

## **CO-CREATION AND PRACTICE LED CRAFT DESIGN: A TOOL FOR EMPOWERING ARTISANS**

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### **KEYWORDS**

Co-creation, Design thinking, Evolution and realization, Sustainability of local craft, Co-design

### **ABSTRACT**

Production and consumption are constantly changing in response to customer demands for high-quality goods while also taking environmental considerations into account. Local artisans that engage in traditional crafts have the opportunity to profit from the industry's transition to conscious and more mindful fashion. A thoughtful design that cares for the local and the global is finding greater acceptance with consumers.

Through this paper the authors narrate a story of co-creation and design through interventions in a craft cluster located in Barmer (a small town in the state of Rajasthan, India), where the authors have conducted design workshops with amateur designers and artisans to co-create using the local materials and resources, products that are 'local yet global' and sustainable.

Qualitative research approach has been adopted to explore how design thinking and environment awareness can affect craft innovation, empower the artisans and help them attain means of sustainable income. The research process involves semi-structured interviews with the artisans, field study and conduct of two weeks design and product development workshop. Participatory research approach that involves craftsmen and designers has been adopted with the aim to co-create with enhanced design value and aesthetic appeal, respecting the traditional craft practices and synergizing the same with the current technological advancements in fashion.

In the process of co-creation, the response of artisans' creative and technical ability was also documented by introducing processes of reflection on the significant aspects of their traditional craft practices and exploration of new ideas through evolution and realization. This enabled the artisans practicing embroidery, block printing and leather craft, to identify their challenges, strengths and to collaborate and innovate by developing products using local skills and resources. To validate the impact of the product development workshop, the products were exhibited and sold through Craft Bazaar (market) at a venue located in an upscale urban market.

The response from the consumers is testimony to the success of the workshop that helped artisans understand how design thinking and collaborative resources can help innovate and create value added products. The collaboration between a designer and regional artisans in various crafts has the potential to link local expertise with design thinking for value addition and commercial product development for specialised markets. The practice led craft design

workshop helped understand the potential for innovation, skill development, and interdisciplinary exchange within craft practice, as well as the need to embrace digital technologies. The study has been able to stimulate innovative and meaningful design outcomes that align with the needs and aspirations of the stakeholders.

## **INTRODUCTION**

India is uniquely one of the few countries in the world that has a very rich handloom and handicraft heritage. Traditional crafts and weaves are still being practiced widely in the country and even today, serve as a means of livelihood for many craftsmen and weavers. Every four hundred kilometers that one travels in the country, we can find a new craft/ textile that is a local identity of the community inhabiting the place. In the villages of India, we can still find a way of life that moves in rhythm with the natural world. Weavers, craftsmen, printers, and embroiderers have historically acted as the guardians of traditional craft practises in these locations, in clusters of crafts dispersed across the nation, by carrying on the legacy and producing goods and textiles for both domestic and foreign markets.

One such state situated in the western part of India, that is rich with its varied crafts being practised is Rajasthan- the land of Thar Desert. The craft sector of the region plays a pivotal role in shaping the economy and tourism of the state. With more than 25 crafts being practised in the region, the state has been successful in creating distinct identity through its indigenous design sensibilities. However, though the international tourism in Rajasthan has always been high and this in turn has been a source of encouragement for the textile and handicraft sector of the state, but the artisans are unable to capitalize on the numerous opportunities available to them due to lack of sensitization towards urban design aesthetics and understanding of the international consumer.

The study is particularly based in a cluster of Barmer which is strategically located in the western side of the Thar desert. The place is majorly hot and dry. The population primarily practices different crafts that form their source of income. These crafts have been passed on as a legacy from generations. Production and consumption are constantly changing in response to customer demands for high-quality goods while also taking environmental considerations into account. Local artisans that engage in traditional crafts have the opportunity to profit from the industry's transition to conscious and more mindful fashion. A thoughtful design that cares for the local and the global is finding greater acceptance with consumers.

According to Tiwari and Dhakad (2020), artisans and craftsmen have long been a vital component of the village economy, creating objects of daily necessities for the local market while incorporating designs and motifs that hold special meaning for their communities. It is seen that the craftsmen understand various techniques and the materiality of their chosen craft (the materiality here is being referred to in terms of physical properties). The design aesthetics of the products manufactured by these artisans are primarily an outcome of their cognitive skills influenced by their environment around. However, conceptual or expressive properties that are important for any product to be commercially viable, are individual instincts based on their limited understanding of urban and international markets and consumers. Therefore, this significance of this study rests in how co-creation and practice-led craft design are valued by these artisans as means of assisting them in identifying concrete ways to raise the caliber and visual appeal of their handcrafted goods.

## **MOTIVATION FOR THE STUDY**

The study has been conducted as part of cluster initiative being undertaken by a reputed Indian national design school with a primary goal to preserve Indian traditional craft and art forms by placing them in context and strengthening their ties to the community.

A craft practice's ability to survive primarily depends on the guilds' ability to recover economically. Reviving the market, according to Lucy Donkin, might encourage artisans to continue practising their craft and prevent the younger generation from choosing to pursue other careers. As the newer generation is opting to go for other career alterna-

tives, this is causing harm to the Indian craftsmen' guild system, which was a long-standing custom in our culture. (Coomaraswamy, 1909; Havell, 2007).

This study illuminates how co-creation and practice-led craft design can generate creativity in relation to the skill sets and the physical materials available locally and enable these craftsmen to design and manufacture aesthetical products that can find success in the urban markets.

The relevance of the study stems from the researchers' identification of the issues that craftsmen encounter and the difficulties presented by their inadequate understanding of consumers and markets, which have a negative impact on their creations. The artisans are found to be highly qualified in their workmanship but this quality alone is not good enough to enhance the marketability of their products. This is the underlying hypothesis of the study from where the researchers developed a methodology for co-creation suited to mobilize the local craftsmen into design thinking and developing products which are sustainable and thoughtful designs that care for the local and the global thereby finding greater acceptance with the urban consumers.

## LITERATURE REVIEW

The gap between the artisan and the customer is constantly widening, both practically and figuratively, according to Friel, M. and Santagata, W. (2008). This is seriously impeding the artisans' ability to serve their clients. In their 2014 article, Kapoor, H. and Mittar, S. noted that consumers are unaware of the value of these handcrafted goods and that machine-made goods compete fiercely with them. According to Shah, A. & Patel, R. (2017), the reason why traditional artisans discourage the next generation from entering their family business is because they don't think they would be able to reap the financial rewards of their hard work. In the majority of traditional societies, the relationship between the artist and the customer shaped designs of the products. Additionally, the craftsmen could create goods that satisfied the requirements and preferences of the local customer since they understood the socio-cultural environment of the latter. The traditional artisan-customer relationship is breaking down, and as markets for crafts become more urbanised and globalised, craftsmen are finding it more difficult to adapt their products to shifting consumer expectations. When the consumption of craft products was limited locally, both symbolically and literally, the artisan and the customer were unable to comprehend the same design language. Historically, artisans played a vital role in the village economy by creating commonplace, functional items that were targeted towards regional markets and featured meaningful designs and themes for the communities in which they worked. But as markets for handicrafts become more urbanised and industrialised, the traditional artisan-consumer relationship has collapsed, with traders taking the lead. Because of this, the generations-long experience and expertise of artisans is now essentially obsolete, and crafts are no longer a viable source of income. (Dasra et al. 2013).

The younger generation is becoming more interested in low-skilled employment because they earn more in cities. According to Sreenivas (2019), collaborating innovatorially between designers and craftspeople will aid in broadening the craft lexicon and reaching out to modern consumers. Collaborative creation between designers and artisans is a useful way to expand the craft vocabulary for exploring the modern markets, say Kapur, H., and Mittar, S. Expanding the craft lexicon and reaching modern consumers can be accomplished through collaborative innovation between designers and craftspeople (Tiwari & Dhakad, 2020).

As design co-creation has become a mainstream discipline, participatory design has proven to be a promising long-term practice. According to Jones (2015), co-creation has become the standard method of participatory engagement for design ideation, creative problem solving, and decision making. Co-creation, also known as co-design, has become a widely used term to refer to participation as creative and traditional participatory design processes have gained popularity in a variety of situations (Sanders & Stappers, 2008; Robertson & Simonsen, 2012). In general, co-creation refers to a design or business approach that is marked by supported involvement in planned multi-stakeholder interactions, like organized workshops and self-organizing engagement methods. According to Jones (2015), co-creation encompasses a broad spectrum of adept social activities that have the potential to significantly inform and improve organizational development, collaboration, and favorable group outcomes. According to Sand-

ers and Stappers (2008), co-creation is viewed in the design fields as a mindset for creative participatory practice. Co-creation mindsets are adopted after design techniques become more widely used.

Practice-based, practice-led, and artistic research are among the interchangeable terms for research incorporating creative activity. The interaction between the researcher, who also works as an artist or designer and whose creative process and artifact production are the focus of the reflection, is the fundamental idea of research that is identified with these names. Hannula, Suoranta, and Vaden (2005) stated that the essence of the matter is “the self-reflective and self-critical processes of an individual participating in the production of meaning within contemporary art, and in such a fashion that it communicates where it is coming from, where it stands at this precise moment, and where it wants to go.”

These days, design is seen as a cross-functional, multidisciplinary innovation activity that can promote competitiveness by helping to make sense of social concerns. Because of its capacity to mold concepts and turn them into workable and enticing offers for customers, it is regarded as a basic component of business innovation (Tiwari & Dhakad, 2020).

Fathers (2012) presented a recent work on design empowerment and participatory development in his doctoral thesis. Based on his research on the design education of South Indian artisans, he understands how it helps through relationship building, identifying local needs and basing interventions on them, making training relevant to current practise, empowering individuals to train others, and leaving behind materials to support ongoing new product development activity. The methodology of design education programmes must be interactive and based on user-understood investigations of available materials and resources.

## **METHODOLOGY**

Co-creation and practice-led craft design can be highly complementary in the design process. By involving various stakeholders in the co-creation process, designers can gain insights into users’ preferences, cultural contexts and needs. This collaborative approach helps in identifying opportunities for innovation and ensures that the final design solutions resonate with the intended audience.

Participatory research approach that actively involves craftspeople, designers, and other stakeholders has been used through workshops, collaborative design sessions involving constant interactive knowledge flow between the designers and artisans and observation of craft practices. The aim was to foster dialogue, knowledge sharing, and co-creation among participants.

The research had four phases after the secondary research. The first phase was to study the population of artisans in the region practising various crafts. Interviews with artisans, stakeholders and government agencies helped understand the dynamics of the trade, the challenges, the benefits available to artisans from government schemes and the artisans’ perspectives regarding the future of the craft in their region. As a part of the pilot research, the authors studied the background of each artisan participating in the workshop. The group of artisans chosen for the study remained gender neutral and the study did not exclude any men or women. The primary data collection stage involved multiple visits to the locale and close interactions with each one of them to establish a bond. A structured questionnaire was prepared to explore their experiences, perspectives, and challenges related to craft practices and to understand the design interventions done in the past.

In the second phase a SWOT analysis was conducted involving identification of challenges and aspirations through purposive sample of artisans who are practising the crafts for more than ten years.

Phase three consisted of development of collaborative workshop involving mix group of artisans practising different crafts, amateur design students and experienced craft design experts (the researchers). The findings from the questionnaires and the SWOT analysis had been instrumental in scientifically mapping the main concerns of the

local artisan groups. This helped the researchers to develop a definitive framework of the workshop to be conducted with the artisan group. Further, a group of thirty student designers were given an initial training and briefing to conduct survey and collect information about the cluster and the practising artisans. These students were from a design school of repute and were skilled enough to understand the technical details of product development and were able to steer designs of the products with clear understanding of the target consumers and the markets. Workshops involving eighteen amateur (student) designers and nine artisans, were designed as a platform for co-design and co-creation using design thinking as the tool that lead to creation of products (bags) using local resources and involving multi dimensional skills.

The workshop's results were tested in the fourth phase, which involved presenting the prototypes to a focus group of consumers in an urban setting with the sole aim of testing the success of the co-design workshop based on acceptance of the products by the consumers and the profits earned. The prototypes developed were displayed at the craft exhibition organized in the institute with focus group of consumers consisting of design students and faculty experts to get instant feedback. The exhibition was then opened to general public as a part of craft bazaar (craft market) where the artisans were able to sell their products and instantly assess the impact of co-creation workshops through the profits collected by selling the products.

## **PLANNING OF WORKSHOPS**

The chosen group of artisans were practising three different crafts namely a) block printing, b) embroidery and applique and c) leather craft. These artisans were primarily using local motifs and conventional patterns for making their respective products.

Traditionally, the embroiderers were using dyed cotton fabrics, mulmul and cotton organza as the base and were making products like lehengas (a local flared skirt like garment), unstitched suit fabrics, home furnishings like curtains, bedsheets, bed spreads, cushion covers. Mirror work was also being done by them.



Fig1: Sample of embroidery being practised by local artisans

The block printers were using locally sourced cotton and viscose fabrics. Traditional wooden blocks were being used for printing. The artisans were using natural as well as pigment dyes, based on the requirement of the orders received.



Fig 2: Sample of Block Printing being practised by local artisans

The leather artisans were primarily working with vegetable tanned camel leather and chrome tanned leather based on the orders received. They were also embellishing the leather products with colourful “ari” embroidery or the chain stitch. The leather products made from vegetable tanned leather were hand stitched using wax coated thread while the ones made in chrome tanned leather were being machine stitched. All trims were being procured locally and were of poor quality.



Fig 3: Front panel of a bag with embroidery being readied for hand stitching

The orders were being placed to these artisans by the local middlemen of the village who were selling the products in urban markets for local consumption. The artisans were being paid approximately Rupees Fifteen to Rupees Sixty per day based on their level of skill and quantum of task being performed. Each household where four members of a family were involved in the work (the male artisan, his wife and daughter/son who were able to contribute only half a day after attending school and helping in house chores), was able to earn approximately Rupees Fifteen to Twenty Thousand a month (USD 175-USD 235 per month).

Design thinking process was used as the main structural foundation for designing the co-learning workshops. As guides to the groups of amateur designers, the researchers were aware of their skill set and areas where these amateur designers could contribute during these workshops. However, the researchers were required to identify specific difficulties being faced by the craftspeople, define their problems, suggest creative solutions, create prototypes of the designs, test the ideas and refine them.

Figure 4 shows the initial planning of the workshop.

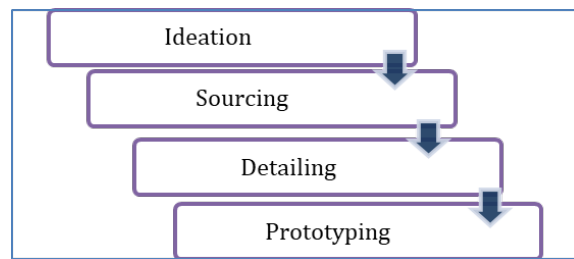


Fig 4: Workshop Planning

In order to find out what the participating craftpersons' needs and expectations were, interviews and surveys of focus groups were conducted by the help of amateur designers under the guidance of the researchers, before planning the workshop, with the sole aim to map and learn about craftpersons' existing skill levels, their challenges, areas of interest and possible scope of intervention. The initial informal interactions with the focus group also helped the designers to break the ice and made it easier to discuss with the artisans how they would be involved in the workshop. The artisans were able to give valuable inputs to design the contents of the workshop and set definite, quantifiable objectives for the sessions. Later, based on the outcome of the surveys and informal interactions, objectives were penned to specify the learning outcome of each session and what would be the tangible take away of each participant at the end of the day. A workshop schedule was then created that included clearly defined sessions and activities; this included a variety of engaging lectures, brainstorming sessions, group discussions, and hands-on craft activities. It was made sure that the contents of the sessions included a variety of topics like design principles, material exploration, and craft innovation. The sessions were designed to encourage the designers and craftpersons to collaborate and learn from one another by exchanging experiences, information, and skills. While the researchers' primary role was to lead and motivate the designers and the artisans throughout the workshop, offer insightful commentary and criticism. At the end of each day of the workshop, the groups would sit together to exchange ideas and opinions of the day's experiences, difficulties faced and recommendations for the products developed and for further interventions for prototype development.

Nine artisans and eighteen amateur designers were involved in the ten days workshop.

The participants were divided into three groups with three artisans (one embroiderer, one block printer and one leather craftsman) and six designers each.

The flow of the Workshop was designed on the following model:

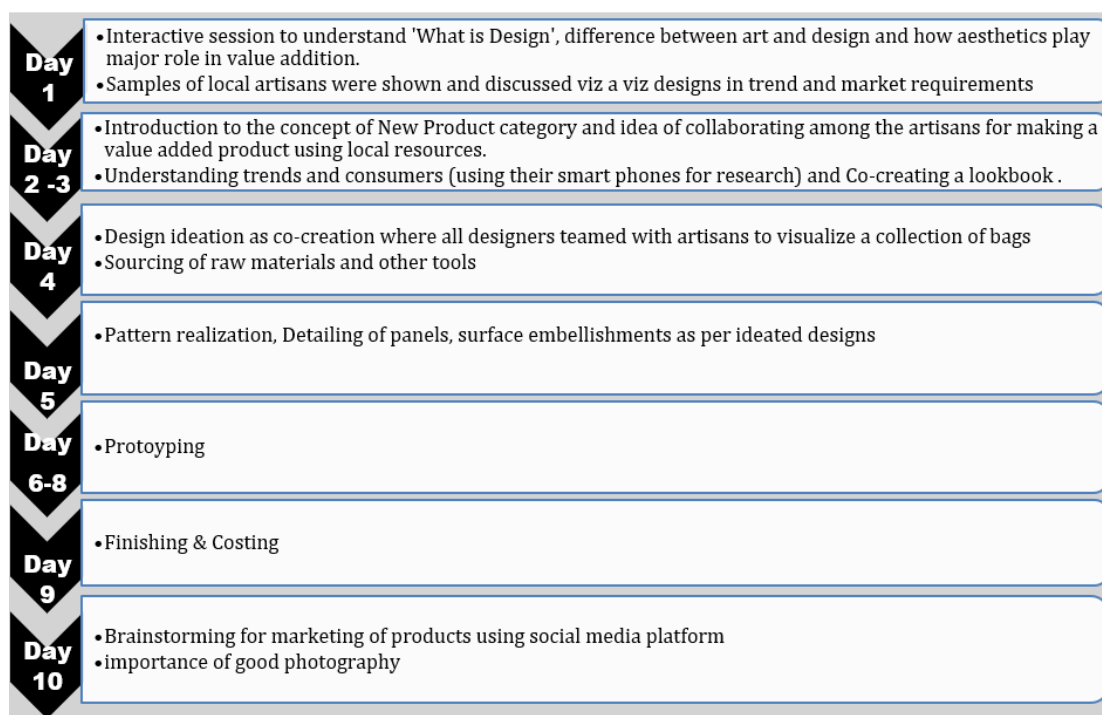


Fig 5: Flow chart detailing session plan for the workshop

The interactive sessions for the first three days were designed as ice-breaking sessions where the artisans and designers were made to feel comfortable with each other and as a group every individual learnt to appreciate mutual strengths. This helped them work together cohesively for the workshop as they understood how they could fill in the gaps as jigsaw puzzle by working together. The first three days were also utilized to give deep insight in the prevailing trends, colour and understanding design elements, target consumer, relevance of market and possible product categories that could be created to cater to the niche domestic and international market. The underlying design of the workshop was such that it maintained the authenticity of the crafts and provided value added unique products along with possible design variations. The initial discussions led to the following concepts for co-creating the prototypes during the workshop:

- deriving motifs from simple inspiration, creating a craft expression owned by the artisans married with the prevalent trends to be followed to make prototypes appealing to the urban markets ;
- different locally sourced fabrics to be used to creatively design the bags in combination with other locally sourced materials. This would help the artisans appreciate local resources and optimally use the same to create sustainable and aesthetically appealing products;
- introduction to simple bag patterns and construction types with variation in shapes and embroidery motif placement;
- introduction to importance of using good quality lining materials and trims;
- emphasis on importance of finishing in any product;
- Importance of calculating costing of products and vendor management;
- Importance of product photography for sale of products through online platforms





Fig 6 : Workshop in progress- Students interacting with the artisans

## RESULTS & DISCUSSION

The initial questionnaire and interaction helped the researchers and the designers prepare a SWOT analysis of the cluster/ the artisan group to be involved in the workshop. Through observations, the researchers mapped the dynamics of the place, how the artisans managed the purchase of raw materials, existing distribution channels operational in the cluster and the final shipment of the products from the cluster/ village. The Individual dialogues with the artisans helped the researchers to map their skills, their day to day challenges and areas that required improvement. Figure 7 below sums up the strengths, weaknesses, opportunities and threats of the artisans in the cluster.

<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>▪ Highly dedicated and easily available workforce of rural women</li> <li>▪ Crafts are purely authentic and have the ability to cater a global market.</li> <li>▪ It is more or less run by families inside their homes, thus easy to manage workforce.</li> <li>▪ The basic knowledge of technology and social media platforms such as WhatsApp and Facebook has helped them get in touch with more consumers and organisations.</li> <li>▪ Easy and local availability of raw material.</li> </ul>	<p><b>WEAKNESS</b></p> <ul style="list-style-type: none"> <li>▪ Over dependability on the middle men that connects them to the companies that actually brings in profits.</li> <li>▪ Poor living conditions such as few hours of electricity at times.               <ul style="list-style-type: none"> <li>○ Non experimental attitude</li> <li>○ Seasonal Orders and Business</li> </ul> </li> <li>▪ Lack of quality trims and raw material.</li> <li>▪ Repeat orders of same products stop them from exploring new techniques or colour schemes</li> <li>▪ Reluctance to explore new techniques/ patterns or work with new materials.</li> </ul>
<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>▪ Mechanised operations like Machine embroidery are cheaper, faster and are able to fetch more prices.</li> <li>▪ The younger generation is not really interested to carry on with the legacy of the craft.</li> <li>▪ The artisans are almost completely dependent on middlemen to provide them with work. Exploitation of the artisan by the middlemen connecting them to the companies and NGOs for work.</li> </ul>	<p><b>OPPORTUNITY</b></p> <ul style="list-style-type: none"> <li>▪ Orders are being received from reputed retail and designer brands through middlemen. These orders help the artisans get wider perspective and better understanding of the market trends.</li> <li>▪ Online media can help them reach a wider market for much better profits.</li> </ul>

Fig 7: SWOT Analysis of the crafts being included in the workshop for intervention

Based on the analysis, design intervention workshops were then designed for artisans to equip craftspeople with fresh concepts, methods, and perspectives in their trade, that combined design thinking, teamwork, and skill-building exercises. The goal of the workshops was to improve their craftsmanship as well as their creativity and prob-

lem-solving skills; helping them understand that experimentation and collaborations are necessary, the researchers along with the team of amateur designers explored the option of introducing a new product category using the locally available skill. The groups explored various product categories that included bags as one of the successful product explorations. These bags were constructed using block printed Fabric with placement embroidery and patchwork combined with leather and were stitched locally on flat bed machines.

Realizing a dire need for a better marketing platform for the products the designers introduced the group of artisans to sell their products using social media platforms such as Instagram and Facebook, which are easily accessible on smartphones. They were trained to use social media to not just sell their own products, but also study prevalent market trends and designs. The designers also designed visiting cards for them and trained the artisans to shoot their products aesthetically in order to upload them on the social media platforms.

Later these artisans were invited to the institute where these products were presented to a select target consumers. The artisans were asked to explain the products and talk about their learning outcomes from the 10 days workshop. They were given feedback on the products and discussions were held to understand how they would execute the learning outcomes of the workshop in creating products in future.

The designers helped the artisans to set up a stall during Craft Bazaar (a market place) at the institute where these products were sold and business cards and brochures were distributed to create awareness about the craft and the craftperson. All profits from the sales were given to the artisans. A glimpse of some of the product ranges combining block printed and embroidered fabrics with leather to create range of bags can be seen in the figures below (Figures 8, 9 & 10) .

#### GROUP 1



Fig 8 : Collection pf prototypes developed by Group 1

GROUP 2



Fig 9 : Collection pf prototypes developed by Group 2

GROUP 3



Fig 10 : Collection pf prototypes developed by Group 3

## CONCLUSION

The workshop had a positive impact on both artisans and amateur designers, leading to valuable insights and tangible outcomes. The study has been able to stimulate innovative and meaningful design outcomes that align with the needs and aspirations of the stakeholders.

The workshop employed design thinking principles. Artisans and amateur designers added value to existing crafts in the cluster using local resources. The exchange of ideas and open interactive sessions encouraged co-learning and co-creation as a major take away of the workshop. Participants learnt that bright colors were not always necessary for creating aesthetically pleasing products. This insight likely influenced the design and production process. Participants learnt the concept that “less is more” to enhance the aesthetic appeal of a product. Minimalistic designs were found to be more successful in the market and earned more profits.

The impact of the workshop has not been professionally evaluated at this stage. The workshop’s impact will be assessed more comprehensively over a period of time as the artisans are able to generate business based in the design inputs of the workshop.

However, the indicator of acceptability was informally measured by mapping the product sale. The sale of newly manufactured products resulting from the workshop is considered a significant indicator. The sales indicate the acceptability of the products in the urban market among the target consumers. Artisans gained practical experience through participation in the Craft Bazaar. The designs were identified as more marketable, allowing artisans to demand higher prices.

On the other hand, the amateur designers learned how to leverage timeless traditional skills of craftsmen. The focus was on creating handcrafted niche/luxury products that are both market-relevant and sustainable.

The workshop facilitated a connection between timeless traditional skills of craftsmen and the creation of market-relevant products. The workshop provided practical knowledge and experience that positively impacted both artisans and amateur designers. The emphasis on minimalism, color aesthetics, and market relevance influenced the approach to crafting products, potentially leading to increased market success and recognition of the value of traditional skills in contemporary contexts.

## ACKNOWLEDGEMENT

Due acknowledgement is extended to the students of Leather Design Department, National Institute of Fashion Technology, Batch 2017-21 for their participation in the workshop as amateur designers and for documenting the work that was part of their Craft Based Design Project taught by Prof. Usha Narasimhan, Ph.D. and Prof. Dr. Shinju Mahajan.

## REFERENCES

Balaram S (2005) Design Pedagogy in India: A Perspective. Massachusetts Institute of Technology, Design 21(4)

Coomaraswamy, A.K. (1909). The Indian Craft-man. Probsthain & Co.

Dasra, Edmond De Rothschild, 2013, Crafting Livelihoods;  
<https://www.dasra.org/assets/uploads/resources/Crafting%20a%20Livelihood%20-%20Building%20Sustainability%20for%20Indian%20Artisans.pdf>, accessed on 2.11.2023

Donkin, L. (2001). Crafts and Conservation: Synthesis Report. ICCROM.

M.Friel, W. Snatagata, 2008, Making Material Cultural Heritage Work: From Traditional Handicrafts to Soft Industrial Design; The Cultural Economy, 274-283.

Havell. E.B. (1907). Essays on Indian Art: Industry and Education. Natesan, Madras.

Hannula, Suoranta & Vaden 2005, Artistic Research: Theories, Methods and Practices;

Academy of Fine Art, Helsinki, Finland and University of Gothenburg International Monitor, Gothenburg, Sweden 2005; pg 10.

Jones, P. H. (2015). Design research methods for systemic design: Perspectives from design education and practice. In Proceedings of the 58th Annual Meeting of the ISSS. Berlin.

Mortati M, Vellari B (2003) Crafting social innovators: Designing Collaborative participative networked solutions in urban context, [https://www.researchgate.net/publication/322634120\\_Crafting\\_social\\_innovators\\_Designing\\_collaborative\\_participative\\_networked\\_solutions\\_in\\_urban\\_contexts/citation/download](https://www.researchgate.net/publication/322634120_Crafting_social_innovators_Designing_collaborative_participative_networked_solutions_in_urban_contexts/citation/download) accessed on 28.10.2023

Peter Jones, 2018, Contexts of Co-creation: Designing with System Stakeholders, Systemic Design, Volume 8, Springer Japan KK, part of Springer Nature 2018 P. Jones, K. Kijima(eds.), [https://doi.org/10.1007/978-4-431-55639-8\\_1](https://doi.org/10.1007/978-4-431-55639-8_1) accessed on 25.10.2023.

Robertson, T., & Simonsen, J. (2012). Participatory design. In Routledge international handbook of participatory design (pp. 1–18). London: Routledge.

Sanders, E. B. N., & Stappers, P. J. (2012). Convivial design toolbox: Generative research for the front end of design. Amsterdam: BIS Publishers.

Shah, A and Patel, R. (2017). Problems and Challenges Faced by Handicraft Artisans. of Research. Volume 6. Issue 1.

Sreenivas & Jose, 2019; Design Intervention As An Effective Tool For The Revival Of Traditional Crafts In Kerala, JETIR March 2019, Volume 6, Issue 3 pg 448-453.

Tiwari & Dhakad, 2020. Design Intervention & Craft Revival with Reference to Pichwai Paintings: A Contemporary Approach. Journal of Textile Science & Fashion Technology. 6(1): 2020. JTSFT.MS.ID.000628. DOI: 10.33552/JTS-FT.2020.06.000628.

Balaram S (2005) Design Pedagogy in India: A Perspective. Massachusetts Institute of Technology, Design 21(4)