



ESSAY: CREATIVE MANUFACTURING

Written and Contributed by

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How can we create compassionate and kinder models of economic activity that look at growth with purpose and consider the planet and all in it, to coexist equitably?

CHALLENGE

A gradual but headlong plunge into *profit-first* and *growth for growth's sake* has distorted the economic structures of the world. Climate change and reduced spending on key infrastructure have been put to test in local epidemics and global pandemics.

It is a system that exacerbates inequality.

Upwards of 4 billion people constitute the unorganised sector in the countries of the global south and even in the prosperous North. These are the smallholder farmers, traders, tradesmen, daily/hourly wage workers and producers.

Unorganised sector means:

01. No access to guaranteed regular income.
02. No health, retirement benefits, social security nets.
03. Limited access to formal banking systems, at best access only to high-interest microfinance loans at 24% + interest or informal lenders at up to 1500% interest.
04. Not being considered as economic actors of any significance when it comes to both government and corporate frameworks.
05. They are vulnerable to life's crises that can push people on the edge back into poverty.
06. They are parts of fragmented and often inefficient value chains.
07. They are disproportionately exposed to risks.

Underserved creative manufacturing producers, while skilled, are not equipped to deal directly with markets they are not in contact with.

01. Access to markets,
02. Consistent orders flow and
03. Lack of working capital

are just three of the big hurdles they face.

An enabling ecosystem, as is in place for mainstream industry, needs to be manifested for producer-owned creative manufacturing.

The number of underserved people in India who depend on or augment their livelihoods with income from artisanal or creative manufacturing activity is 73 million in a study conducted IIFT.

Creative Manufacturing is an important sector of the economy that needs to be reinterpreted for modern living.

Investment in the craft sector is an investment in resources of creativity and innovation, with an impact on competitive strength that goes well beyond the handmade. Those who understand this include Japan, the East Asian Tigers, Italy and Scandinavia. In 2004, China identified handcraft as one of two industries essential to its rise as a global power while in 2003 from the EU emerged a slogan reflecting this advantage: "The Future is Handmade".

SOLUTION

The aggregated, distributed Producer Owned Enterprise Model is one important means of focusing on Inclusive Entrepreneurship which will reduce migration, shorten supply chains that are easily disrupted by crises such as COVID19, climate-related shocks, and strengthen the response.

Creative Manufacturing can play a significant role with a higher impact than the conventional industry when it comes to:

01. Capital investment to employment ratio as compared to other sectors, with low investments in tools and equipment.
02. Low energy footprint.
03. Use of local and natural materials very often sequestering more carbon than releasing it constituting a regenerative business.
04. Stabilise incomes for smallholder farms by providing off-farm employment.
05. Sustainability: handcrafts contribute directly to 10 of the 17 Sustainable Development Goals, including SDG 12: responsible production and consumption.
06. Lower migration and crowding of people into urban slums by decentralized rural distributed production centres.
07. Production processes and livelihoods in which the share of women is 50%, ensuring that earnings go to supporting family and community.
08. Huge demand for handmade quality, at home as well as overseas, that has proved stable even at times of severe recession.

Industree aggregate largely women-owned rural creative manufacturing enterprises, provide a scaffold of professional management and connect them to local national and international markets. These enterprises are built on a modular hub and spoke model that allows for replication and scaling.

An enabling ecosystem is needed for Inclusive Creative Manufacturing.

We call it the 6 C framework.

CONSTRUCT: aggregation operation professional management.

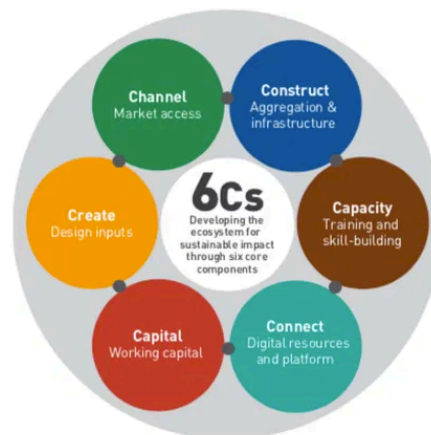
CAPACITY: technical and soft skills access.

CHANNEL: access to markets.

CREATE: product and equipment design.

CONNECT: communication and digital backbone for traceability and transparency.

CAPITAL: access to seed and working capital.



One of the SMEs that Industree has incubated is Greenkraft Producer Company Private Limited, that is owned by the producers who work in it. Under Indian company law, a producer company is equivalent to a private limited company, is board run and has to adhere to the same accounting rigour and accountability as any other company. Greenkraft supplies natural fibre hand made products to customers like IKEA and H&M meeting their levels of compliance quality timeliness and price.

ENABLING ECOSYSTEM AND ITS FRAMEWORK

Integrated value chain approach:

Banana bark products for IKEA starts with the smallholder farmer groups who earn from the base processing of drying and sorting banana bark at the field level and then selling it to the production units, increasing farm side income without an additional growing cost. Similarly in Ethiopia, smallholder cotton farmers are being integrated with handloom weavers and tailors to form a farm to the fashion value chain.

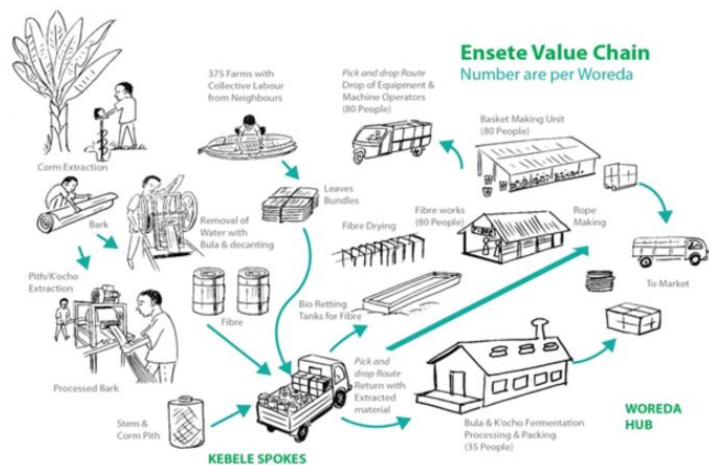


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Brand and last-mile value capture:

KIND – an umbrella brand for artisan producer companies has been created. In Ethiopia, it is called KIND Ethiopia. It was launched recently in Addis Ababa by the Ministers for Trade and Investment and Minister for Culture along with the Ambassador of India. KIND Ethiopia is the first labelled brand that is producer-owned. Hastti visualised as a producer-owned digital marketplace is to be launched later this year.

Scaling through replication:

Industree by itself can grow to about 30,000 producers, within its direct network in the next 10 years with its **Deep Hand Holding** model, Regenearth, professional management training and design, access to capital and market.

Digital technology and platformization can help the model scale far beyond Industree and India. Its first remote learning accelerator for institutions through **Broad Hand Holding** where each entity, that is trained, goes onto to train another five to ten trains. Each creates ever-increasing ripples of capacity building for others to adapt and replicate.

The digital societal platform then aggregates these players to allow for **Light Hand Holding** where anyone, anywhere, can plug in digitally to the ecosystem potentially opening it to 10s of millions of producers globally. Industree has garnered seed funding for Regenearth.

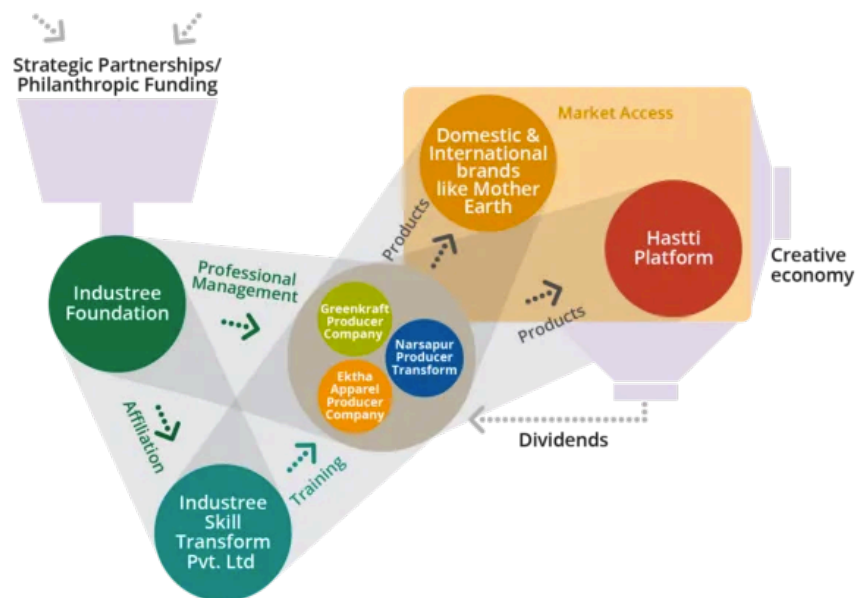


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Partnerships:

Industree has partnered with several entities to build out and scale its model.

Academic and research partnerships:

Industree foundation has a joint initiative with Srishti Manipal Institute of Art Design and Technology, a lab-incubator-accelerator Impact Edge.

Impact Edge researches into new materials, building of curriculum including the development of two academic programs at Srishti:

a) a 3-year bachelor of Vocation program in Creative Manufacturing.

b) a 2-year Master of Arts in Design Practices for Entrepreneurship for Impact.

In addition over the last few years close to 150 students have done their undergraduate thesis programs on projects floated by the Impact Edge lab.

Technology partners:

Digital technologies for traceability and transparency by Platform Commons Foundation an offshoot of midsize IT firm Mindtree Consulting, Impact measurement, by Proof of Impact (SA) and building operating systems with Powered by People.

In addition, another mid-sized Indian IT firm, Sonata software has been building an eCommerce market place called Hastti and a design crowdsourcing digital tool called Create.

Socion, a digital societal platform builder has been working with Industree to build its PIE (Platform for Inclusive Entrepreneurship) that will consolidate all these digital tools and more.

Industree uses the tested ECHO model from the University of New Mexico's health vertical for participatory capacity building.

Funding models:

One of the biggest gaps has been that of funding. Industree does a laddered funding approach using blended capital.

Catalytic philanthropic capital is used for the establishment and building infrastructure in remote rural areas, training and ramping up production.

Then *low-interest debt* is brought in for working capital against

A *working capital fund* is being built out with Montcalm capital from San Francisco tapping into funds from high net worth individuals and donor-advised fund pools (DAFs) with close to market-rate returns.

All of this is done to prevent disproportionate financial risk falling on the most vulnerable parts of a value chain ie the individual producer. An innovative financial instrument “Liberate” is being initiated with Proof of Impact’s blockchain methodology to secure investor funds to raise impact investment for the model to scale.

USAID, Target Foundation, HSBC, Master Card Centre for Inclusive Growth have been donors for the catalytic philanthropic capital and now focus is shifting to debt instruments, bonds development and impact investing.

ENABLING ECOSYSTEM IN COVID19

During this pandemic, the heart of Industree’s response lies in protecting producers directly linked to its existing ecosystem, and using its expertise in addressing wider communities. In addition to carrying out its already funded programmatic activities, through distance learning, and home-based work, Industree has initiated Task Forces in three areas of focus- Lives, Livelihoods, and Life after COVID-19: Business NOT as Usual.

LIVES:

Protect the lives of our Producers and Community.

Our immediate response and need for connecting with our producers have yielded protocols for *call circles*, that offer a small group way of connecting to 100’s of people rapidly. This system has unexpectedly generated a lot of user-generated content, in this case of how to make face masks at home with limited resources. Our skilled producers multiply the creative talent we can draw on beyond making to designing. This now opens a whole

Another unexpected outcome, which is in retrospect unsurprising, is that agency for producers esp women translates into concern and action for those less fortunate than them. Several of our members have requested for help not for themselves but for others in the community with no access to food and basics.

LIVELIHOODS:

With most orders in limbo with the closure of ports and retail outlets, most customers have suspended shipments. Distance Training and Earn from Home with materials locally available, distributed and collected by frontline staff in partial lockdown is what works now. Work from home with the pickup drop of materials can bring in homeworkers into the creative manufacturing and logging in by mobile phone with frequent check-ins can ensure compliance to standards. This will continue post covid19 as women who can spend less than 8 hours of time a day and cannot come to a production centre can now work from home.

LIFE AFTER COVID19:

It is an opportunity to Reset business to **business NOT as usual** for the safety of human society and the planet in the next few decades.

For the planet and people to prosper:

01. Grow distributed creative manufacturing with aggregated value chains, promote key low carbon footprint vocations make migration unnecessary through a focus on rural job creation/ entrepreneurship and produce quality durable goods that are not part of the use and discard economy.

02. The Producer Company promotes Inclusive Entrepreneurship which will reduce inequality, shorten supply chains that are easily disrupted by shocks such as COVID19 and climate disruption, and strengthen Climate Change response.

Industree is scaling up its advocacy and policy change activities to strike while this iron is hot. If successfully scaled:

1. People are kinder.
2. Carbon footprints reduce and Nature restores rapidly.
3. LIFE can be more purposeful and prioritised around Family, Community and Planet before profit and self.
4. A large number of underserved underrepresented producers can be part of the organised sector.
5. Supply chains are de-risked and migration and spikes in unemployment reduced.
6. Provide investment avenues for more ethical investment in the responsible consumption and production economy.