

# Bridging roles of social innovations in rural development: craft initiatives from Kutch, India

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# Abstract

Business practices are often highlighted by development studies for their contribution to the resilience of the rural population. However, business contributing to rural development has to fulfill distinct characteristics and roles compared with urban counterparts. Commercial organizations that are solely targeting economic growth and lacking social aspects of development might not contribute to the overall sustainability of the region. This paper draws on three notions discussed in the literature -social innovations, sustainable rural development, and bridging organizations- to illustrate the relationship between business activities and rural capital. Two textile craft initiatives from rural India, Kala Raksha and Khamir, were investigated in order to trace the developmental roles and characteristics of business in rural. The research identifies a set of rural social innovations and elaborates on their five bridging roles contributing to the development of the region. Findings indicate that social innovations playing bridging roles have the potentials to contribute to the sustainability of rural enterprises and the development of the region.

Keywords: bridging roles, business models, rural development, social innovation

# 1. Introduction

The dramatic rise in the population of urban settlements has been a global phenomenon. According to the United Nations, almost 68% of the world population will be living in cities by 2050. The major reasons behind the urban migration in the last decades are rather economic. Availability of job opportunities and access to a wide range of services attracts more and more people towards cities while rural areas, especially in underdeveloped countries, continue to struggle with a lack of livelihoods, technology, and basic public services. Nevertheless, problems faced in rural areas are not homogenous. While in underdeveloped countries rural backwardness might be a part of the debate, in developed nations, issues such as automation of agriculture and farming activities are seen as critical aspects driving urban migration.

Though agricultural activities tend to lose economic viability in many geographies, farming still constitutes an important part of rural employment. The critical share of rural in the overall



sustainability of the world indicates that the resilience of cities is very much dependent on the existence of a resilient rural. Moreover, holding most of the natural reserves, rural areas in developing countries are fighting climate crisis and struggling to overcome adverse effects of globalization, which still keeps sustainable rural development at the political agenda (Ellis & Biggs, 2001; Pender et al., 2012; Yılmaz & Tolunay, 2007).

In the last decades, sustainable rural development approaches evolved in different forms, mostly from top-down to bottom-up initiatives, but often these approaches are focused on creating livelihoods for the rural population (Ellis & Biggs, 2001). Interpretations of the sustainable livelihoods approach specifically underline the critical role of entrepreneurship while bringing creative destruction and endogenous development theories into the debate (Krantz, 2001; Reinert & Reinert, 2006; Schumpeter, 1934; Scoones, 2009). Creative destruction is explained as a process of industrial mutation and a virtuous cycle of change in the economic structure which happens as the new continuously destroys the old (Reinert & Reinert, 2006). Today, fostering innovation and entrepreneurship is essential for most of the sustainable rural development practices. Particularly, neo-endogenous development approaches aim to mobilize rural resources through innovation and entrepreneurship (Atterton et al., 2011; Gkartzios & Lowe, 2019). Additionally, entrepreneurial initiatives enable resilience by increasing economic diversity. According to Steiner and Atterton (2015) rural businesses improves resilience (i) directly by creating local employment, availability of local products and services, (ii) indirectly by positive outcomes of increased employment such as reducing out-migration. This article focuses on the development of rural areas in developing countries while elaborating the discussion around neo-endogenous development approaches, rural enterprises and social innovations.

The positive impact of business and specifically social and inclusive business models on the reduction of poverty in developing countries were stressed by numerous papers and reports (Bayraktaroğlu, 2020; Borzaga et al., 2008; Nelson & Prescott, 2003; WBCSD, 2005). As the positive impact of local business is underlined by development studies, understanding the characteristics of rural enterprises has become more and more important. Though, agriculture is often accepted as the major economic activity in rural, non-farm employment is an important element of rural resilience and economic diversity. Increased consumerism and rapid technological changes compel us to rethink the agriculture-oriented understanding of rural business practices. Additionally, in the last decades, development plans solely focusing on farm employment have shifted towards more diversified models of livelihoods (Reardon et al., 2007). The strategy behind such a shift is not about reducing the role of agricultural production but on the contrary, increasing the resilience of the rural economy. According to UNDP (2014) resilience of a community help people dealing with crises and problems and in the context of rural development, resilience is about the development of institutions facilitating societal robustness (King, 2008).

Among all other non-farm livelihoods, craft production is still a potential economic activity for many rural communities. While rural crafts are strongly related to indigenous knowledge and regional resources, the success and revival of craft business often depend on vital connections of external networks. In order to survive in competition, craft enterprises need enhanced market knowledge and better production capacities. The aim of this paper is to improve understanding of how social innovations contribute to rural development. The paper uses bridging originations as a concept to define the role of social innovations and illustrates the linkage between social innovations and rural development through two cases from rural India. The first part of the article focuses on rural business and innovation, which is followed by a section describing rural social innovations and their bridging roles. Presented two cases illustrate and extend the debate on how social innovations enhance the sustainability and embeddedness of rural businesses.

#### 2. Characteristics of rural business

Although it is often associated with agricultural production and low population, the meaning of rural is a considerably complex term and there is no agreement on a single definition for all purposes (Gülümser, 2009). General criteria used for definitions include aspects such as population, proximity, degree of urbanization, principal economic activities and work commutes (Cromartie & Bucholtz, 2008; Hart et al., 2005). Often relative inaccessibility of goods and services, disconnectedness from external networks describe rurality. Similarly, absence of infrastructure and technology compound, unavailability of market information, and limitedness of human resources are common obstacles of rural business. However, social cohesion and having a sense of community signify strong aspects of rurality in the context of business. Diverse farm activities, tourism, homebased businesses, and creative industries are business models frequently established in rural areas.

Increased interconnectedness and interdependencies between rural and urban economies make it impossible to identify a rural business just by its location. For instance, business models located in urban areas sometimes play a critical role in the development of rural communities. While, those established in rural areas, due to their strong connection and dependency to urban networks, might show limited embeddedness to local. A hotel located in a rural area serving tourists, and not creating employment for the rural population would not be a genuine example for rural businesses creating value for the region. At this point, it's necessary to recall that rural is not a geographic but a social term. Thus, debates discussing common characteristics of rural businesses should go beyond the simple geographic identifications. For instance, Bosworth and Turner (2018) offer three criteria to identify a business as rural. According to the authors, a rural business needs to fulfill two of the following three criteria; serving a rural population, selling a rural product, and being located in a rural area. However, being identified as rural according to those criteria doesn't necessarily assure positive impact to development of communities.

The social cohesiveness of small communities dispatched from the urban corresponds to the character of rurality. Thus, business models focusing solely on economic growth and overlooking social aspects of sustainability often fail to create a long-term impact in local. In this perspective, in addition to commercial innovations, social innovations are also critical for the long-term success of rural businesses. Thus, this article moves beyond the general definition of business focuses on social business models and their bifocal goals. Social business models often embody both economic and social value production in the core of their business logic. The relative ratio of social and economic goals, and types of the business model may vary for each organization. For instance, UNDP (2014) examines socialness of business models in four categories: Corporate Social Responsibility, Social Enterprise, Inclusive Business and Mainstream Business. According to this categorization, it is expected that the density of social and developmental goals would be maximum at corporate social responsibility initiatives and minimum at mainstream businesses. Those definitions are obliged to be rediscussed according to rural development context. In order to examine the interaction between rural businesses, social innovation, and development, we need to gain a deeper understanding of the nature of rural business. In this manner, this article employs a broadly accepted rural capitals framework to study the role of business activities in rural development.

Rural capitals framework coined by Castle (1998) is a comprehensive tool to study rural and specifically helpful to elaborate notion of creative destruction in neo-endogenous development approaches (Chevalier & Vollet, 2019; de Fátima Ferreiro & Sousa, 2019; Gamito & Madureira, 2019; Losada et al., 2019; Rantamäki & Kattilakoski, 2019). Rural capitals framework identifies the following four capitals: man-made, natural, human, and social capitals. Natural capital includes all kinds of natural resources. In the case of business, sustainability, quality and efficiency of natural capital are essential for the success of a rural enterprise. Moreover, natural capital often facilitates certain types of commercial activities and innovation in rural business models. A strong and respectful relationship between inhabitants and natural capital creates a deeper understanding of

the environment and its use. Such a profound relationship would also reduce the alienation from the work. While rural businesses are expected to exploit natural capitals for being embedded in the region, in return, they should enhance the sustainability of natural resources too. Degradation of natural capital would eventually terminate the economic activities of an enterprise. Moreover, unforeseen change in the quality and quantity of natural capitals also creates complications in business processes.

Man-made capital is identified as physical or embodied capital including the built environment, infrastructures and available technologies. In the context of business processes, man-made capital directly influences economic performance and success. However, specifically in rural business processes, technological appropriateness has a catalyzer effect for long term attainment. If a technology is not customized for the needs and capacities of locals, it would not be embedded in and eventually would create a dependency on external actors. For instance, if adopted high-tech water dripping technology is too complex to use and maintain for locals, and its spare parts are not available or economically viable for rural farmers, it would create an additional dependency on external actors. Instead, a sustainable and appropriate technology would increase the resilience and independence of rural initiatives. While human capital is principally related to the rural population and their capacities; social capital refers to networking, trust and relationships within communities. Embedded and autonomous relationships that constitute social capital, eventually foster local economic development (Woolcock, 1998).

Another aspect often discussed in the literature is the embeddedness of a rural business. Greenberg, Farja and Gimmon (2018) in their article describe double-layered network embeddedness for enhancing the growth potential of the local businesses. According to the concept of embeddedness, economic activity is described through interests and a system of social relations. Embeddedness in a rural business network catalyzes actors to collaborate, to be exposed to information, to build trust between members and groups, and to spread ideas and innovation. Steiner and Atterton (2015) describe community resilience as a combination of social, economic, and environmental factors such as a viable local economy, social capital, and engagement quality of the local environment. Socially aware rural initiatives and their owners consciously use and enhance the main aspects of social capital such as co-dependence, reciprocity, and collective activity (Shucksmith, 2010).

In summary, similar to urban counterparts, rural business models also necessitate innovation and creative destruction. However, social, economic and environmental sustainability should not be overlooked in business processes. Thus, facilitating social innovations in addition to commercial initiatives would eventually enhance rural capitals. Moreover, created social value is critical for the embeddedness and resilience of rural businesses. The next section discusses the role and types of social innovations in the context of rural development.

## 3. Identification of Rural Social Innovations

The characteristics of rural entrepreneurship are different from urban due to distinctive market forces and consumer demand. Resource unavailability and the absence of consumers able to pay higher prices for novel products and services often promote an environment in favor of necessity-based entrepreneurs (Sonne, 2010). In this manner, rural entrepreneurs tend to stand on existent resources and knowledge which limits the innovation potential as experienced in urban organizations. However, the intrinsic value of local knowledge and resources, specific expertise in local circumstances, and availability of region-specific tacit knowledge enhance numerous types of innovations such as frugal innovation, jugaad innovation, Gandhian engineering (Basu et al., 2013; M. B. Zeschky et al., 2014), bricolage innovations and pro-poor innovations (Berdegu, 2005; Paterson et al., 2007; Sonne, 2010). Though such bottom-up innovations are often expected to be inadequate to reach global markets, they have individual aspects fostering local development. For instance, frugal innovations provide economically efficient, appropriate, adaptable, affordable and

accessible products and services developed to solve challenges specifically in BoP markets (Basu et al., 2013; M. Zeschky et al., 2011).

Innovation studies in the last decades brought several taxonomies, from technical improvements to novelties in management or social problems, to discuss the popular phenomenon (Garcia & Calantone, 2002). In general terms, innovation refers to the alteration of the present situation in order to offer added value. According to OECD (1999) innovation process has a series of activities including scientific, technological, organizational, financial and commercial. Innovation is a crucial aspect of any developmental intervention intending to yield from creative destruction. However, innovation processes in rural organizations do not necessarily strive for a scientific breakthrough. Without compromising from rural-urban cooperation, primary goals of innovation in rural should be enhancing wellbeing, livelihood opportunities, socio-spatial justice and resilience (Gkartzios & Scott, 2014; Lowe et al., 2019).

Employing the concept of rural capitals, it is expected that developed innovation should exploit different forms of rural capitals while local knowledge has to be translated and shared between actors (Bayraktaroğlu, 2020). In this sense, social capital and quality of social networks emerge as a critical aspect in the utilization of resources (Bosworth and Atterton, 2012). Moreover, when innovations lose their connection with the local social needs, they refrain from embeddedness. Thus, not only the technological and commercial but also social aspects of innovations are essential to be discussed in the context of rural development. In this viewpoint social innovation acts as a bonding concept and in this article the bridging roles of social innovations are underlined to link rural enterprises and sustainable development.

Social innovations are often defined as a better, more sustainable or more efficient alternative (Howaldt & Schwarz, 2010; Hubert, 2010; Murray et al., 2010; Phills et al., 2008; White, 2008) that seeks behavioral change in the community (Jegou & Manzini, 2008), contains a clear social purpose (Cajaiba-Santana, 2014) in order to meet unmet needs (Cajaiba-Santana, 2014; Phills et al., 2008; Pol & Ville, 2009). United Nations Conference on Science and Technology (UNCSTD) coins three categories for the definition of social innovations:

- What it is definitions focus on innovation as an outcome. In such a definition social innovation can be a law, a social network, a profession or training, a value or a norm.
- Who can make it definitions focuses on the initiators of social innovations. In this case, actors might be entrepreneurs, policymakers, NGO's, managers and so on.
- How to make it definition focuses on the process of social innovation and comes up with definitions such as top-down, bottom-up, systematic or trial and error.

Social innovation is a distinct type of innovation that can occur in any sector and brings measurable improvements to existing structures, which are often context-specific and multi-layered. They change social relations with regard to governance, enhance societal resilience, and increase beneficiaries' socio-political capabilities and access to resources. However, those definitions don't really provide a clear distinction between profit-seeking business innovations and social innovations. One may easily claim that almost all product or service innovations seek to satisfy the needs and wants of consumers. In this manner, they all tend to meet unmet needs and aim to improve the quality of life for as many people as possible. The literature stresses that genuine social innovations don't really focus on the need that can be satisfied by market forces. On the contrary social innovations target problems neglected by the private or public sector (Borzaga & Bodini, 2014; Pol & Ville, 2009).

In any case, it is still hard to put clear borders between pure social innovations and commercial innovations. Frequently the initiator of social innovation, either from a not-for-profit or for-profit organization, fosters both commercial and social innovations together by providing bifocal changes (Pol and Ville 2009). While competitive forces are the main drivers of commercial innovations, social

innovations are often shaped with and for the community. In such a case society act as both the innovator and the receiver of the value.

Issues dealt with social innovations vary in different parts of the world. For instance, in Europe, austerity, budget cuts, unemployment, aging, migration, and climate change are common unsolved problems. Those issues are not profitable enough for the business to focus on while often the public sector is not capable to address them adequately (Pisano et al., 2015). In such a situation new structures and hybrid organizations are established by the collaboration of civil society and other sectors (TEPSIE, 2014). In the context of rural development, pure social innovations are frequently conducted by government and multinational development agencies. Such direct interventions often solve problems in short term but do not necessarily increase local capabilities to create long-term successful entities. This paper tries to draw a linkage between rural enterprises and developmental efforts through social innovations.

Social innovations might be tangible or intangible interventions. For instance, one of the most frequently discussed social innovation The Grameen Bank is a type of organizational innovation aiming to solve a common problem of inaccessibility to financial support. Microcredit in this manner is a new definition and change in the organizational structure of banks to make their services more inclusive. The introduction of new technology such as water wells established in arid habitats would be a tangible example focusing on a fundamental need. In the context of rural development, Butkevičienė (2009) identifies numerous possible social innovations, which are:

- · New services
- New education courses for rural people
- New ways of farming such as ecological farming
- · Formation of local action groups
- · Electronic social innovations; public internet access points, digital promotion and advertisement
- The change in attitudes
- · Consolidation, community development, making things together
- New knowledge for making a profit
- Environmental protection
- New organizational forms
- · Improvement of life quality

Enhanced by tacit and explicit local knowledge, social capital and strong social networks improve the impact and emergence of potential social innovations. In this manner, rural enterprises can act as change agents of social innovations. This article applies the concept of bridging organizations to further elaborate the linkage between social innovations derived by rural enterprises and development efforts. Rural enterprises are expected to exploit rural capital while developing social innovations and bridging roles work as an organizing concept to discuss the links between social innovations to rural capital.

The concept of bridging organizations is discussed in adaptive governance literature. Bridging organizations are often highlighted with their capacity of dealing with uncertainty by fostering collaboration and trust between actors, and linking local communities with governments (Brown, 1991; Hahn et al., 2006; Ness et al., 2007). Moreover, bridging organizations foster the exchange and translation of knowledge between local and extra-local actors. According to Brown (1991) bridging organizations also works as a facilitator of the establishment of local organizations, horizontal linkages, grassroots influence in policy disseminating new visions, and organizational innovations. Castro-Acre and Vanclay (2020) in their study discuss the following five distinct roles bridging organizations play as social innovation initiatives for rural development.

The network enabler role is identified as creating a linkage between actors and networks interested in the development of the region. In this sense fostering collaboration in vertical and horizontal levels arises as central for the bridging function. Moreover, diversity and strength of network connections influence the economic and social success of business models. The more an organization infuses in distinct networks, the better utilizes knowledge flow. The knowledge broker role provides a forum for knowledge sharing, creation and translation. Organizations and actors identify different qualities of local knowledge and exchange translated knowledge between nodes of the network. In an innovation process, knowledge brokerage plays a key role in developing novel ideas. Similar to knowledge brokering, the resource broker role is related to enhancing a wider network to identify, provide and transform local and extra-local resources. Resources vary from tangible to intangible entities such as raw materials, development funds, agricultural products or traditional knowledge of making. Bridging institutions move beyond their self-interests and focus on the overall benefit of as many actors as possible. In this perspective, they understand the needs and expectations of all participants of the network to reach balanced transactions. The transparency and conflict resolution agent role is described as a part of organizational governance. Authors exemplify this role as project leadership, fair decision making, solving individual problems transparently, and convincing all actors of the network in the decision-making process. Organizational social innovations enhancing collaborative decision-making processes might realize this role. The shared vision champion role provides alignment of actors, knowledge, resources, goals, strategies and aspirations. Organizations often play this role by the introduction of training and educations, inclusive strategies, trademarks, and movements.

## 4. Methodology

Rural enterprises targeting regional development and having either commercial or social purposes in the core of their business logic has to conduct social innovations playing bridging roles. In order to discuss social innovations and corresponding bridging roles, this paper focuses on two successful examples established decades ago in rural India. Struggling with economic problems and political conflicts, India is a remarkable country with its unique socio-cultural fabric. The second-largest populated nation of the world encompasses a vast array of geography, history, and culture. Craft practice survives as a response to overcome the daily problems of the underserved rural population. Moreover, throughout history, India has employed numerous development approaches to improve the livelihood potentials based on craft to initiate sustainable rural development. Thus, two craft initiatives from rural India were chosen for this article. The cases discussed in this paper were first presented as a part of the Ph.D. research in 2014 (Bayraktaroğlu, 2014). The dissertation focused specifically on the designers' roles in enabling social innovations in seven rural initiatives practicing different craft traditions and facilitating sustainable rural development. However, for this article, two cases were selected and revisited for elaborating the rural innovation debate within the light of a new concept 'bridging roles'.

The case study method is an appropriate and frequently used approach to discuss and identify a phenomenon (Stake, 1995) such as the complex and unique nature of social innovations enabled by organizations in India. To understand the roles, capabilities and network of the organizations, several data collection methods were employed including face-to-face semi-structured interviews with key people, archival research, and personal observations. Selected cases are well known best practices creating social and economic development for local people. Moreover, they constitute the key actors of the craft ecosystem of the region. To have a comprehensive understanding of each business model, the analysis of collected data realized through the use of SWOT analysis, Activity System Maps, Business Model Canvases. and Actor-Network Maps.

The research focuses on the business models and actors of the reviewed two initiatives which are both not for profit organizations. The first level of analysis focuses on business models and strategies, the second level of analysis focuses on the craft network as the relationship of actors.

SWOT analysis reveals the overall strategic position of an organization through identified strengths, weaknesses, opportunities, and threats. Activity System Map, coined by Porter (1996), elaborates strategies and activities in a relationship model which allows examination of the logic of a business model. During the analysis phase, SWOT and Activity System Maps were followed by Business Model Canvas which were used to gain a better understanding of each organization. Osterwalder and Pigneur's (2011) Business model Canvas is a practical and effective tool to examine and visualize the relationship between business logic, resources, value propositions, and customers.

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## 5. Bridging Roles of Local Craft Initiatives

Kutch, the largest district of India, is well-reputed with the great salt desert and rich handicraft traditions. The region is located at the Pakistan border of the country where the intersection of cultures and communities creates the unique socio-cultural fabric of the region. Inadequate economic activities of salt production and cement industry don't truly create livelihood opportunities for all inhabitants. In this manner craft production stands out as a prominent economic activity. The region takes its share from funds supporting the establishment of various organization types driving the craft sector. Another reason for the grants in the last decades was governmental efforts aiming to bind up wounds of the 2001 dated massive earthquake which heavily devastated the region.

Among all variety of Kutchi craft practices, textile artisans are well accepted by national and international markets. World-famous Kutchi embroidery craft had been mainly practiced by women and passed from generation to generation. The commercialization of handcrafted textile products of the region had been an important income generation activity since the 1960s. Especially after the earthquake, in order to survive, locals had offered their family heritage to local markets. Since last decades, diverse types of business models established in the region aiming to mobilize local artisans and to exploit rural capitals. This article focuses on two not for profit organizations maintaining a unique ecosystem of social innovations and development in the region.

The first organization, Kala Raksha was founded in 1993 as a not for profit organization aiming to preserve traditional arts and crafts. The organization's innovative branch Kala Raksha Vidhyalaya aims to support local artisans with formal design education. The school has been recognized by UNESCO's Artists in Development Program and received financial support from the world. Kala Raksha works with hundreds of artisans from seven communities living in 25 different villages. Additionally, the founder and former head of the organization, Judy Frater, was awarded an Ashoka Fellowship in 2003, the Sir Misha Black award in 2009, and The Pillar of Hindustani Society award in 2009.

Judie Frater, the founder of the organization, shows an immersive dedication to the preservation of local embroidery and craft culture since the 1990s. The organization established a resource center and a museum in which continuous research and documentation projects are conducted. Moreover, Kala Raksha's key activities include developing marketable products and providing artisans with links to external markets for generating regular income. In this manner, the organization doesn't replicate traditional designs and goes beyond them by employing continuous product innovation so that acts as a fashion brand. The initiative even conducts regular exhibitions in big cities to increase brand value. The design team of Kala Raksha focuses on analyzing market trends and using resources to answer those trends with marketable products. At this point, it is necessary to underline that Kala Raksha keeps its focus on traditional motifs and techniques to fulfill its main goal of preservation.

The second initiative, Khamir, was founded as a joint initiative of Nehru Foundation for Development and Kachchh Nav Nirman Abhiyan in 2005 with the goal of being a platform representing and fostering Kutch Craft Heritage as a whole. Khamir expands its focus beyond embroidery and textile craft by embracing all traditional handicrafts of the region including leather,

metalwork, pottery, printed and hand-woven fabric, namda and rogan painting. Khamir works with diverse artisan groups and focuses much more on product innovation. Being a part of a large network composed of various actors, the organization tries to promote local craft for generating income and expanding its developmental influence on locals through social innovations. Both organizations exploit rural capitals and enhance the development of the region by the introduction of numerous social innovations (Table 1).

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Table 1 Identified social innovations

Types of Social Innovations	Kala Raksha	Khamir
New services	-Craft tourism.	-Craft tourism. -Designer residencies. -Craft studios. -Raw materials depot
New education opportunities for rural people	-Design courses for artisans to increase their capabilities.	-Training and education for artisans. -Fundamental education for children.
New and sustainable ways of farming		-Introduction of Organic Kala Cotton. -Supporting the use and conservation of plant- based dyeing. -Use of dye-free camel wool.
Formation of Local Action Groups	-KARVADA (the designer artisan alumni group)	-Supporting establishment of local Self-Help Groups
Electronic social innovations	-Online resource databaseWebsites	-Online exhibitions. -Websites
Attitude changes	<ul> <li>-Change in attitudes of artisans through increase in the pride of craft making.</li> <li>-Positive change in young generation's perception of craft.</li> <li>-Co-working with professional designers.</li> </ul>	-Increased pride of artisanship. -Co-working with professional designers.
Community development	-Artisan designer community	-Involving local people and civil initiatives into the innovation process restores the community linkages.
New knowledge for making profit	-Craft tourism. -Introduction of new garment designs using traditional embroidery and motifs.	-Craft tourism. -Introduction of new designs, new materials used in textile production. -Organic cotton farming
Environmental protection		-Supporting organic farming. -Using recycled plastic as weaving material. -Supporting use of natural dyes.
New organizational forms	<ul> <li>-Involving artisans in decision making process for design, marketing and fair wages.</li> </ul>	-Relationship with designers to involve them in the innovation process.
Improvement of life quality	<ul> <li>-Income generation and education opportunities for rural community.</li> <li>-Development activities aiming to improve health conditions.</li> </ul>	<ul> <li>-Income generation activities through employing artisans, training and employing them in the organization.</li> <li>-Social security programs, health and safety improvement activities.</li> <li>-Supporting artisans with finance and credits.</li> <li>-Supporting appropriate technology development.</li> </ul>

Both organizations contribute to the development of the region by interweaving clear business purposes with goals to improve the needs of the local population. In this manner, listed social innovations mostly have bifocal character supporting economic and social developments. Moreover, both organizations manage to conduct a sustainable relationship between business goals and rural capitals. The listed social innovations (Table 1) are interlinked with vertical and horizontal networking, business practices, sustainability interventions and capability improvements. The next part of the paper employs a bridging role as a framework to discuss how identified social innovations contribute to sustainability.

## 5.1. Network Enabler Role

Connecting actors and networks might be the essential role of any rural enterprise targeting sustainability. Actors who are either interested in the development of the region or simply benefiting from being a part of the network seek access points to the ecosystem. Both organizations discussed in this article, Kala Raksha and Khamir, have strong network enabler function for the ecosystem. In this ecosystem, major actors interested in the development of the region are local and national governments. But many other actors including designers, universities, artisans, and fashion brands enter the ecosystem through the access points provided by local organizations.

Primary access points of the network are physical facilities such as museums, design schools, resource centers, residencies, workshops and shops. Moreover, the websites of the organizations extend the range of the network for a wider audience. Locals find opportunities to interact with extra-local actors through the network. For instance, one of the interviewed hand-looming artisans educated by Kala Raksha design school was invited by a European textile design education institution to conduct workshops there. In this example, the artisan designer education as a social innovation provides new capabilities also enables artisans to lift up their community by connecting other actors. Through education opportunities, both vertical and horizontal linkages emerge in the innovation network of the country are important catalyzers for artisans. Other social innovations provided by both organizations are touristic facilities such as museums, conducted workshops, residencies and shops. Those facilities both create income for the organizations and also increase awareness about the region and its values.

## 5.2. Knowledge Broker Role

Knowledge brokerage is a critical function in a successful innovation process, especially for the development of new products and services. Although craft practice is often understood as a non-innovative process of repeating old traditions, on the contrary, innovation is a crucial driver to survive traditional crafts and retrieve them from being mere souvenirs. India is a large country in which different layers of culture lived simultaneously. The western way of living goes hand in hand with traditional lifestyles. Especially in terms of fashion products, the market is quite heterogeneous and highly competitive.

Both Kala Raksha and Khamir put special emphasis on research and documentation. Their efforts for decoding, archiving and exhibiting local values including traditions, motifs, the evolution of products and endangered craft processes; provide the fundamental knowledge base for any innovation and economic activity utilizing craft production. Kala Raksha offers a digital version of their archives to spread the knowledge while Khamir presents well-curated and informative exhibitions and video documentaries offered at online and offline platforms.

Kala Raksha has a strong focus on the preservation of traditional artisanship and archived motifs. However, the organization recognizes the fact that in order to have a share from the contemporary market, they have to alter traditional products. In this manner, the main knowledge brokering role happens through the innovative organizational structure and education facilities. First of all, the artisan designer education facility attracts knowledge from faculties of highly reputed design universities. Continuously nourished knowledge flow from market and research institutions to the organization and artisans through this channel. Interviewed intern students highlight how the translation of knowledge between designers and artisans happens through delicate and fragile efforts. Such collaborations take weeks and sometimes months depending on the internship

program of the university and the structure of the conducted project. And during these periods of time, designers and artisans develop a unique new language through the act of making. Both organizations act as the facilitator of this process of knowledge sharing, creation and translation. Moreover, Kala Raksha has an organizational innovation to involve artisans and designers in the new product development committee.

Page 113 Khamir has a relatively deeper thirst for innovation compared to Kala Raksha. Thus, they play the knowledge broker role in numerous channels. The offered craft studios and residency program allowing enthusiastic designers and artists to experience local craft practices and to work with artisans in person. Outputs of such collaborations are often novel and marketable products. Khamir promotes merging and interacting with distinct craft practices on products, which also facilitates artisans to learn from each other. Additionally, Khamir focuses on the co-development of appropriate technologies that are low cost, usable, effective and bottom-up grassroots innovations.

## 5.3. Resource Broker Role

The availability of rural capitals and financial supports are crucial resources of the ecosystem. Both organizations exploit and enhance accessible resources such as traditional craft practices, artisan as human capital and grants to create value while identifying and providing new ones. Nevertheless, Kala Cotton project is a comprehensive example of how Khamir acts as a resource broker by introducing social innovations such as organic farming and attracting grants for the project. In the history of the region, farmers harvested local cotton species adapted to the arid climate of the region for centuries. However, the local cotton species and the conventional way of cotton production had discarded by the introduction of more yielding imported cotton seeds which require a lot more water during farming. Throughout the time, changing climate and ongoing drouths made it impossible for farmers to make a profit from cotton production. Thus, the textile heaven of the country started to import cotton farming in the region, Khamir founds traces of traditional cotton farming and attracts funds from a multinational development initiative. Moreover, the organization product marketable products to create awareness about the resource.

Similarly, Khamir trained 12 women in 2010 to process discarded plastics collected from residential and industrial areas. The project mainly focuses on the waste problem of the region by utilizing trashed plastics as raw material for weaving. This is both social and commercial innovation which both enables local women for generating income and contributes efforts of overcoming a serious environmental issue. Moreover, in order to scale up the project, the initiative extended the network with new actors and collaborated with another local NGO, Sahjeevan, focusing on environmental sustainability.

## 5.4. Transparency and conflict resolution agent role

Both organizations emphasize fair governance and shared decision-making processes. For instance, Kala Raksha introduces a multidisciplinary committee composed of artisans, designers, and managers responsible for the decision-making process to design new products targeting both national and international customers. Moreover, concerning fair wages, the organization distributes the power to artisan trustees and all decisions are given in consensus.

Khamir offers a social security program for linking artisans with government schemes related to health and social security services. Similarly, Kala Raksha employs preventive health care programs and basic education for artisans and their families. Both organizations offer micro-loans and shortterm financial solutions for artisans. Kala Raksha also supports artisans to form Self Help Groups in their villages. Additionally, Khamir offers raw materials depot providing small and medium-sized artisan initiatives with materials at competitive and fair prices.

## 5.5. Shared Vision champion

Kala Raksha's artisan designer mark is the crystallization of a shared vision drawn by Judy Frater and accepted by local artisans. This vision also forms the backbone of the organization and is shared by not only artisans but also their surroundings. During interviews all the artisans reflected the genuine pride of their work, crafting with design knowledge. Moreover, they proudly mentioned that their children are also willing to take a similar path. Such examples reflect how crafting as an economically viable and emotionally valuable activity could be revived and passed from generation to generation.

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Similarly, Khamir builds a brand of Kutchiness to widespread traditional but also innovative encounters of numerous craft practices. Not only good artisans but also enthusiastic and talented designers are attracted to the innovation collective of Khamir. Experimentation with materials and craft techniques are the shared vision provided by Khamir. Consequently, sustainable material experiments are conducted such as the use of natural dye, using the natural color of camel wool as a design element, hand-looming recycled plastic material, mixing leather metal and textile.

Identified social innovations aim to enhance rural capitals through playing bridging roles (Figure1). In this relationship, rural business practices are expected to foster social innovations in addition to their commercial goals. Since the success of examined craft initiatives depends on the effective utilization of local assets, facilitating social innovations to foster the development of the region also contributes to the economic success of the organizations.

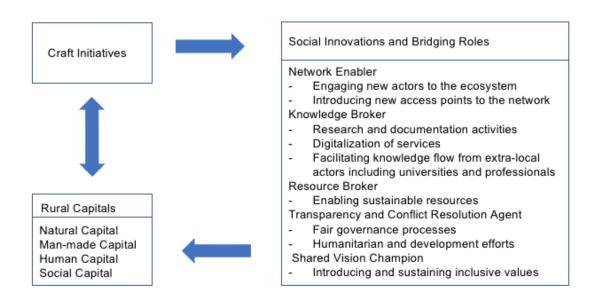


Figure 1 Identified social innovations and their bridging roles

Thus, it is possible to claim that the more a rural business model is embedded in rural capitals the more it could benefit from social innovations. In such a setting, social innovations have the potentials to enable locals to overcome their problems and to enhance the sustainability of business initiatives. For instance, the introduction of Kala Cotton or recycled plastic as raw material for weaving has both social and economic benefits. Similarly, preservation of craft heritage or training local artisans are introduced as pure social innovations initially but as the study points out eventually those social impacts influence the reinforcement of rural capitals which are exploited by the organizations for the development of the region and sustainability of the business. In this perspective, the local business models act as the initiator and also the beneficiary of the innovations.

## 6. Conclusion

Facilitating a vivid local economy is a vital element of the development efforts targeting a resilient rural. Such approaches optimally create livelihood opportunities providing mechanisms utilizing rural capital through creative destruction. However, the research stresses that the positive relationship between rural initiatives and resilient local communities is related to the specifications of a business model. Employing participative governance instruments, building an ecosystem containing diverse actors, and having a mutually beneficial relationship with rural capitals are prominent aspects of business models promoting sustainable development. Throughout history, rural development strategies evolved from top-down to bottom-up approaches utilizing local values and assets. In this perspective, the embeddedness of business and innovation would increase the locality and sustainability of development efforts. Rural businesses by nature focus on exploiting local and extra-local resources to develop marketable value. The more a business utilizes and enriches rural capitals the more its processes become embedded and sustainable in the context of rural development.

Triggered by local interests and needs, social innovations transmute and alter social relations in sustainable development processes. Rural social innovations emerge in various forms and mechanisms targeting the unmet needs of locals. Business initiatives embodying social purposes in their logic would be catalyzers of development where public interventions are not available. In this context, bridging institutions provide an organizing framework to further analyze social innovations and roles of rural business. Bridging roles connect innovation efforts of business practices with developmental needs. The research shows that the influence of social innovations will increase incrementally if the organization exploits assets of innovation ecosystems consist of diverse actors having vertical and horizontal relationships. Thus, development policies considering not only economic performance but also embeddedness and social innovation capacity of business models would be more successful in promoting sustainability, networking ability and resilience of rural communities.

The qualitative case study method was effective to understand the business models and interconnectedness of actors of the innovation ecosystem. However, this approach did not allow the study for a more precise assessment of the social impact of identified innovations. Moreover, the language barrier and time limitation were the main obstacles to develop a better understanding of the cases. Another limitation of the research stemmed from building the study upon existent data collected years ago. Extending the analysis with a new set of data would beneficial for the discussion of bridging roles.

Focusing only on craft initiatives to understand the bridging roles limits the outcomes of the study. Thus, the findings of the research cannot be generalized to all rural initiatives. Although discussed roles are not context-specific it is recommended to conduct further researches to elaborate the issue with different types of rural initiatives. Further researches should also employ social impact analysis to gain a deeper understanding of the relationship between innovations and social change. Such research could also increase the efficiency of policy recommendations for supporting rural initiatives.

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#### References

- Atterton, J., Newbery, R., Bosworth, G., & Affleck, A. (2011). Rural Enterprise and Neo-endogenous Development. In G. A. Alsos, S. Carter, E. Ljunggren, & F. Welter (Eds.), *The Handbook of Research on Entrepreneurship in Agriculture and Rural Development* (pp. 256–280). Edward Elgar.
- Basu, R. R., Banerjee, P. M., & Sweeny, E. G. (2013). Frugal innovation core competencies to address global sustainability. *Journal of Management for Global Sustainability*, *2*, 63–82.
- Bayraktaroğlu, S. (2014). Investigating Design for Social Innovation through Business Models in Rural India: A Model Proposal for Developing Countries. Istanbul Technical University.
- Bayraktaroğlu, S. (2020). Actors of Rural Innovation: Bamboo Craft Initiatives from Northeast India. In L. S. Andersen (Ed.), *Rural Areas: An Overview* (pp. 145–190). Hauppauge, NY, Nova Science Publishers
- Berdegu, J. A. (2005). Pro poor innovation systems (Issue December). http://www.share4dev.info/kb/docu ments/3544.pdf
- Borzaga, C., & Bodini, R. (2014). What to make of social innovation? Towards a framework for policy development. *Social Policy & Society*, *13*(3), 411–421. https://doi.org/10.1017/S1474746414000116
- Borzaga, C., Galera, G., & Nogales, R. (2008). Social enterprise: A new model for poverty reduction and employment generation: An examination of the concept and practice in Europe and the Commonwealth of Independent States.
- Bosworth, G., & Turner, R. (2018). Interrogating the meaning of a rural business through a rural capitals framework. *Journal of Rural Studies, 60* (February), 1 10. https://doi.org/10.1016/j.jrurstud.2018.02.0 02
- Brown, L. D. (1991). Bridging Organizations and Sustainable Development. *Human Relations*, 44(8), 807–831. https://doi.org/10.1177/001872679104400804
- Butkevičienė, E. (2009). Social Innovations in Rural Communities: Methodological Framework and Empirical Evidence. Socialinės Inovacijos Kaimo Bendruomenėse: Metodologinė Prieiga Ir Empirinės Iliustracijos., 63(1), 80 88. http://esc.web.lib.cbs.dk/login?url=http://search.ebscohost.com/login.aspx?direct=true &db=sih&AN=37276220&site=ehost-live
- Cajaiba-Santana, G. (2014). Social innovation: Moving the field forward. A conceptual framework. *Technological Forecasting and Social Change*, 82, 42 51. https://doi.org/10.1016/j.techfore.2013.05.0 08
- Castle, E. N. (1998). A conceptual framework for the study of rural places. *American Journal of Agricultural Economics*, 80(3), 621–631.
- Castro-Arce, K., & Vanclay, F. (2020). Transformative social innovation for sustainable rural development: An analytical framework to assist community-based initiatives. *Journal of Rural Studies*, 74(January 2019), 45–54. https://doi.org/10.1016/j.jrurstud.2019.11.010
- Chevalier, P., & Vollet, D. (2019). LEADER 2007–2013: An innovation dependent on local and national institutional arrangements? Some European illustrations. *Regional Science Policy and Practice*, *11*(2), 219–234. https://doi.org/10.1111/rsp3.12156
- Cromartie, J., & Bucholtz, S. (2008). Defining the "rural" in rural America. Amber Waves, 6(3), 28-35.
- de Fátima Ferreiro, M., & Sousa, C. (2019). Governance, institutions and innovation in rural territories: The case of Coruche innovation network. *Regional Science Policy and Practice*, 11(2), 235–250. https://doi.org/10.1111/rsp3.12147
- Ellis, F., & Biggs, S. (2001). Evolving themes in rural development 1950s-2000s. *Development Policy Review*, 19(4), 437–448. https://doi.org/10.1111/1467-7679.00143
- Gamito, T. M., & Madureira, L. (2019). Shedding light on rural innovation: Introducing and applying a comprehensive indicator system. *Regional Science Policy and Practice*, 11(2), 251–277. https://doi.org/10.1111/rsp3.12167
- Garcia, R., & Calantone, R. (2002). A critical look at technological innovation typology and innovativeness terminology: A literature review. *Journal of Product Innovation Management*, *19*(2), 110–132.
- Gkartzios, M., & Lowe, P. (2019). Revisiting neo-endogenous rural development. In M. Scott, N. Gallent, & M. Gkartzios (Eds.), *The Routledge Companion to Rural Planning* (pp. 159–169). Routledge. https://doi.org/10.4324/9781315102375-17
- Gkartzios, M., & Scott, M. (2014). Placing housing in rural development: Exogenous, endogenous and neoendogenous approaches. *Sociologia Ruralis*, 54(3), 241–265. https://doi.org/10.1111/soru.12030
- Greenberg, Z., Farja, Y., & Gimmon, E. (2018). Embeddedness and growth of small businesses in rural regions. *Journal of Rural Studies*, 62(January), 174–182. https://doi.org/10.1016/j.jrurstud.2018.07.016
- Gülümser, A. A. (2009). Rural Areas as Promising Hot Spots : Sustainable Rural Development Scenarios. Istanbul Technical University.

- Hahn, T., Olsson, P., Folke, C., & Johansson, K. (2006). Trust-building, knowledge generation and organizational innovations: The role of a bridging organization for adaptive comanagement of a wetland landscape around Kristianstad, Sweden. *Human Ecology*, 34(4), 573–592. https://doi.org/10.1007/s10745-006-9035-z
- Hart, L. G., Larson, E. H., & Lishner, D. M. (2005). Rural definitions for health policy and research. *American Journal of Public Health*, *95*(7), 1149–1155.
- Howaldt, J., & Schwarz, M. (2010). *Social innovation : Concepts, research fields and international trends*. http://www.internationalmonitoring.com/research/trend\_studies/social\_innovation.html
  - Hubert, A. (2010). Empowering people, driving change: Social innovation in the European Union (Issue May).
  - Jegou, F., & Manzini, E. (2008). Collaborative Services: Social Innovation and Design for Sustainability. In Milano: Politecnico di Milano Edizioni POLI.design.http://www.experimenta.es/en/noticias/depth/coll aborative-services-social-innovation-and-design-sustainability-3715
  - King, C. A. (2008). Community resilience and contemporary agri-ecological systems : Reconnecting people and food , and people with People. *System Research and Behavioral Science*, 25, 111–124. https://doi.org/10.1002/sres
  - Krantz, L. (2001). The sustainable livelihood approach to poverty reduction: An introduction. In SIDA. Division for Policy and Socio Economic Analysis.http://www.forestry.umn.edu/prod/groups/cfans/@pub/@cfa ns/@forestry/documents/asset/cfans\_asset\_202603.pdf
  - Losada, R., Gómez-Ramos, A., & Rico, M. (2019). Rural areas receptivity to innovative and sustainable agrifood processes. A case study in a viticultural territory of Central Spain. *Regional Science Policy and Practice*, 11(2), 307–327. https://doi.org/10.1111/rsp3.12187
  - Lowe, P., Phillipson, J., Proctor, A., & Gkartzios, M. (2019). Expertise in rural development: A conceptual and empirical analysis. *World Development*, *116*, 28–37. https://doi.org/10.1016/j.worlddev.2018.12.005
  - Murray, R., Caulier-grice, J., & Mulgan, G. (2010). The Open Book of Social Innovation. In *Young*. The Young Foundation. https://doi.org/10.1371/journal.pcbi.0030166
  - Nelson, J., & Prescott, D. (2003). Business and the millennium development goals: A framework for action.
  - Ness, B., Urbel-Piirsalu, E., Anderberg, S., & Olsson, L. (2007). Categorising tools for sustainability assessment. In *Ecological Economics* (Vol. 60, Issue 3, pp. 498–508).
  - OECD. (1999). National innovation systems. In *Regional innovation, knowledge and global change* (Vol. 26, Issue 3). https://doi.org/10.1787/9789264189416-en
  - Osterwalder, A., & Pigneur, Y. (2011). Aligning Profit and Purpose through Business Model Innovation. In G. Palazzo & M. Wentland (Eds.), *Responsible Management Practices for the 21st Century* (pp. 61–75). Pearson International.
  - Paterson, C., Mara, D., & Curtis, T. (2007). Pro-poor sanitation technologies. Geoforum, 38(5), 901–907.
  - Pender, J., Marre, A., Reeder, R., & Alexander, M. (2012). Rural wealth creation: Concepts, strategies and measures. American Journal of Agricultural Economics, 94(131), 535 541..https://doi.org/10.1093/aja e/aar076
  - Phills, J. A., Deiglmeier, K., & Miller, D. T. (2008). Rediscovering social innovation. *Stanford Social Innovation Review*, *Fall*(Fall 2008), 34–43. https://doi.org/10.1111/j.1369-7625.2010.00656.x
  - Pisano, U., Lange, L., & Berger, G. (2015). Social Innovation in Europe. ESDN Quarterly Report, 36(April), 25.
  - Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term? *Journal of Socio-Economics*, 38(6), 878–885.
  - Porter, M. E. (1996). What is strategy? Harvard Business Review, 74(6), 61-78.
  - Rantamäki, N., & Kattilakoski, M. (2019). On the trail of local welfare innovations in rural Finland. *Regional Science Policy and Practice*, *11*(2), 329–343. https://doi.org/10.1111/rsp3.12213
  - Reardon, T., Stamoulis, K., & Pingali, P. (2007). Rural nonfarm employment in developing countries in an era of globalization. *Agricultural Economics*, *37*(S1), 173–184.
  - Reinert, H., & Reinert, E. (2006). Creative Destruction in Economics : Nietzsche, Sombart, Schumpeter. In J. G. Backhaus & W. Drechsler (Eds.), *Friedrich Nietzsche (1844–1900) Economy and Society* (pp. 55–85). Springer. https://doi.org/10.1007/978-0-387-32980-2\_4
  - Schumpeter, J. A. (1934). The Theory of Economic Development. In Harvard University Press.
  - Scoones, I. (2009). Livelihoods perspectives and rural development. *Journal of Peasant Studies*, 36(1), 171– 196. https://doi.org/10.1080/03066150902820503
  - Shucksmith, M. (2010). Disintegrated rural development? Neo-endogenous rural development, planning and place-shaping in diffused power contexts. *Sociologia Ruralis*, *50*(1), 1–14.
  - Sonne, L. (2010). Financing pro-poor entrepreneur-based innovation: A review of existing literature. In *United Nations University Working Paper Series* (#2010-038; Vols. 2010–038).

Stake, R. E. (1995). The Art of Case Study Research. Sage Publications, Inc.

- Steiner, A., & Atterton, J. (2015). Exploring the contribution of rural enterprises to local resilience. Journal of Rural Studies, 40, 30–45. https://doi.org/10.1016/j.jrurstud.2015.05.004
- TEPSIE. (2014). Building the social innovation ecosystem. A deliverable of the TEPSIE project. In *TEPSIE* (Issue April).
- UNDP. (2014). Human development report 2014 sustaining human progress: Reducing vulnerabilities and building resilience. http://hdr.undp.org/en

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WBCSD. (2005). Business for development: Business solutions in support of the millennium development soals.

- White, S. C. (2008). But what is wellbeing ? A framework for analysis in social and development policy and practice. Regeneration and Wellbeing: Research into Practice, April, 1–18. http://people.bath.ac.uk/ecsscw/But\_what\_is\_Wellbeing.pdf
- Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27(2), 151–208. https://doi.org/10.1023/A:1006884930135
- Yılmaz, H., & Tolunay, A. (2007). Avrupa birliği kırsal kalkınma politikalarında yeni yönelimler ve Türkiye. Süleyman Demirel Üniversitesi Orman Fakültesi Dergisi, A(1), 107–122.
- Zeschky, M. B., Winterhalter, S., & Gassmann, O. (2014). From Cost to Frugal and Reverse Innovation : Mapping the Field and Implications for Global Competitiveness. *Research-Technology Management*, *August*, 20–27. https://doi.org/10.5437/08956308X5704235
- Zeschky, M., Widenmayer, B., & Gassmann, O. (2011). Frugal innovation in emerging markets. *Research-Technology Management*, 54(4), 38–45. https://doi.org/10.5437/08956308X5404007

#### Resume

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