

The neglected heterogeneity of artisanal practices in cluster development programs

Evidence from handloom clusters in Varanasi, India

Deepanjan SAHA, Assistant Professor, Dept. of Planning and Architecture, National Institute of
Technology Rourkela, India

Joy SEN, Ph.D., Professor, Dept. of Architecture and Regional Planning, Indian Institute of Technology
Kharagpur, India

Abstract

Developing economies in the Global South, particularly Asian economies, have increasingly drawn the attention of policymakers given their contribution to the export of creative goods has steadily grown at 12.1% annually over 2002-2011, surpassing that of developed economies. Cluster development programs have long been touted as effective tools for sustenance of artisan community-based creative clusters in developing economies. However, being generalized, these programs are inadequate in responding to the specificities of each artisan cluster. This paper presents evidence for the same by highlighting the heterogeneity embedded in handloom practices of Varanasi, which is one of the oldest centres of textile production in India. To illustrate the same, handlooms have been identified to be spatially concentrated into five clusters, based on location quotient, and measures of spatial autocorrelation. Further, employing hierarchical and non-hierarchical k-means cluster analyses, these handloom clusters exhibited heterogeneity in patterns of co-location of distinct 'schools of weaving', identified by key qualitative attributes of production. Prevailing cluster development programs for handloom clusters in Varanasi neglects such heterogeneity. Hence, based on such evidence, the paper recommends policymakers to recognize such fragmented character of artisan clusters while framing cluster development policy for creative clusters in developing economies.

Keywords

creative economy, artisanal production, artisan cluster, heterogeneity, co-location, handloom

1. Introduction

In the last three to four decades, cultural and creative industries (CCI) have increasingly drawn the attention of policymakers since participation in CCIs not only contributes to economic growth by generating employment and income but also strengthens social cohesion and improves the quality of life (UNESCO, 2013). Although an average annual growth rate of 8.8% was witnessed globally in the creative economic sector over 2002-11, developing economies in the Global South, particularly Asian economies, have recorded an exemplary growth, with their contribution to the export of creative goods having annually grown at 12.1% over 2002-2011, surpassing that of developed economies (UNCTAD, 2018). Unlike technology-intensive CCIs, like film-making, advertising, media, communication, predominating the creative economic sector in developed nations, a substantial share of CCIs in developing economies involve labour-intensive and cottage-based manufacturing of artisanal products, such as traditional crafts (Fahmi, Koster and Van Dijk, 2016). Thus, creative economic growth policies, which had first evolved in developed economies, cannot be applied to developing contexts without necessary appropriation (Goswami, Revi and Anand, 2013; Fahmi, McCann and Koster, 2017). Hence, there is a need to focus on

the creative economic sector, particularly artisanal practices, in developing countries and frame context-specific policies for the healthy growth of CCIs in such countries, thus ensuring sustainable socio-economic development of their citizens.

Like other manufacturing industries, CCIs agglomerate and exhibit clustered patterns. In fact, CCIs tend to be more clustered since these depend on many traded and untraded dependencies (Scott, 1997; Pratt, 2004). Although a creative cluster is not 'just another industrial or innovation cluster' (Mommaas, 2009, p. 54), it is considered that the cluster model of enterprises is a good starting point to examine the clustering tendencies of CCIs (Pratt, 2004). Given that labour-intensive manufacturing of artisanal products is largely household-based, several cluster development programs, particularly those initiated by the United Nations Industrial Development Organization (UNIDO) in late 1980s and early 1990s, have been intensively tested for artisan clusters in developing nations in South-East Asia and Latin America (Beddig, 2008, p. 28). However, considering a wide gap between industrial clusters from the developed and developing economies in terms of innovative trends, quality improvement, and working conditions, there is a need to prepare contextual policies for clusters in a developing country, which exhibit widespread informality, surplus of labour, and a distinct social structure.

Given this background on the specific need to design contextual policies for CCIs in developing countries and the prevalence of cluster development programs (CDP) for small industrial clusters in the same, the present paper attempts to assess the suitability of cluster development program in an empirical case of handloom production in Varanasi, which is one of the noted traditional cultural industries in India. It has been argued that the heterogeneity in artisanal practices, exhibited by distinct sub-groups of artisans, is neglected in the design of existing CDPs.

To achieve the same, the paper is divided into following sections. A brief review of literature on spatial heterogeneity of CCIs is presented at the outset. Following the section on data and methods, heterogeneity in practices of handloom production in Varanasi has been discussed. Next, handloom clusters in Varanasi, identified by the virtue of spatial agglomeration, have been delineated. Drawing from these clusters, patterns of co-location of handlooms belonging to distinct 'schools of weaving' have been identified to establish the presence of heterogeneity in handloom practices within each spatial cluster. Based on these results, the prevailing cluster development program has been assessed in the final section for their response to such heterogeneity.

2. Spatial heterogeneity in creative clusters

Although CCI firms do essentially cluster, varied types of CCIs cluster differently. Scholars have noted that existing research on spatial clustering of CCIs largely neglects the heterogeneity exhibited by different CCIs in their spatial distribution, and fails to recognize the peculiarities of spatial distribution of each creative sector and how clusters sharing the same geographical space distinctively affect each other's co-location patterns (Bertacchini and Borrione, 2013; Boix, Hervás-Oliver and Miguel-Molina, 2015; Cruz and Teixeira, 2015).

Design-related CCIs (e.g., fashion, jewellery, furniture) are located in both urban and non-urban areas; whereas service-related CCIs (e.g., advertising, architecture) and knowledge-intensive CCIs (e.g., media or broadcasting) are typically concentrated in metropolitan centres (Scott, 2000; Mommaas, 2009; Lazzeretti, Capone and Boix, 2012; Bertacchini and Borrione, 2013; Cruz and Teixeira, 2015). Alternatively, technology-intensive CCIs are typically concentrated in large metropolitan centres, to benefit from urbanization economies such as cultural diversity, access to urban infrastructure, services, and amenities; whereas labour-intensive CCIs demand localization but need not essentially cluster in large metropolitan centres and remain dispersed across large regions with small concentrations around

intermediate urban centres (Cruz and Teixeira, 2015). Lorenzen & Frederiksen (2008) identified that as mature cultural industries, which do not deviate much from long developed genres, tend to benefit from localization economies alone, it may suffice for them to work from non-urban areas. On the other hand, fledgling CCI, seeking to create new design spaces, offer product differentiation through novelty; hence, tend to cluster in urban areas.

Artisanal production is typically organized by artisan communities in small-sized industrial units, given its reliance on manual labour and hand-held tools. Such units are often household-based, wherein every member of the household participates. Given their strong manufacturing character, artisan units are typically clustered in both urban and rural areas (Bertacchini and Borrione, 2013; Fahmi, Koster and Van Dijk, 2016). Craft-based and design-intensive sectors in non-metropolitan areas represent a substantially large part of the Italian economy (Bertacchini and Borrione, 2013). Handicraft activities in Portugal are located near sources of raw materials or where craft activities are traditionally rooted (Cruz and Teixeira, 2015).

Even within a creative sector, researchers often fail to recognize the fragmented character of cultural production and differentiate the spatial patterns exhibited by distinct sub-groups of creative workers (Zhang, Kloosterman and Li, 2020). These limitations are attributed to aggregate statistics and standard industrial classification, which fails to neatly capture the differences between varied cultural occupations set within an industry. The use of aggregate statistics results from the lack of cultural statistics on creative industries or occupations at the lower level of territorial scales. Hence, there is a growing need to disintegrate the production value chain involved in various CCIs by recognizing the inherent heterogeneity of practices within a creative sector and analyse the spatial patterns of co-location of creative enterprises belonging to distinct groups. In this regard, Boix, Hervás-Oliver, et al. (2015) have proposed the following taxonomy of patterns of co-location of industrial clusters sharing the same geographical space, depending upon the number of centralities and intensity of urbanization economies:

- **Clouds** : Largest cities, metropolitan areas
- **Hubs** : Medium-sized metropolitan areas
- **Isolated hotspots / Bunches** : Non-metropolitan areas

3. Data and Methods

Varanasi being one of the oldest centres of textile production in India, handloom production in Varanasi has been selected as an empirical case. By generating an annual revenue of about 40 billion INR and employment for about one million people in the city-region, the handloom industry in Varanasi is one of the largest contributors to local economy and foreign exchange (Raman, 2013, p. 43). Recognizing the deep interrelationship shared between the place of production and the cultural product, *Banarasi* brocade and *saree* industry, based in Varanasi and its neighbouring districts, has been awarded a geographical indication tag since 2009 (Geographical Indications Registry, 2016).

Varanasi District has been selected as the territory under investigation (refer to Figure 1). The district is spread over 1,535 sq. km., supporting a population of 3,676,841 in the year 2011 (Census of India, 2011).

Based on literature reviewed and field observations, qualitative attributes of handloom production have been reviewed to select ones classifying handlooms into substantially sized groups representing distinct artisanal practices or 'schools of weaving'.

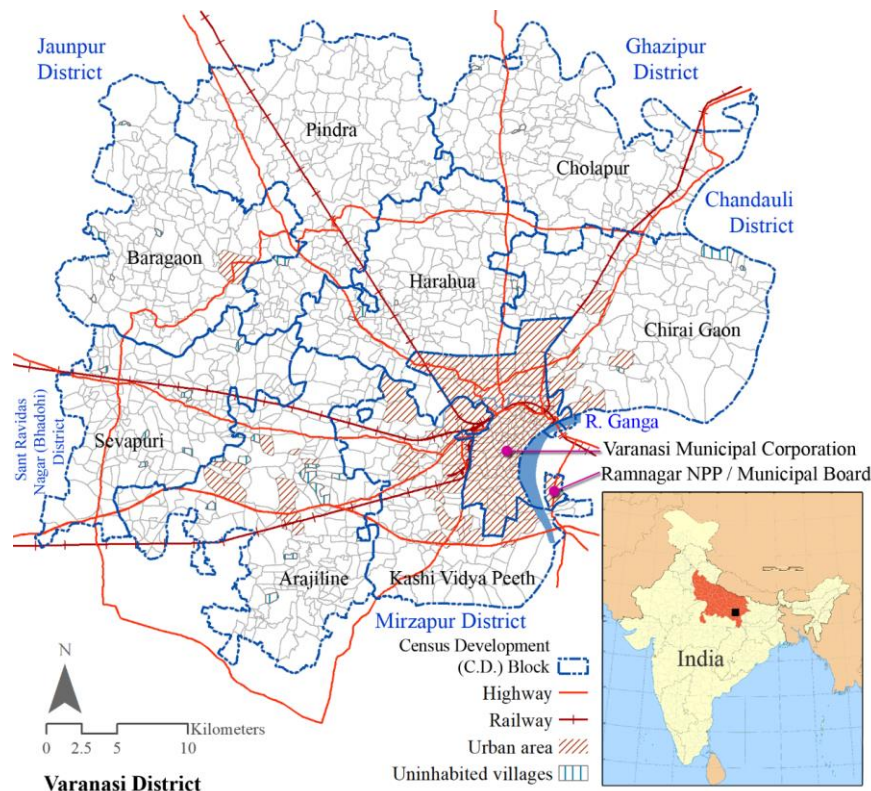


Figure 1 Location map of Varanasi District (Source: National Informatics Centres, adapted)

A two-staged research framework, comprising of the following stages, has been adopted to identify the patterns of spatial heterogeneity embedded in the empirical case of handloom production in Varanasi (refer to Figure 2):

- **Stage 1:** identifying **patterns of spatial agglomeration** of handloom units, i.e., **handloom clusters** based on location data of handloom weaver households (N=13,365) spread across Varanasi District
 - **Data source:** Baseline Survey for Varanasi Handloom Mega Cluster prepared by the Office of Additional Commissioner, Handlooms & Textile Industries, Varanasi Region, Govt. of Uttar Pradesh in 2015
 - **Key methods:** location quotient analysis on MS Excel, followed by spatial autocorrelation (global Moran's I statistic and Cluster and Outlier analysis on ArcGIS 10.8)
- **Stage 2:** identify **patterns of co-location** of groups of handloom units ('schools of weaving'), classified by select qualitative attributes of production (i.e., types of weaves and weaving techniques)
 - **Data source:** data on qualitative attributes of handloom production drawn from a questionnaire-based sample survey with handloom weavers (N=424) spread across the clusters identified in stage 1
 - **Key methods:** cluster analysis (hierarchical and non-hierarchical k -means) on IBM SPSS Statistics 24.0 to group spatial units with common specialization patterns into homogenous clusters

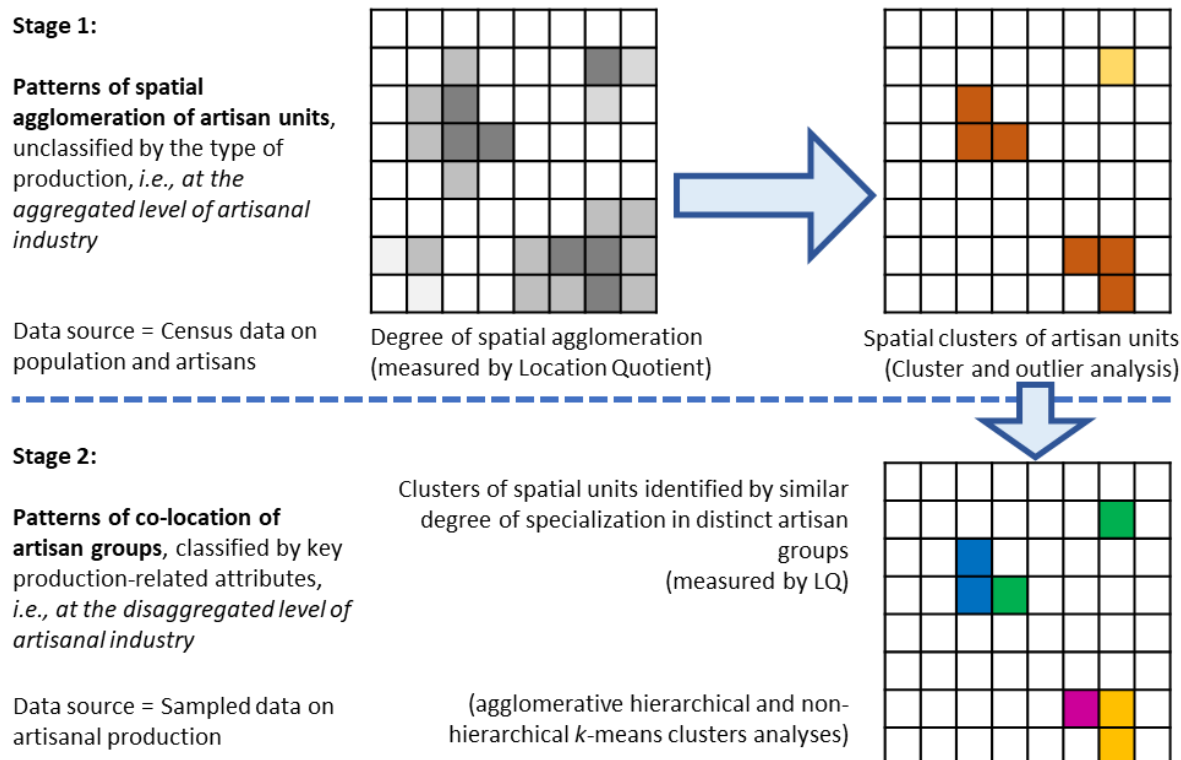


Figure 2 Research framework (source: author)

4. Heterogeneity in handloom production

4.1 Introduction to handloom industry in Varanasi

Since handloom production process in Varanasi and its organization has been described in detail in existing literature (refer Textiles Committee and HWA, 2007; Raman, 2013), the same has only been briefly mentioned here. Handloom production in Varanasi is essentially a community-driven household-based activity wherein roles of each member of a weaver household are clearly defined by their age and gender (Raman, 2013, p. 30). Weaver households essentially practice hereditary transfer of artisanal skills where training by apprenticeship starts at a tender age of eight to ten years. Besides weavers, the industry involves a large array of skilled artisans required at different stages of production, *i.e.*, dyeing and warping of yarn, designing, punching cards to fit into Jacquard machines, pressing and polishing of the woven product. Weavers and ancillary workers in Varanasi are essentially Muslim men belonging to the caste of Ansari. Such an overlap of occupational and kinship ties governs the creative networks active in industrial organization.

4.2 Attributes of handloom production

Handloom products of Varanasi may be broadly classified by the following attributes of the product and production process: type of product, yarn and fabric, designed motif, weave pattern, weaving technique, and loom (adapted from Textiles Committee and HWA, 2007; Basole, 2015 and field observations). Based on a sample survey conducted by the author with 424 handloom weavers in 2018, following distribution of handlooms was noted across the key production-related attributes:

- **Product variety:** About 83% handlooms were engaged in production of *saree* – a traditional garment of South Asian women, followed by dress material (11%), stole (3%), and other products (3%) which included home furnishing and traditional wall hangings.
- **Yarn variety:** A wide mix of pure, synthetic, and blended varieties of yarn was being used.
- **Design:** About 23 varieties of design motifs were employed with a skewed spatial distribution.
- **Weave:** About 55% handlooms were employing satin weave with the rest employing variants of plain (or *dudama*) weave.
- **Weaving technique¹:** About 58% handlooms employed *fekuwa* technique, 33% *kadhuwa* and its variants, and the rest 9% adopted a mix of the two.
- **Status of employment:** about 79% handloom weavers worked on contractual basis (CW), followed by loom-less weavers (LLW, 12%) and independent weavers (IW, 9%).

Drawing from these distributions, it may be inferred that handlooms in Varanasi can be differentiated into substantially sized groups by the type of weave employed and weaving technique adopted. Since switching between weave-types and weaving techniques requires acquiring new skill sets and re-setting of loom-apparatus, these attributes have been understood to remain essentially unchanged along the length of a weaver's career. Hence, weave-type and weaving techniques have been selected to classify sampled handlooms into distinct groups or 'schools of weaving'.

5. Spatial heterogeneity in handloom production

To identify heterogeneity in handloom clusters spread across Varanasi District, the first task has been to identify handloom clusters, followed by assessing the presence of heterogeneity within each cluster.

5.1 Delineation of handloom clusters

Considering revenue village, census town, or municipal ward in large towns as the territorial unit of analysis and location quotient (LQ) as a territory-specific indicator of spatial concentration, LQ has been calculated for 13,365 handloom weaver households (WHH) spread across 1,423 territorial units comprising the Varanasi District. With $LQ > 1.00$, handloom production is over-represented or spatially concentrated in 147 out of 269 (i.e., about 55%) territorial units housing handlooms, and only about 10% of all the 1,423 territorial units (refer to Figure 3).

Since the standard measures of spatial concentration fail to consider relative position and proximity (Chantelot, Peres and Virol, 2010), it has been complemented by the assessment of spatial autocorrelation on ArcGIS 10.8. The application of spatial data techniques is split into the following steps:

1. **Global spatial autocorrelation** (Moran's *I* statistic), to identify if the overall spatial pattern is significantly clustered, random, or dispersed.
2. **Local spatial autocorrelation** (Cluster and Outlier analysis or Anselin Local Moran's *I*), to locate and distinguish between groups of spatial units.

Considering *k*-nearest neighbours ($k=5$), the global Moran's *I* statistic (0.164) was found to be positive and statistically significant. Thus, the dataset exhibited strong positive spatial autocorrelation with respect to the location quotient of handloom weaver households, signifying the presence of handloom clusters. Subsequently, five handloom clusters were identified by employing cluster and outlier analysis, and the same were labelled as per the prevalent names, i.e., Alaipura, Bajardiha, Kotwa, Kardhana-Kallipur, and Raisipur-Sattanpur (refer to Figure 4).

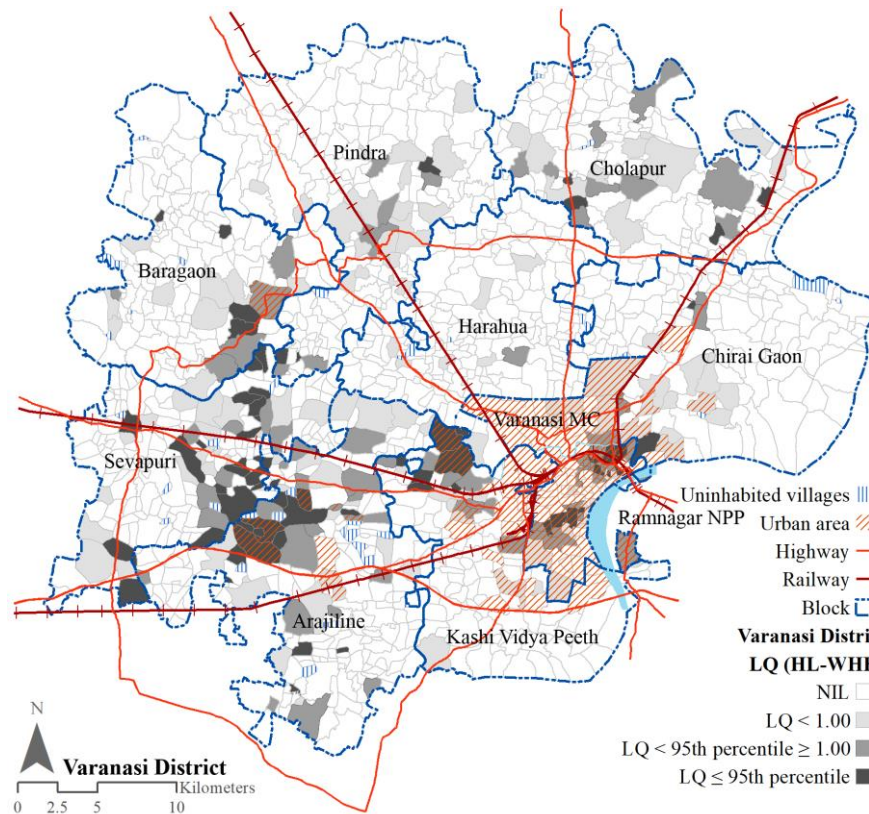


Figure 3 Spatial concentration of handlooms in Varanasi District (source: author)

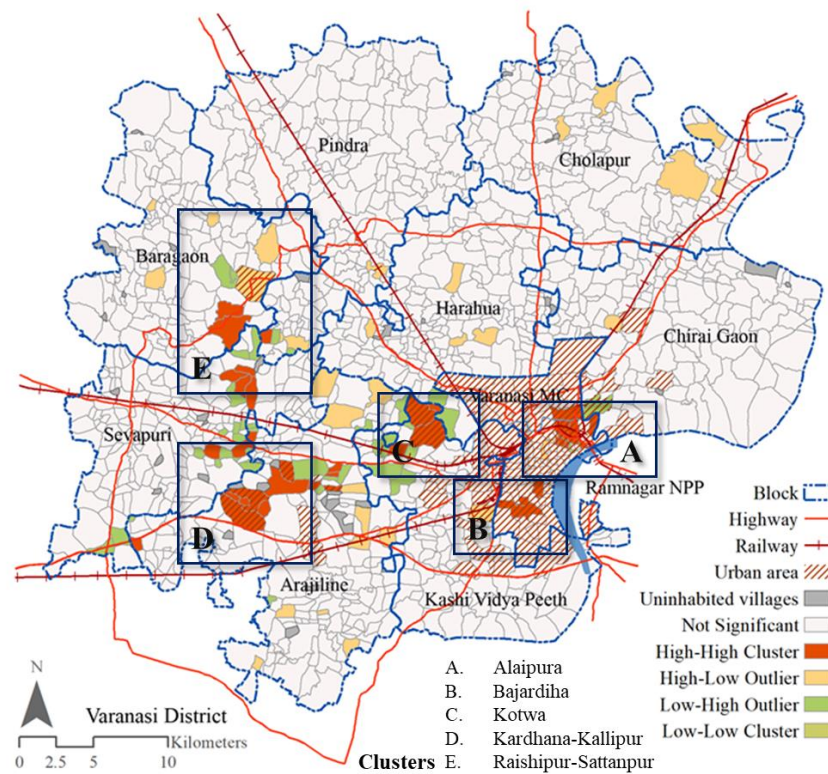


Figure 4 Handloom clusters in Varanasi District (source: author)

5.2 Spatial heterogeneity of handloom clusters

Factor-cluster segmentation approach was employed to assess the spatial patterns of heterogeneity or co-location of varied 'schools of weaving' or handloom practices, classified by weave-type and weaving technique, within the previously delineated handloom clusters. Since the association between the production-related attributes of weave-type and weaving technique was found to be statistically significant (Chi-square test of independence, $\chi^2 = 30.096$, $p < 0.001$), combinations of these two attributes were adopted to classify handlooms into the six mutually exclusive groups: *dudama-kadhuwa* (DK), *dudama-fekuwa* (DF), *dudama-mixed* (DM), *satin-kadhuwa* (SK), *satin-fekuwa* (SF), and *satin-mixed* (SM). Refer to Table 1 for the distribution of sampled handlooms (N=424) across these six combinations or 'schools of weaving'.

Table 1 Distribution of sampled handlooms across combinations of weave-type and weaving techniques (N=424) (source: sample survey, 2018, author)

			Weaving technique			Total
			<i>Kadhuwa</i>	<i>Fekuwa</i>	Mixed	
Weave	<i>Dudama</i>	Count	87	83	21	191
		%	20	20	5	45
	Satin	Count	53	162	18	233
		%	13	38	4	55
	Total	Count	140	245	39	424
		%	33	58	9	100

To assess the varying degrees of spatial concentration by each of the six handloom groups, location quotient (LQ) for each was calculated while considering 42 spatial units where from the samples were collected, after excluding units with less than three samples drawn. Spatial units highly specialized in DK handlooms were found to be primarily located in urban areas, particularly in southern parts of Varanasi city. Spatial units specialized in SF and SK handlooms were majorly concentrated in rural areas in western parts of the district. Spatial units specialized in DM and SM were relatively less in the count, with these being located close to units specialized in DK and SF, respectively, hence, DM and SM were excluded from further investigation.

Cluster analyses (hierarchical and non-hierarchical *k*-means) were employed to identify clusters of spatial units carrying similar degree of specialization in distinct handloom groups, and not being governed by spatial proximity. Location quotients for DK, DF, SK, and SF groups were selected as clustering variables. Agglomerative hierarchical cluster analysis was performed on IBM SPSS Statistics 24.0, with Ward's minimum variance method as clustering algorithm and squared Euclidean distance as interval, to identify the optimal no. of clusters as four. Accordingly, non-hierarchical *k*-means cluster analysis was performed to define the final groupings and their composition. Each of the four clusters revealed a specialization in either of the four handloom practices (DK, DF, SK, and SF). ANOVA test confirmed statistically significant differences between the cluster groupings. Kruskal-Wallis test identified these clusters to exhibit heterogeneous characteristics w.r.t. household density, share of contractual labour, and income levels.

Cluster groupings, thus identified, were mapped using ArcGIS 10.8 to visualize the spatial distribution and co-location patterns of four handloom groups spread across the territory of Varanasi District. Additionally, broad extents of previously identified five handloom clusters (labelled A to E in Figure 4) have been superimposed on co-location patterns to facilitate further interpretation (refer to Figure 5).

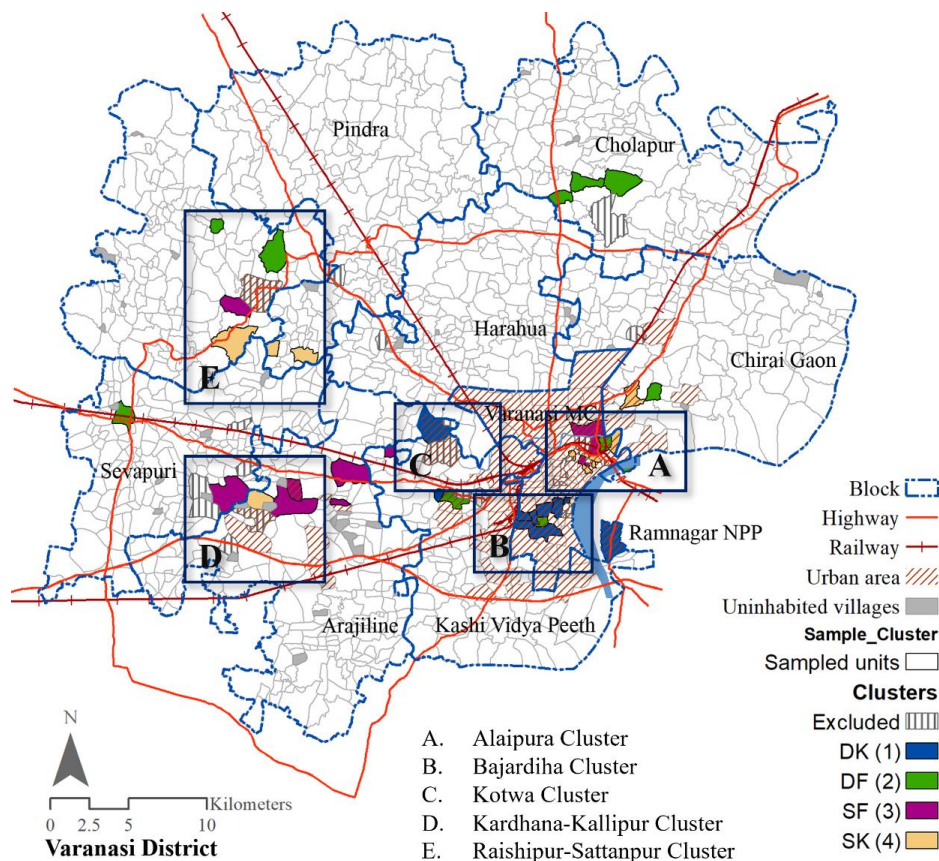


Figure 5 Patterns of co-location of handloom groups-DK, DF, SK, SF (source: author)

Drawing from the overlay analysis (refer to Figure 5), following inferences were drawn:

- Alaipura Cluster (A) was comprised of a mix of spatial units with specialization in *satin-fekuwa* (SF) and *satin-kadhuwa* (SK), except for Saraiya (ward no. 50) which was specialized in *dudama-fekuwa* (DF). Hence, the cluster was essentially a hub of weavers employing the satin technique.
- Bajardiha Cluster (B) was comprised of spatial units specialized in *dudama-kadhuwa* (DK), except for Jolha (ward no. 25) exhibiting a specialization in *dudama-fekuwa* (DF).
- Kotwa Cluster (C) was specialized in *dudama-kadhuwa* (DK).
- Kardhana-Kallipur Cluster (D) constituted units that were primarily specialized in *satin-fekuwa* (SF), with only one unit (Kundriya village) exhibiting a specialization in *satin-kadhuwa* (SK). Hence, the cluster was essentially a hub of weavers employing the satin technique.
- Raishipur-Sattanpur Cluster (E) was comprised of spatial units which were majorly specialized in *satin-kadhuwa* (SK), followed by those in *dudama-fekuwa* (DF).

Thus, co-location patterns revealed that handlooms, classified into four 'schools of weaving', were differentially concentrated in previously identified spatially agglomerated handloom clusters. Alternatively, each handloom cluster was differentially specialized in either singular or diverse handloom practices. For instance, *dudama-kadhuwa* (DK) group of handloom weavers was singularly concentrated in Bajardiha cluster, whereas *satin-fekuwa* (SF) and *satin-kadhuwa* (SK) were co-clustered in both Alaipura and Kardhana-Kallipur clusters. Thus, it has been inferred that there is heterogeneity in location decisions of distinct artisanal practices within the handloom industry in Varanasi.

6. Cluster development program for handloom industry in Varanasi

UNIDO model of Cluster Development Policy (CDP) was introduced in India in the mid-1990s with the objective of constituting clusters of artisans who would cooperate while competing (Beddig, 2008, p. 30). These clusters were expected to provide raw materials to artisans at subsidized rates, special benefits to cooperative societies, extend training to improve market intelligence, and others. However, such efforts have been grossly inadequate and piecemeal as an extensive array of artisans was unviable to be reached (Sarkar and Banerjee, 2007). Also, the policies have been mainly top-down, i.e., not effectively involving artisans in the policy-making process (Varman and Chakrabarti, 2011).

Handloom industry in Varanasi has received long-standing attention of policymakers since independence. Under the aegis of the Union Ministry of Textiles, Weavers' Service Centre (WSC) in Varanasi was set up in 1956 to function as a nodal agency disseminating welfare schemes benefiting the weavers in the district. The first Indian Institute of Handloom Technology (IIHT) was established in Varanasi in 1956 as a research and training institute. Under the Comprehensive Handloom Cluster Development Scheme (CHCDS), launched in 2008-09 by the Office of the Development Commissioner (Handlooms), Ministry of Textiles, Govt. of India, Varanasi was slated to be developed as a **Mega Handloom Cluster** with more than 15,000 handlooms (Handlooms, no date).

Later in 2015, CHCDS was subsumed under the National Handloom Development Program (NHDP). It led to the introduction of **Block-level Cluster** (BLC) Development Programme, which considered community development (C.D.) block (i.e., administrative sub-division of a district) as a unit. Following are the key responsibilities of BLCs:

- organize training programs in weaving, designing, and dyeing
- maintain depot of raw materials, particularly, yarn and dye, and sell them at subsidized rates
- assist weavers in marketing and connecting with traders and designers
- establish Common Facility Centres (CFC) with facilities for warping and dyeing

Accordingly, a set of nine Common Facility Centres (CFC) were established in seven blocks of the district, excepting Harahua Block which had negligible concentration of handloom weavers. As per the field study held in 2018, the benefits of the schemes had a limited reach. Although being subsidized, the quality of yarn and dyes made available at the CFCs did not meet the standards of the market.

Brief District Industrial Profile of Varanasi District, prepared by Micro Small and Medium Enterprises (MSME) Development Institute, mentions the following handloom clusters being facilitated by the Department of Handloom and Textiles, Govt. of Uttar Pradesh: Saraiyan, Bajardiha, Baragaon, Harsos, Jallalipura, Lallapura, Sarai Mohana, and Katehar, with each having 300 to 350 handlooms (MSME Development Institute, 2016).

Having studied the mechanism of laying out cluster development schemes and the list of identified handloom clusters, it may be argued that the above noted schemes have homogenised handloom weavers in Varanasi as a single block, thus, neglecting the inherent heterogeneity in handloom practices and their spatial dimensions. Such a practice of identifying artisan clusters, without considering the specificities of each artisan group, explains why 'one-shoe-fits-all' type of cluster development programs initiated by several governments in the past have not been very effective in addressing the peculiarities of the industry.

7. Conclusion

Although the development of cultural and creative industries (CCI) has been widely claimed as a driver of sustainable socio-economic development across the globe, the distinction between the character of CCIs located in developed and developing economies is yet to receive substantial attention. Consequently, creative economic growth policies, which have their origin in the developed world, need be contextually appropriated for CCIs in the developing world, whose contribution to global creative economy is steadily growing in the recent past.

Considering firms in CCIs cluster to reap benefits from agglomeration economies, cluster development program or policy (CDP) has been widely applied to creative clusters. However, a 'one-shoe-fits-all' model of cluster development program is less expected to cater to the growth of creative clusters since creative sectors exhibit heterogeneity in their spatial agglomeration and co-location patterns. The same has been tested in this paper by examining the character of handloom clusters located in Varanasi – one of the oldest centres of handloom production in India.

Following steps were performed to examine the case:

- Based on location data provided in Handloom Census for Varanasi District, handloom units have been found to be spatially concentrated in five clusters spread across the district.
- To further characterise these clusters, a questionnaire-based sample survey was conducted with 424 handloom weavers located in these five clusters. Based on a descriptive analysis of key qualitative production-related attributes, combinations of types of weaves and weaving techniques were adopted to classify handlooms into six distinct groups or 'schools of weaving'.
- Application of cluster analyses (hierarchical and non-hierarchical *k*-means) identified four clusters of sampled spatial units sharing similar degree of specialization in each 'school'.
- Overlay of the five handloom clusters (with handlooms being generalized) and the next four clusters, each carrying a specialization in a distinct 'school of weaving', helped identify spatial heterogeneity in location decisions of different 'schools' set within the handloom industry in Varanasi. While *dudama-kadhuwa* 'school' was essentially clustered in urban pockets, *satin-kadhuwa* and *satin-fekuwa* schools were found to be co-clustered in both urban and rural areas.

However, a review of the cluster development policies adopted for handloom clusters in Varanasi revealed that such nested heterogeneity in handloom clusters did not reflect in the prevailing delineation of clusters, which were instead aligned with administrative divisions of the district. Such failure to recognize the fragmented character of an artisanal industry might explain why 'one shoe fits all' approach of govt. led cluster development schemes have not gained much traction since their inception.

Hence, it is recommended that while drafting policies targeted at the growth of artisanal industry, instead of homogenising artisans in the policy perspective, policymakers shall recognize the specificities of every nested artisan group, differentiated by qualitative attributes related to artisanal production, as they exhibit spatial heterogeneity in terms of co-location. Community-building organizations (CBOs), co-operative societies, and non-governmental organizations (NGOs) shall be engaged in the preparation of local action area plans for artisan clusters tailored to the specific needs of each artisan group. Such cluster development programs, tailored to the peculiarities of each artisan group, are expected to effectively contribute towards the mission of creative economy-led sustainable socio-economic development of artisan communities and a healthy economy for the world.

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ⁱ Extra-weft techniques are typically used to weave motifs. In *fekuwa* technique, an extra thread is thoroughly passed in the weft. As governed by design, parts of the thread appear on the 'face' of the fabric and the rest 'floats' on its back. In *kadhuwa* group of techniques, each motif is woven separately by locally passing threads in the weft using smaller spools instead of a shuttle. Consequently, motifs of different sizes, shapes, and colours may be woven on the same fabric without having any loose threads 'floating' on the back (Textiles Committee and HWA, 2007, pp. 42–44; Tilfi, 2020).