tamil Nadu, Andhra Pradesh, and Telangana. It helps them grow their business while relying on their existing embeddedness in communal bonds and trust to maintain and strengthen the relationships in the chain despite business disruptions. Shreni created about fifteen WhatsApp groups where members shared ideas, products, and inputs and developed new market linkages. The members were able to send messages and voice notes while sharing best practices. The platform also provided various capacity building trainings to help enhance bargaining skills, communication and market linkages. The platform also enabled exchange of inputs such as dyes, prints and designs, and machinery as well as sales of clothes (within the membership) and odd lots (that may have piled up in inventory otherwise). Additionally, it helped the members to source jobs from within the community. Through this WhatsApp group network, Shreni was able to support the textile community and the MSMEs in adapting to the instability of supply chains created by the pandemic and has been able to facilitate business worth over 2 million dollars over a two-year period.

**Insights**

WhatsApp groups and other similar platforms were being used by weavers and artisans which allowed them to take advantage of local supply chains that remained in operation. Shreni’s efforts went a step further and helped them connect with new members of the community as well as reach new customer bases. The platform was able to utilise the existing socio-cultural embeddedness and trust in the community to deepen and expand the network.
“Shreni is perceived as a collaboration platform by the members. There is less competition and increased collaboration, as the master weavers are sharing designs and information and being able to source job work through Shreni. - Master Weaver

The digital networking platform introduced by Shreni allowed the exchange of ideas, designs and knowledge on the platform. The survey found that 50% of the respondents obtained knowledge about the market whereas 35% of the respondents obtained information and inputs from fellow community members.

**Increased collaboration and knowledge exchange**

The culture and knowledge of the weaving and artisanal groups in Karnataka has resulted in a tight knit community, and generations of workers have dedicated their lives to this craft. The survey showed that nearly 90% of the weavers have continued the tradition into the third and fourth generations. The platform enabled 41% from the labourer category also to conduct business whereas they were previously excluded. The platform enabled its members to reach out and collaborate with other members and learn skills. 33% of handicraft artisans and 10% of weavers were able to pick-up new skills from their community members. Similarly, the platform was able to facilitate exchange of ideas and designs which earlier only occurred with specific weavers and artisans. Newer designs and collaborations helped the community to expand creatively. 78% of the artisans and 68% of the weavers (including master weavers) actively share designs on the platform.

**Internal job and material sourcing and access to government schemes**

Social engagement on the platform helped to source jobs and materials within the community. The survey found that 50% of the respondents used the platform to find vendors for repair work and servicing and 47% used the platform to acquire raw materials. The
Government rolls out many schemes for the benefit of MSMEs as well as the weavers and artisans, but knowledge and access to these schemes are limited. The platform allowed for information on relevant government programs to be shared with large numbers. The survey showed that 100% of the people who had subscribed to the Shreni platform were able to access the schemes relevant to them.

**Expansion of markets and linkages**

Members were able to engage with each other to enable sales of left-over inventory, and for buying/selling/renting of machinery, designs and raw material. This was vital in creating a self-sustaining ecosystem which the community depended on during the pandemic. The networking platform provided access to markets and people even beyond. The surveys showed that 50% of the respondents were able to expand their markets through WhatsApp and achieve sales beyond their city or state. Handicraft artisans did better at getting more customers whereas weavers could not access newer customers as effectively.

**Increased bargaining power and diversified selling-platform**

Fifty-six percent of the members felt that their bargaining power increased due to partnering with Shreni. Along with increased collaboration, 37% of the weavers and 28% of the artisans felt that they were able to negotiate better rates from buyers after using the platform. In the unforgiving and fluctuating textile industry, every better marketplace decision helps the weavers and artisans to become a bit more resilient.

With the rise of online marketing platforms, many respondents have resorted to selling their products online. 43% of the artisans stated that they are supplying their products such as woodwork, toys and inlays, on an online platform. Another 43% of the artisans rely on
wholesalers to sell their products. Regardless of the platform, artisans received better bargaining power post joining the Shreni platform as show in Figure 3.

![Figure 3. Bargaining power on various platforms for artisans](image)

However, despite increased collaboration within the weaving community and 80% of the weavers saying that they were able to grow their business through the platform, data showed that sustained revenue generation was still a challenge.

**Challenges**

“Shreni has given a hope and sense of high aspirations for the lower income groups of artisans like myself. I would like to quit working as a labourer for others and start producing and selling independently - Weaver (Labourer)

Each generation of weavers faces unique challenges; however, a few were common across the industry such as input supply (yarn), brand recognition and access to capital. Currently, weavers are dependent on master weavers and other intermediaries from their own
communities and don’t have adequate independent access to inputs. One master artisan created a self-help group which allowed artisans to borrow money and helped them with market linkages and customer contacts directly. Weavers stated that creation of yarn banks and access to institutional credit will allow them to move up the value chain to produce and sell independently.

Most weavers using handloom or powerloom, who have not achieved economies of scale, stated that high costs and low production capacity have been barriers in scaling their business. It is important to note that although scaling up operations is one of the main goals of the respondents, the goal of survival and subsistence was crucial during the pandemic. This resonates with the subsistence marketplaces literature in terms of the survival, subsistence, and growth as all being central to bottom-up sustainability (Viswanathan et al., 2014) and the categorization of survival, subsistence, and transformative subsistence entrepreneurs (Sridharan et al., 2014). The pandemic had disrupted their livelihood and survival and subsistence became paramount. The survey showed how most of the weavers and artisans (80-90%) earn less than Rs. 200,000 annually. At this level of income, sustenance of the individual and their family is paramount. Every effort and every rupee invested into that business counts; and even a small disruption can take away the most basic essentials such as food.

The annual turnover for 70% of the weavers is below Rs. 3,00,000, while turnover for another 25% is between Rs 300,000 and 600,000. Only 5% have a turnover of more than 600,000.\(^9\) Apart from income, the survey also assessed profits. The profits earned by these weavers are also low. For example, 86% of the weavers whose annual turnover is around Rs. 300,000, gain less than Rs. 100,000 as profit. Those with very high turnover stated that costs

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\(^9\) This 5% also captures weavers whose turnover is more than ₹50,00,000 too.
of transportation and electricity are their primary operational costs, whereas weavers with low turnover are trying to minimize costs of production.

Due to their small size, limited resources and capacity, a primary challenge MSMEs faced was the lack of knowledge and willingness to facilitate technology upgradation. The power of technology to sustain and tide over the hurdles presented by COVID-19 has been documented for various enterprises throughout the world (Roy, Patnaik and Satpathy, 2020; Abed, 2021; Kumar and Ayedee, 2021; Redjeki and Affandi, 2021; Suwarni and Handayani, 2021). Even though technology adoption has been catching up, financial constraints prevent expansion. Technology plays a crucial role in creating a stable platform for these enterprises to operate.

“Inadequate infrastructure facilities such as access to power/electricity, water, roads etc. negatively affects the productivity and profitability of these enterprises” (Adelekan, 2005; Asian Development Bank, 2009; Mukherjee, 2018). Infrastructure encapsulates physical infrastructure along with financial infrastructure.

Whereas the platform democratized interactions and the capacity to conduct business by most, master weavers (who have traditionally controlled the design and production) were apprehensive of the increased competition and loss of their control if their workers/weavers joined the platform and worked on their own.

**Solutions**

**Knowledge and adoption of technology and embedded trust**

The knowledge that such platforms exist for the benefit of the community, and the ability to adopt and utilize the platforms is certainly a challenge for various MSMEs. Even if the enterprises are using platforms like WhatsApp to connect with their community and market, a wider net can be cast with the help of networking platforms such as Shreni’s. These
WhatsApp groups may be scattered and integrating them would benefit the community and industry as we have seen above. These groups can be expanded and integrated through technology but, as the case demonstrates, technology works better and sustains when it is built on cultural embeddedness, i.e., the community is linked through kinship and culture and trust is inbuilt. This is very consistent with the 1-1 interactional settings of responsive exchanges, enduring relationships, and pervasive interdependence described in the subsistence marketplaces stream (Viswanathan et al., 2012).

**Sustaining the interdependence in value chains**

Value chains that are not embedded in trust and are purely transactional for products and services face the challenge of sustainability. The disruption of global value chains during the pandemic has shown this challenge. The Shreni network demonstrates this important connection of transactions in embedded trust for sustainability. Being inclusive of such culture and trust while introducing the platform helped in sustaining numerous businesses along with creating self-reliant and independent enterprises and value chains for the long run.

**Skill development**

Workshops were conducted by Shreni to help the members to gain and apply new skills into their business, such as bargaining, creating market linkages, and sales, akin to aspects of marketplace literacy. These workshops were held in a hybrid mode to reach more weavers and artisans. Also in a hybrid mode, mentoring workshops led by master weavers and master artisans helped in imparting knowledge and skills to the younger generations. These workshops helped to enhance the usage and benefits accrued through digital platforms.
Recommendations

As in India, there are various South Asian countries such as Vietnam, Thailand, Bangladesh etc. where the contribution to GDP and employment by the textile industry is significant. Similar enterprises exist there and although the circumstances differed, the pandemic hit each country and their industries hard. Our study showed that support of the community can go a long way in helping itself and industry. The digital networking platform introduced by Shreni might seem small when compared to the monetary packages released by the government (that were for immediate relief), but it was the investment in resilience that is likely to stand the community in good stead for many years to come. The embedding in local kinship networks, culture and context was also critical for establishing the potential for technology to be used for good business. These are the lessons for other nations and similar industries using technological platforms to build business for the community.

We note that platforms are just one way to help the community connect better. Workshops on soft and hard skills, market linkages, and business management have shown to help the community perform better. Shreni was able to impart knowledge and skills along with connecting the community.
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Rajashri Sai is the founder of Impactree Data Technologies [http://impactree.ai/]. Impactree’s vision is to see a world where sustainability adds value to organizations. Rajashri has been involved with scaling multiple development programmes across the world with USAID (United States Agency for International Development) and ground-level partners. During the current COVID-19 pandemic, Rajashri and her team have put together the Hunger collective – a technology enabled marketplace platform which tracks and authenticates the demand for food, rations and medicines and matches it with NGOs. She has developed multiple-level partnerships and built grounds up technology platforms with Banks, Not for profits, social enterprises, corporates, and Governments. Rajashri sai has been awarded and recognized by NitiAyog, Atal Innovation Mission, US State Department (IVLP) for her work. She recently received an award by Gujarat State Government in the presence of the President of India for being one of the top women entrepreneurs.
Vanita Viswanath is a social entrepreneur. She is Director at Impactree.ai, a social enterprise focused on tech-based bottom up data gathering and analytics services. She leads the Women’s Center of Excellence at Jagriti Enterprise Center, an incubator in Eastern UP. She conceptualized and led Udyogini, an enterprise-NGO, for 14 years promoting women's capacity for enterprise in rural areas of several states. Vanita was earlier employed at the World Bank, Washington D.C.

Vanita has been recognized by the World Economic Forum Schwab Foundation India Social Entrepreneur, The International Alliance of Women, Washington D.C, and the Synergos Institute, New York.

Vanita received her PhD from the University of Texas, Austin. She has published widely and guest-lectured in leading US universities such as Yale and Columbia.