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SOCIALLY INNOVATIVE REMODELLING OF PRESCHOOL FACILITIES

RECONSTRUCCIÓN SOCIALMENTE INNOVADORA DE INFRAESTRUCTURAS PREESCOLARES

Malin Lindberg[1*], Jennie Schaeffer[2], Mia Heikkilä[2]

Luleå University of Technology[1]
Mälardalen University[2]
*corresponding author: malin.lindberg@ltu.se

Abstract: Despite the prominent role of norms and values in public education policy and practice social innovation studies have rarely investigated how these are converted into practical transformations in the educational sector. The study therefore aims to provide further insight into the impact of contextualized and materialized norms and values in educational social innovation, using a remodeling process of preschool facilities in a Swedish municipality as an illustrating case study. Seeking to ensure equal and inclusive play, learning and development, the studied process exposes the impact of materialized norms and values on enabling and disabling rooms, furniture and materials in the preschool facilities. As such norms and values impact social transformation process regardless of the contextual specificities, the results may be useful also in other preschools in Sweden and internationally.

Keywords: gender, norms, preschools, social innovation, values

Introduction

The rapidly expanding field of social innovation studies has analyzed the aspirations, challenges and mechanisms of tackling societal challenges of inequality, poverty, unemployment, migration, etc. through innovative solutions and processes in varying contexts (Brandsen et al., 2016; Brundenius et al., 2016; Moulaert et al., 2013; Nicholls et al., 2015). These studies have acknowledged the social embeddedness of innovation processes in specific contexts, where ideological, cultural and organizational factors affect their initiation, implementation and success (Brandsen et al., 2016; Jessop et al., 2013; Styhre, 2013). Social innovation is consequently perceived as a contested issue among stakeholders with varying perspectives and interests (Segnestam Larsson and Brandsen, 2016). It remains to be more fully investigated, however, how contextualized norms and values are converted into practical transformations of organizations and societies (cf. Haxeltine et al., 2017; Westley et al., 2017).

Despite the prominent role of norms and values in public education policy and practice, not the least regarding democracy and gender equality in the Nordic countries (Heikkilä, 2016), social innovation studies have rarely investigated how these are converted into practical transformations in the educational sector (cf. Alden-Rivers et al., 2015; Brundenius et al., 2016; Martinelli, 2013; Ümarik et al., 2014). This study therefore aims to provide further insight into the impact of contextualized and materialized norms and values in educational social innovation, using a remodeling process of preschool facilities in a Swedish municipality as an illustrating case study. Despite the specific geographical, ideological and organizational context of Swedish preschools, the study provides potentially universal insights regarding how localized and materialized norms/values may impact social transformation processes, regardless of their specific character. The results may thus be useful also in other educational contexts, both in Sweden and internationally. The guiding questions for the study are "How are norms and values contextualized and materialized in the studied case of social innovation?" and "How does this contextualization and materialization impact prospects of practical transformations of organizations and societies?".

The article starts with an outline of the theoretical framework, focusing studies of social innovation, as well as of norms and values in Western public education. This is followed by an account of the single case study design, carried out as part of a participatory research methodology. The studied remodeling process are thereafter described and discussed, focusing how norms and values are contextualized and materialized. It is subsequently discussed how the results can be interpreted in light of previous studies, presented in the theoretical framework. The article ends with conclusions on how these insights serve to advance the knowledge of the impact of contextualized and materialized norms and values in educational social innovation.

1. Theoretical framework

Social innovation studies

As a rapidly growing field of study, social innovation studies engage scholars from numerous disciplines, in different parts of the world (Howaldt et al., 2018; Moulaert et al., 2013; Nicholls et al., 2015; van der Have and Rubalcaba, 2016). These studies generally conclude that social innovation implies development and implementation of new ways to address societal challenges and meet social needs, especially among disadvantaged and marginalized groups. The process may engender both tangible and intangible solutions, including new services, methods, products, principles, regulations, systems, etc., that deliver social benefits on individual, organizational and societal levels – including individual and collective empowerment (Brundenius et al., 2016; Moulaert et al., 2013). Social innovation is initiated and managed by various stakeholders from the public, private or nonprofit sectors – often in cross-organizational/sectoral constellations (Lindberg, 2014, 2017, 2018). Studies expose that unoccupied spaces – denominated as "clearings" – between existing organizations and services in a social landscape, allow social innovations to develop more freely from established structures (Segnestam Larsson et al., 2016).

Social innovation implies complex organizational and societal processes, that seek to reconfigure social relations (Brandsen et al., 2016; Moulaert et al., 2013). It has consequently been characterized as a dynamic, discontinuous and unpredictable process of structural transformation (Haxeltine et al., 2017; Westley et al., 2017). Recent studies have investigated this complexity further, in terms of how inclusive ambitions and ideas are transformed into organizational and societal change (Haxeltine et al., 2017; Westley et al., 2017). This has improved the understanding of how social innovations emerge, take shape and are integrated into the repertoire of established solutions in organizations and societies (Brandsen et al., 2016). Such processes are perceived to be socially embedded in their specific ideological, cultural and organizational contexts, that impact the initiation, implementation and success of social innovation (Brandsen et al., 2016; Jessop et al., 2013; Styhre, 2013). The outcome is dependent on "a decisive set of environmental factors" (Cattacin and Zimmer, 2016:21). The level of freedom and diversity, the nature of political cultures, traditions, and arrangements, as well as social relations and constellations of actors, are factors believed to restrain or reinforce social innovation (Brandsen et al., 2016; Cattacin and Zimmer, 2016; Jessop et al., 2013; Styhre, 2013).

Recent studies show that prevalent structures may be challenged and changed, if institutional reorientation is synchronized with empowering collective agency of concerned stakeholders (Haxeltine et al., 2017; Westley et al., 2017). The social and collective aspects of social innovation is thus underscored, in contrast to the economic and individualistic focus of traditional innovation studies (cf. Styhre, 2013). Synergies between collective agency and institutional reorientation seem to be hampered, however, by conflicting interests among various stakeholders, creating resistance and opposition to the initiated change (Segnestam Larsson and Brandsen, 2016). The values, actions, and outcomes of social innovation may thus be contested, due to their normative nature (Brundenius et al., 2016). Social innovation is consequently recognized as "a context-dependent process which is implicitly and fundamentally informed through the social agendas and consensus of those involved" (Daniel and Klein, 2014:23).

Some studies in the field of social innovation have focused on public education *about* social innovation (cf. Alden-Rivers et al., 2015) and social innovation *through* education (cf, Brandsen et al., 2016; Brundenius et al., 2016). Social innovation *within* public education are rarer, except from analyses of general school reforms (cf. Ümarik et al., 2014). Studies of social service innovation often mention education alongside health care, employment services and other welfare areas, but generally

lack empirical and analytical accounts from the educational area (cf. Copus et al., 2017; Martinelli, 2013; Sirovátka and Greve, 2014). Renewal of public education has nevertheless been studied in other academic fields than social innovation, in regard to space, pedagogics, professions, equality, digitalization, etc. (cf. Bushouse, 2009; Cherney and Dempsey, 2010; Clark, 2010; Lindahl and Folkesson, 2012; MacNaughton, 2000; Sheridan et al., 2011; Skelton et al., 2006; Yelland, 2005).

Some studies of social innovation have highlighted aspirations for gender equality in such processes, pinpointing the identification of unfulfilled needs for greater gender equality in various contexts (Cukier, 2018; Johnson Ross and Goddard, 2015; Lindberg et al., 2015; Lindberg and Berglund, 2016). They have also analyzed the development of new solutions that serve to diminish segregating, hierarchical, and stereotyped notions of gender in organizations and communities. We can also identify an intersectional dimension in the aspirations that drive social innovation, striving to improve the well-being, quality of life, relationships, and empowerment of groups disadvantaged by ethnicity, age, unemployment, disability, and other social factors (Brandsen et al., 2015; Nicholls et al., 2015).

Norms and values in Western public education

In Sweden, public preschools provide care for children from 1–5 years of age before entering elementary school (Andersson Tengnér and Heikkilä, 2017; Sheridan et al., 2011). They are managed by local municipalities and are complemented by privately managed preschools, run by nonprofit associations or commercial companies. Preschool facilities in Sweden are generally built in the 1960s and 1970s, when their primary task was to provide public childcare as a supplement to private homecare. This was later expanded to encompass additional missions to enhance children's play, learning and development, including active and systematic promotion of equal rights and opportunities, regardless of children's gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression. The regulations specify that no child should be constrained by stereotyped notions of gender in the school. They further underscore the obligation to respect human rights and basic democratic values, including freedom, equality, gender equality, integrity, and solidarity. As will be shown further on, the construction of the preschool facilities pose challenges to staff and children when implementing the new missions.

Preschools exist in numerous countries throughout the world, providing care for children before entering elementary school (cf. Bushouse, 2009; Yelland; 2005). Some countries provide publicly managed and funded preschools, others rely on private establishments. Varying denominations occur, e.g. kindergartens, nurseries, daycare facilities and playschools. Even if each country embeds its preschools in specific geographical, organizational and ideological contexts, all provide some sort of facilities designated to joint childcare. These are often obliged to fulfill some sort of public agenda with certain norms and values, established at either national, regional or local level. This makes the case study of Swedish preschool remodeling relevant for all contexts, regardless of their specific norms and values.

Previous studies have identified schools as key sites for the mutual construction and learning of stereotypical masculine and feminine identities and behaviors among children, at the same time as they strive to fulfill policies and regulations on equal rights and opportunities (cf. Cherney and Dempsey, 2010; Heikkilä, 2016; MacNaughton, 2000; Paechter, 2007; Skelton et al., 2006). Such guidelines include the UN Convention on the Rights of the Child, which states that all children should have the right to develop to their full potential, to play, to express their opinions, and to gender equality, among other things, regardless of their gender, ethnicity, religion, language, abilities, or any other status (United Nations, 1989). These clearly articulated values in preschool contexts challenge established notions of masculinity and femininity as fixed identities among children (cf. Paechter, 2007; Skelton et al., 2006). They particularly challenge the myth of a natural and innocent childhood where interventions to ensure gender equality are unnecessary (MacNaughton, 2000). This adds a 'heteroglossic' understanding of gender inequality to the dominating 'monoglossic' understanding (Francis, 2010). It does so by recognizing the occurrence of individual gender-transgressive performances beyond dualistic notions of femininity and masculinity that have served to maintain patterns of gender inequality.

This highlights the constant negotiation of norms in everyday life in public schools, with respect to what is possible, what is right or wrong, what is normal or deviant, etc. (Andersson Tengnér and Heikkilä, 2017). Previous studies distinguish

stereotypical norms in the everyday operation of preschools, including in their activities, interactions, and premises (Andersson Tengnér and Heikkilä, 2017; Paechter, 2007). Barriers and hierarchies regarding gender and other social factors have been distinguished in the construction, naming, positioning, and usage of both rooms and materials (such as toys or books) in preschool settings. Different rooms, materials, colors, and symbols are ascribed gendered attributes by both staff and children. The color pink is, for example, primarily linked to girls and femininity, and toy trucks to boys and masculinity. The size, furnishing, decoration, naming, visibility, flexibility and equipping of rooms in preschools have been proven to affect these notions and determine and limit children's play and learning. The central role of toys in children's play can have both amplifying and moderating effects on gendered toy preferences, which are adopted at an early age. Children also use toys to negotiate gender (Heikkilä, 2016; Serbin et al., 2001).

Play has been proven to be essential to children's learning and development (Davies, 1989/2003; Heikkilä, 2016). Play requires equity and equality, at the same time as it forces children to relate to the power relations that prevail in the surrounding context, organization, and society, which may result in segregated and hierarchical play. These power relations are manifested both in the interactions among the children and between children and preschool staff (MacNaughton, 2000; Paechter, 2007). Swedish studies have shown that staff use softer voices, more words, and more-intimate body language when interacting with girls (Andersson Tengnér and Heikkilä, 2017, Heikkilä, 2016). The demands that staff place on boys are correspondingly lower with respect to rules, behavior, social skills, maturity, and independency. Self-reflection among staff is needed in order in order to change such stereotypical interactions, driven by a common knowledge-base regarding norms and power (Andersson Tengnér and Heikkilä, 2017; MacNaughton, 2000).

2. Research Design

The study was designed as a single case study of the remodeling process of preschool facilities in a Swedish municipality. The single case study design has been proven to be fruitful when exploring new complex contemporary phenomena in real-life contexts (Yin 2009). In such contexts, researchers have limited control over events and whether research questions will begin with "how" or "why". The single case study approach was thus deemed to be the most promising method for developing new knowledge on the complex topic of social innovation values in preschool remodeling. The case was chosen due to its unique ambitions to remodel preschool facilities based on values of democracy and gender equality in relation to children's play and learning. The authors had access to this case thanks to existing contact between the municipality in charge of all public preschools and the lead researcher of the study (and co-author of this article), resulting from her extensive research on gendered relations and change in preschools.

Three preschools were singled out for remodeling in dialogue between the municipality and the lead researcher. The study was part of a research and development project funded by Sweden's national innovation agency, VINNOVA, during 2016–2019. This larger project aims to promote knowledge on norm-critical innovation processes through the remodeling of preschools. The study encompasses the first phase of the project, where prevalent barriers for children's equal play and learning in preschool facilities were identified as a basis for subsequent remodeling.

A participatory research approach was essential to enable scientific analysis of the remodeling process (cf. Aagaard Nielsen and Svensson, 2006; Gunnarsson et al., 2015; Reason and Bradbury, 2008). This approach included continuous dialogue and interaction between the municipality, architects, preschools, and university researchers throughout the process. The participatory research approach prescribes the joint development of knowledge by researchers and social stakeholders involved in the issue under analysis. This makes the resulting knowledge more socially robust and thereby increases the contextual validity of the study (cf. Gunnarsson et al., 2015). The municipal representatives, preschool staff, and architects were mainly involved via interactive dialogue sessions that were scheduled on an ongoing basis during the process. In these sessions planning and insights were discussed together, based on previous theoretical and practical knowledge regarding norm-creative processes in preschool settings.

The preschool children, who were 3–5 years old, were involved through photo elicitation, where they were given digital reader-pads they could use to freely take pictures of

their everyday preschool facilities. One of the researchers then conducted individual discussions with each child about their chosen motifs. Previous studies have identified photography as a beneficial method to allow such young children to articulate their perspective on which places were important to them, enabling a better understanding of the way children create meaning in their everyday preschool contexts (cf. Andersson Schaeffer, 2014; Clark, 2010). All parents were informed about this procedure and asked to provide their approval through consent forms. Participant observations were then carried out at the three preschools in order to identify how children and staff were using the facilities. The study further made use of document review of project documentation that formulated guiding values for the process and remodeling described the remodeling phases. Literature reviews on social innovation values and contextualization, as well as social norms in public school settings, also inform the study. This triangulation of data collection methods follows Yin's (2009) observation that the richness of studied phenomenon in single case studies requires multiple data sources in order to grasp the numerous relevant variables.

The data that was gathered was initially sorted into a comprehensive chart that mapped normative barriers and hierarchies in the three preschools. The results of the chart were then used as a springboard for designing a "provotype"[1], illustrating the most undesirable preschool construction imaginable. The provotype amplified the most excluding and constraining features, in order to evoke critical insights into normative play and learning. The prototype was used as an "anti-vision" when outlining the remodeling for the three preschools. This study focuses the identified barriers in the preschool facilities as outlined in the chart and as converted into the provotype. These barriers were analyzed in light of previous studies on social innovation and social norms in public schools. The goal of this analysis was to further expand existing theories on social innovation regarding the role of norms and values for practical transformation (that is, to achieve analytic generalization).

[1] A provotype is a provocative prototype, used in design processes to provoke and engage people to imagine possible futures (https://medium.com/@thestratosgroup/moving-from-prototyping-to-provotyping-cedf42a48e90 accessed 2018-03-16).

3. Results

The main aim of the studied process was to carry out remodeling of three public preschools in a municipality in the middle region of Sweden, that sought to enhance equal play and learning among children and move beyond limiting norms of gender and other social factors. The experiences and results of the process were intended to be used as inspiration in the design of new standards for preschool remodeling. The process was motivated by the need to remodel outdated Swedish preschool buildings, that had been designed for a narrower mission than today's schools. The municipality in charge of the preschools in the case study had a legal incentive to find new ways to make its facilities and operations more socially inclusive, as public law prescribes active and systematic promotion of equal rights and opportunities, regardless of children's gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression. Preschool staff also called for more knowledge and practical tools for fulfilling these missions. The process was hence guided by a vision to allow children to engage in creative play through equal, inclusive, and norm-challenging facilities and operations. The dual aspiration in the remodeling process was to increase the preschools' fulfillment of national obligations regarding equality and inclusiveness and to inspire playful learning and development among all children, regardless of social factors. The remodeled facilities were intended to provide new solutions, new configurations, and new patterns of play and learning. It was hoped that more norm-challenging preschool rooms would shape play in an equal and inclusive manner. In turn, more equal and inclusive play would shape the rooms in a norm-challenging manner. Children's voices were perceived as especially important to acknowledge in the process, since they are seldom consulted on matters that concern their everyday situation in preschools, despite regulations stating that they should be allowed to influence their environment.

The study combined data from the photo elicitation, dialogue sessions, and participant observation, to identify common obstacles to equal and inclusive play and learning in the preschools. These were formulated into a comprehensive chart, with three main identified barriers, described below.

Barrier 1: Disabling vs. Enabling Rooms

This barrier concerned the impact of preschools' interior layouts on inclusiveness and norm-challenging effects in children's play, learning, and development. One of the identified arrangements placed shelves with materials (toys, books, etc.) at a level that was either accessible or inaccessible. Formal and informal naming of rooms reflecting more or less stereotyped norms of gender other social factors – "the doll room," "the workshop," or "the girls' corner" – was also noted. Differences were thereto detected in the usage of various rooms. Some were dedicated to specific activities or interests, while others were not used at all. Some were assigned to a distinctly fixed use, with fixed walls, furniture, and specific instructional and play materials. There were several cases of separate rooms for different types of materials (including toys, books etc.), activities, and even children (e.g. daycare vs. overnight care).

Room size was noted to affect usage and play. Limited physical space often implied limited mental space. Some rooms were more messy and noisy than others. Fixed, separate, small, and noisy rooms seemed to result in homogenous groupings of children playing and occupying the space there, especially in regard to gender and age. However, in some cases a more varied usage of rooms was detected. Such rooms allowed children to creatively shape their own new spaces within the existing rooms by rearranging the interiors. This was especially true in rooms that enabled and inspired creative usage through features such as movable or temporary walls. A subcategory within this type of barrier was oversight vs. privacy. To maintain order, the staff needed to have oversight of children's play and behaviors, while to achieve free play, the children needed private spaces out of the view from others. The former need was addressed by numerous windows, not only on the exterior of buildings but also between interior spaces. The staff would sometimes impose restrictions on the maximum number of children playing in the same room, which constrained children's opportunities to hide among – and from – each other. In spaces where children themselves were able to rearrange furniture and materials they enjoyed increased opportunities to create hiding places for free play. Safe spaces, such as cozy sofas, were also used as a kind of hiding space.

Barrier 2: Fixed vs. Flexible Furniture and Materials

This barrier concerned the intended or interpreted usage of, and identification with, varying objects in the preschool facilities. Some furniture and materials were identified as linked to fixed gender stereotypes. Examples include identifying objects such as "girls' dolls," "boys' traffic carpet," and "girly costumes," or objects designed in colors and shapes that were primarily associated with one gender or the other. Fixed rules about how to use furniture and materials, and by whom, were also noted. Examples include reserving use of a reading corner for primarily calm children.

There were several instances of furniture and materials present, without reflection on the part of staff. Instances of broken furniture and materials that could not be used in the intended manner were also detected. Commonly present furniture and materials were sometimes used in ways that were more creative and flexible than intended. Some children would play under furniture, or move furniture and materials from their original positions. Such usage was encouraged by furniture and material arrangements that were less fixed. In some instances, this was further enforced through materials that inspired and enabled creative usage.

Barrier 3: Staff vs. Children and Children vs. Children

This barrier concerned the hierarchy that the researchers identified between staff and children. Staff possess the ability to determine children's play by deciding on norms, rules, and limits for play and usage of rooms, furniture, and materials (including toys, books etc.). Expectations among staff regarding how the children ought to behave in each room were noted. Their expectations also concerned how interior spaces ought to be used. For example, certain activities were to be performed in certain places. A belief among staff was noted that each child ought to like everything – or at least something – in each room. Staff generally needed to keep noise levels in play at tolerable volumes. These expectations relate to staff's goal of ensuring a safe and healthy environment for themselves and for the children. Staff also imposed such restrictions in order to uphold the formal rules and regulations of the preschool. Staff reported feeling torn between the ambitious regulations, their concern

for the children, and the practical limitations of the everyday operations at the preschool.

In some regards, staff expectations served to reinforce or challenge limiting norms regarding gender and other social factors. The most commonly reinforced norms regarded gender stereotypes. This resulted in gender segregated and hierarchical play and usage of rooms. Boys were generally allowed to take up more space, physically and audibly. These norms were also reflected among the children, who often described girls and boys as separate categories in their daily routine at preschool. However, we also discovered that children took pleasure in unwarranted behaviors that broke prevalent norms. Children imposed expectations on each other and on themselves regarding both gender and age when playing in using the preschool facilities in other ways. Boys generally were more messy and noisy, while girls behaved in a calmer and more mannerly way. Girls were held responsible and assumed responsibility and concern for the consequences and perception of play activities. These patterns of interactions seemed to be influenced by the level of normative predetermination in the preschool facilities. Low levels of flexibility in materials (e.g. toys and books), furniture, and rooms seemed to result in more stereotypical interactions and attitudes.

The Provotype

The barriers described above guided the design of a provotype in the project, materializing the most undesirable preschool construction imaginable. The *most excluding and limiting features* were amplified in this provotype. The goal was to prompt critical insight into normative play and learning among staff, municipality representatives, and us researchers. This would serve as inspiration to then move on to outlining the *most inclusive and equal preschool imaginable*. The provotype took the form of a digital sketch of a preschool with different rooms that included a hallway, a cafeteria, playrooms, and a monitoring room for staff. The hallway was designed as a small room with poor lighting, broken windows, shabby wallpaper, and cluttered with shoes, coats and so on. The cafeteria was designed as a huge room with one big table where the children had to remain seated during meals, with one corner containing a fixed set of toys where only a few children were seated. The playrooms were designed as small rooms with distinctly fixed activities and toys. One room was specifically designed for girls in a stereotypically "feminine" manner, using pink colors, frilly curtains, and dolls. In another room all the toys and books were placed on high shelves that children could not reach. The monitoring room was designed so that staff could supervise children's activities and behavior using joysticks and buttons for various commands. The personnel in the monitoring room were depicted as puppets on a string, supervised by cameras, illustrating their own powerlessness in the preschool system.

4. Discussion

In this case study, social innovation – a novel approach to meeting social needs, delivering social benefits, and address social problems (cf. Brundenius et al., 2016; Moulaert et al., 2013) – was motivated by the perceived need to ensure equal and inclusive play, learning, and development in public preschools. The remodeling of outdated preschool facilities can be regarded as a more effective, efficient, sustainable, and just way to fulfill the expanded requirements for Swedish preschools (cf. Andersson Tengnér and Heikkilä, 2017). This case study thus serves to scrutinize the moral virtues and ethical norms of social innovation (cf. Jessop et al., 2013), as the studied process was based on clear moral and ethical incentives that aligned with the preschools' prescribed mission to enforce values of equality, inclusion, and democracy in their operations (cf. Andersson Tengnér and Heikkilä, 2017). It thus agrees with the impact of normative systems on organizational and societal change, acknowledged in previous studies on social innovation (cf. Jessop et al., 2013). This is especially true with regards to the aspiration to counterbalance the social exclusion, created by unequal rights and opportunities regarding play, learning, and development linked to stereotypical notions of gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression (cf. Andersson Tengnér and Heikkilä, 2017; Brundenius et al., 2016).

The studied preschools' focus on gender and other stereotypical norms in their remodeling process shares similarities with previously identified aspirations of gender equality in social innovation processes (cf. Lindberg et al., 2015; Lindberg and Berglund, 2016). This concerns their identification of unfulfilled needs for improved gender equality in the preschool context, and their development of new solutions that serve to diminish segregation, hierarchies, and stereotyped notions of gender in the

preschool operations. In their ambition to enforce norm-challenging approaches in their operations, the preschools added an intersectional dimension to their innovation process. This included aspirations to improve disadvantaged children's well-being, quality of life, social relationships, and sense of empowerment (cf. Brandsen et al., 2015; Nicholls et al., 2015). The study thus serves to expand our knowledge of how innovation in social services can challenge and change limiting norms by identifying and addressing needs of users. The same is true for the empowerment of service users, the transformation of relations between service providers and users, and the safeguarding of universal access to social services on equal terms (cf. Martinelli, 2013). The normative focus of the studied case serves to highlight social innovation as an ideologically and locally contextualized process (cf. Cattacin and Zimmer, 2016). This reflects the cultural dynamics and political processes of the municipal preschool context (cf. Brandsen et al., 2016; Jessop et al., 2013).

The local contextualization in the studied case is further distinguished through the materialization of abstract norms and values in the physical form preschool facilities. Making preschool facilities more norm-challenging was intended to shape play in an equal and inclusive manner. In turn, more-equal and -inclusive play was intended to shape the facilities in a norm-challenging manner. This is in line with previous distinctions of stereotypical norms in several everyday routines at preschools, including their facilities (cf. Andersson Tengnér and Heikkilä, 2017; Paechter, 2007). The chart of existing barriers delineated factors that either inhibited or enabled equal play and learning at preschool facilities. It thus reflects and expands on previously identified barriers and hierarchies regarding gender and other social factors in preschool rooms, materials, and interactions (cf. ibid). In a conclusion similar to that emerging from previous studies, different rooms, materials, and colors were ascribed stereotyped functions both by staff in their interaction with children and by children themselves while playing and participating in activities (cf. ibid). The name, size, and intended use of rooms served to inhibit or enable equal and inclusive play and learning. The same is true of the placement, interpretation, and use of toys and books within these rooms. This finding aligns with previously identified distinctions of size, furnishing, decoration, naming, visibility, flexibility, and equipping of preschool rooms as determinative of such limitations (cf. ibid).

This case study is especially helpful in highlighting how fixed, separate, small, and noisy rooms tend to result in homogenous gender and age groupings and play. In contracts, flexible rooms that are large enough to allow creative use and rearrangement by the children seemed to facilitate more diverse groupings and activities. This reflects a duality noted in previous studies, where equity and equality in play is valued, at the same time that it is necessarily embedded in the power relations that shape the immediate and distant surroundings (cf. Davies, 1989/2003; Heikkilä, 2016; MacNaughton, 2000; Paechter, 2007). The resulting everyday negotiations of norms that previous studies of school settings have identified are thus perceivable in our data in children's attempts to achieve free – and sometimes hidden – play among the children. Such un-observed play seems to provide a space where prevailing norms regarding what is possible, right or wrong, normal or deviant can be challenged and perhaps changed (cf. Andersson Tengnér and Heikkilä, 2017; Paechter, 2007).

The free spaces created in such play share similarities with the "clearings" identified in previous research on social innovation (cf. Segnestam Larsson et al., 2016). There, unoccupied gaps in social landscapes are used for developing new practices independent of established structures. The ability to exploit such clearings is, according to the data, dependent both on the disabling and enabling character of preschool rooms and materials. It is also dependent upon the power relation between staff and children, as well as among children. Our data helps highlight the power that staff hold to determine the norms, rules, and limits for children's play and usage of rooms, furniture and materials. At the same time, we acknowledge finding that staff were occasionally powerless against preschool regulations and also faced practical limitations. Power relations among children are also significant. Boys generally were allowed (and perhaps expected) to be messier and noisier, and while girls were expected to behave in ways that were more mannerly and calm.

Similar to the conclusions from earlier studies on social innovation, in the studied preschool setting the ability to exploit clearings for social change seems to be dependent on a combination of bottom-up initiatives by children as they seek to create spaces for free play, and top-down reorganization by staff and the municipality that seeks to ensure the prerequisite environment for equal and inclusive play and

learning (cf. Moulaert et al., 2013). We suggest that these multiple levels for entry into transformative clearings can be labeled "reactive clearings" and "proactive clearings", respectively. The former refers to children's spontaneous identification of free-play zones: behind a couch, for example. The latter refers instead to room design and usage that intentionally allows norm-challenging play rather than requiring that it take place only as a countering reaction to limiting spaces. Such multi-level transformation has previously been identified as crucial to social innovation (cf. Haxeltine et al., 2017; Lindberg, 2014, 2017, 2018; Westley et al., 2017).

We can identify the dual nature of social innovation as both process and result in the case study's combination of stakeholder involvement and their clear incentives and visions (cf. Moulaert et al., 2013). The incentives included the municipality's goal of finding new ways to create more socially inclusive facilities and operations, preschool staff's goals to gain more knowledge and practical tools to fulfill their pedagogical mission, and children's ambitions to achieve free, creative and norm-challenging play. The studied process thus serves to illustrate how viewing social innovation as both process and effect can motivate the involvement of involved stakeholders in identifying and addressing social needs. It may also motivate the construction of new forms of cooperation across organizational and sectorial barriers in order to achieve sufficiently encompassing solutions to complex societal and organizational challenges (cf. Haxeltine et al, 2017; Lindberg, 2014, 2017, 2018; Westley et al., 2017).

The various vantage points were reflected in the conversion of the identified barriers in the chart used as the provotype, which amplified the most excluding and limiting features of the preschool facilities and was used as a springboard to outline its opposite in the subsequent remodeling projects. The provotype reflects an understanding of inequality in school settings based on gender and other identities or categories, something that previous research has labeled monoglossic (cf. Francis, 2010). From this perspective, dualistic and stereotypical notions of femininity and masculinity or other social factors seem to maintain patterns of inequality and fixed identities among children. This is enforced through distinctly fixed rooms, activities, and toys (cf. Francis, 2010; Paechter, 2007). By amplifying preexisting elements of exclusion and inequality in preschool facilities, the provotype served to challenge the previously identified myth of a natural and innocent childhood phase where interventions aimed at gender equality and other forms of inclusiveness seem superfluous (cf. MacNaughton, 2000). This helps distinguish the role of guiding norms and values in materializing socially innovative change, transforming a monoglossic understanding of equality, into a heteroglossic one (cf. Francis, 2010). The latter not only acknowledges the occurrence of individual, gender-transgressive performances, but also enables these by norm-challenging premises (re)modelling.

This transformation reflects the established notion of social innovation as a transformation of institutions (cf. Moulaert et al., 2013), in this case public preschools. Oppressive power structures that enforce limiting norms regarding gender and other social factors are challenged and changed. This is achieved through the collective agency of the stakeholders involved, who initiate empowering social relations. In this case, this took place both among the children and between children, preschool staff, municipal representatives, and so on. The institutional transformation is, however, currently limited to the three preschools that participated in the case study. The actual effects of the future remodeling projects remain to be analyzed in both the short and long term. As noted in previous studies, however, the cumulative effects of small-scale solutions might be more important to organizations and society in the long run (cf. Brandsen et al., 2016). This is because it is difficult to directly take complex solutions to thorny problems in one context and apply them in another without considerable translation and modification (cf. Segnestam Larsson and Brandsen, 2016).

The need for theoretical engagement with complex dynamic processes, discontinuous and unpredictable systems – articulated in earlier research (cf. Moulaert et al., 2013) – is underlined in the chart of barriers that was created in this study. The chart highlighted the complex hierarchical and limiting relationships between the staff and the children, as well as between among. In the provotype, these limitations were amplified into a monitoring room that illustrated opposing concepts. It ensured staff supervision of children's activities and behavior while at the same time it exposed the staff's own helplessness as controlled puppets within in the preschool system. Flexible rooms, furniture, and materials are able to evoke equal and inclusive play and learning. The same is true of hiding places, delimiting the staff's oversight

of the children's play. Children's interactions in free play may continue to reflect hierarchical and normative limitations, however. This highlights the additional matter of diverging interests among the stakeholders involved. Children's desire for free, creative and norm-challenging play might clash with staff goals of play that serves a democratizing and developmental role. This agrees with conclusions from previous studies regarding the contested character of values, actions, and outcomes in processes of social innovation (cf. Segnestam Larsson and Brandsen, 2016).

Conclusions

This case study of a Swedish preschool remodeling process shows that the contextualized norms and values of equality and inclusiveness confront material and immaterial barriers of gender and other social factors in preschool facilities. The barrier of *disabling vs. enabling rooms* illustrates the impact of preschools' interior arrangements on inclusiveness and norm-challenging effects in children's play, learning, and development. The sub-category of barriers we have called *oversight vs. hiding places* illustrates the contrast between staff's need to maintain surveillance over children's play and behaviors and the need that children have to achieve free play that is not subject to such oversight. The barrier *fixed vs flexible furniture and materials* (including toys, books, clothing, etc.) concerned the intended or interpreted usage of, and identification with, varying objects in the preschool facilities. The barrier of *staff vs. children* concerned the hierarchy that was identified between staff and children, where the former possess the ability to determine the latter's play by deciding on the norms, rules, and limits for play and for usage of rooms, furniture, and materials. The related barrier of *children vs. children* concerned limitations related to various social factors that children imposed on each other and themselves when playing in and in other ways using the preschool facilities. These barriers were further materialized in the *provotype*, which manifested the most excluding and limiting preschool (re)model possible.

In this study, social innovation can be viewed through the lens of a value-based remodeling of public preschools, as a solution to a perceived need to ensure equal and inclusive play, learning, and development. The fact that innovation in this case focused on norms and values serves to highlight social innovation as an ideologically and locally contextualized process, reflecting the cultural dynamics and political processes of the municipal preschool context. It thereto serves to highlight the materialization of norms and values in relation to rooms, furniture, and materials in public preschools. These were ascribed stereotypical notions both by staff in their interaction with the children and by children themselves while playing and participating in other activities. The name, size, and intended usage of various rooms were identified as barriers to equal and inclusive play and learning, as were the placement, interpretation, and usage of toys and books in these rooms. Children's attempts to find free spaces for play, where they could challenge and perhaps change prevalent norms, were enabled by "clearings" – that is, unoccupied gaps in the social landscape of preschool that were exploited to develop new practices that were partly hidden from established structures. This was enhanced by rooms, furniture, and materials that enabled and inspired creative usage, such as movable or temporary walls and less fixed designs. In this, we identify both "reactive clearings" that allow children to spontaneously identify free-play zones and "proactive clearings" that result from intentionally enabling room design and usage.

The preschools' prescribed mission to enforce values of equality, inclusion and democracy reflects the tendency to underscore the moral virtues and ethical norms in social innovation. The findings help distinguish the role of guiding norms and values for materializing socially innovative change, especially regarding the transformation of a monoglossic understanding of equality into a heteroglossic one. The occurrence of individual, gender-transgressive performances is then not only acknowledged but also enabled by norm-challenging facility design and remodeling. The results thus indicate that normative systems impact organizational and societal change, something also highlighted in previous studies of social innovation, especially as regards the aspiration to counterbalance social exclusion caused by stereotyped notions of gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression. The study contributes to expanding the understanding of how social service innovation can challenge and change limiting norms as it identifies and addresses needs within social services. The same is true for norms with respect to the goal to empower service users, transform relations among service providers and users, and ensure universal access to social services on equal terms.

The study highlights the complex power relations between staff and children, distinguished in the staff's ability to determine the norms, rules and limits for children's play and usage of rooms, furniture, and materials. At the same time, at times staff are helpless in relation to preschool regulations and practical limitations. This case therefore serves to illustrate how social innovation, viewed as both a process and an effect, can motivate stakeholder involvement. This includes involvement in identifying and addressing social needs, as well as in the construction of new forms of cooperation across organizational and sectorial barriers. The main contribution of the study thus concerns how social innovation norms and values are contextualized and materialized, specifically with regard to how a norm-critical understanding of enabling and disabling rooms, furniture, and materials can be translated into norm-creative preschool facilities.

These insights have wider theoretical and practical implications than the specific geographical, organizational and ideological context studied here. As localized and materialized norms/values impact social transformation process regardless of the specificities of each context, the results are useful also in other preschools in Sweden and internationally. This means that the approach and ambitions of the studied case may be practically applied also in other preschools, within or without the Nordic welfare state context. Even if local and national policies may determine the material and social configurations of preschool facilities in context-specific ways, remodeling of these facilities nevertheless impact prospects of social transformation. Further studies could provide additional insights into potential variances in this impact in various geographical, organizational and ideological contexts, based on cases from other preschools and countries. The main policy implication for the educational area in Sweden and internationally, is improved insight into the importance of synchronized regulations and guidelines for preschool education and facility construction, due to the socio-material interplay delineated in the study. It remains to be seen, however, if individual remodeling projects are sufficient to spur upscaled, societal transformation in terms of public policies that deliberately and systematically enhances inclusive preschool facilities.

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SOCIAL INNOVATION IN RUSSIAN SCIENTIFIC DISCOURSE

INNOVACIÓN SOCIAL EN EL DISCURSO CIENTÍFICO RUSO

Andrei Vasilevich Popov & Tatiana Sergeevna Solov'eva*

Vologda Research Center of the Russian Academy of Sciences
*corresponding author: solo_86@list.ru

Abstract: The concept of social innovation is the subject of active discussion in almost any country of the world. This trend is typical of Russia too, and the introduction of social innovation in our country was discussed back in the Soviet period. Taking into account the fact that Russian research findings are not included in the international discourse on a wide scale, we consider it important to summarize the experience in the field of social innovation and highlight characteristic features of its development. The paper consistently analyzes the works of Russian scientists of different periods; this allows us to trace the transformation of views on the social innovation essence. Addressing practical aspects in the social innovation development, we find that the main features of their implementation in Russia are as follows: prevalence of top-down initiatives, development of social entrepreneurship and the non-profit sector of the economy, and creation of support infrastructure.

Key words: Social innovation, Russian context, civil society, social entrepreneurship, economic theory, social economy.

Introduction[1]

Currently, the concept of social innovation has been firmly anchored among the priorities of social economy development. The most telling example can be found in Western European countries where social innovation is the central element of Europe 2020 strategy that aims to ensure smart, sustainable and inclusive growth (Jenson & Harrisson, 2013). In particular, since the 2000s, many research projects on the theory and practice of social innovation (SINGOCOM, KATARSIS, TRANSIT, SI-DRIVE, TEPSIE etc.) have been implemented with the support of the European Union framework programs). As a result, scientific literature has described many approaches to understanding the essence of this phenomenon and methods for its studying, which were further developed in the global discourse. Today, we can say with confidence that the subject of social innovation is reflected in the activities of the academic community, business structures, non-profit organizations and authorities around the world.

Russia is no exception in this case; the country experienced a surge of interest in innovation in the social sphere after the period of the Great Recession. The popularity of social innovation in Russia is largely due to the low efficiency of traditional mechanisms of state and market regulation, which leads to the persistence of system-wide problems and growth of new challenges (Solov'eva et al., 2018: 53), that must be addressed (Soboleva & Chubarova, 2017: 8-27). In this regard, social innovation practices become a kind of response to market and state failures more and more often.

However, a favorable environment for social innovation development in the country has not been formed yet. According to the estimates of the Economist Intelligence Unit in 2016, the value of the Social Innovation Index in Russia was 41.1, which corresponds to the 30th position in the ranking of 45 countries participating in the study (ECONOMIST, 2018). In our opinion, the reasons for such a situation are to be found in the disunity of knowledge about the nature of social innovations and the possibilities of their use in the context of the Russian reality. The situation is aggravated by the insufficient inclusion of Russian research findings in the international discussion. This is due to the fact that the vast

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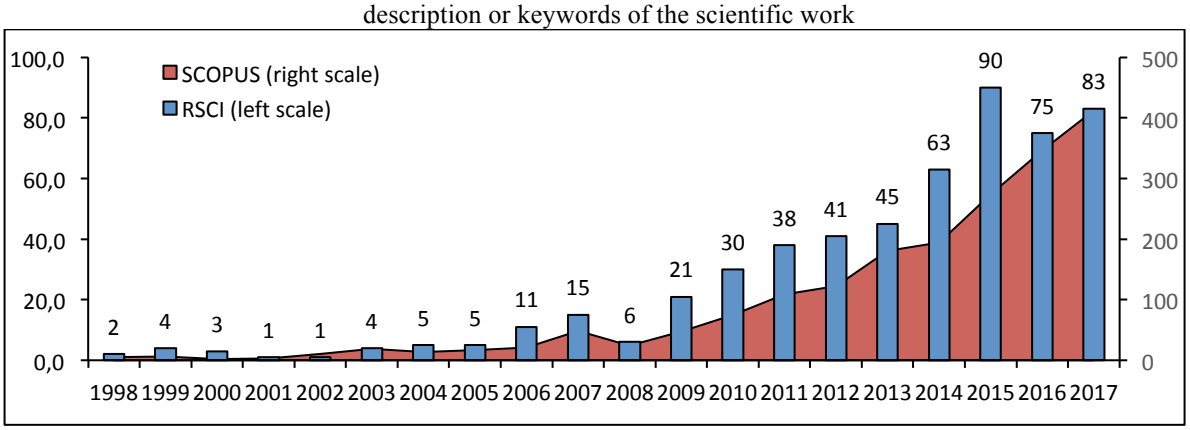
majority of works are published in Russian. Besides, the interaction with foreign colleagues is limited (the project of the Seventh EU Framework Program "Social Innovation – Driving Force of Social Change" is one of the few examples of such fruitful cooperation).

Thus, understanding the importance of the issues defined, we make an attempt to systematize and generalize Russian experience in the study of social innovation highlighting characteristic features of its development. The theory and practice issues of social innovation are examined separately for convenience of consideration.

1. Social innovation theory

According to the Russian Science Citation Index (national bibliographic database of scientific citation), there has been a continuing increase in the number of publications on the subject of social innovation since 2009 (Fig. 1). At the end of the 20th century and the beginning of the 21st century, there were very few such works; and at present, about 75–90 titles are published annually. A similar trend is typical of articles indexed in SCOPUS, although their number is much higher. However, it is noted (Westley et al., 2017: 2-4), that the term "social innovation" in the global perspective is used more often since the 1960.

Figure 1.The number of publications indexed in RSCI and SCOPUS, mentioning social innovation in the title, description or keywords of the scientific work



Note: the indicated time interval is due to the appearance of the first scientific work on the subject of social innovation in the RSCI.
Source: Own elaboration using Russian Science Citation Index and SCOPUS databases

Russian scientific literature contains the works of Soviet scientists (Lapin, 1982; Lapin & Prigozhin, 1982; Bestuzhev-Lada, 1990), that consider sotsial'nye novovvedeniya[2] (social novelties) in the socialist reality. In the most general terms, they were understood as qualitatively new formations, structures and mechanisms of social production, society as a whole, or their subsystems (Lapin et al., 1981: 9). Later Bestuzhev-Lada (1993: 19-20) substantiated a scientific approach to understanding the essence of social innovation, which helped separate them not only from technological innovations, but also from economic, medical, environmental ones, etc. This was achieved by highlighting the so-called sociological aspects (relationships between people as members of certain groups and institutions) and problems connected to them in each of the spheres of life. At the same time, special attention was paid to forecast-based substantiation of social and innovative projects due to the ambiguity and complexity of determining their effect on society. Typical examples of social innovations of that time were as follows: socialist competition, residence permit, voluntary people's guards, etc. At the same time, the problems concerning the introduction of innovative practices were actively considered at the micro level in the framework of planning social development of production teams (Lapin et al., 1975).

The period of social and economic shocks at the end of the 20th century is characterized by fading interest in the subject of social innovation

[2] We would like to emphasize the use of the Russian word *"novovvedeniye"*, because nowadays the term "innovation" is commonly used.

and the crisis of social sciences in the post-Soviet space in general. Since the early 2000s, the theory of social innovation in Russia has been developed in the context of a wide variety of scientific disciplines: from conflictology (Tsoi, 2001) and sociology of management (Sednev, 2005) to finance (Potapova, 2004) and management of innovation and innovation activity (Vlasenkova, 2006). This had an impact on the understanding of the essence of the phenomenon under consideration. In contrast to the definitions of social innovation being used in the Soviet era, the emphasis has shifted toward the individual and their needs in an emerging market-based environment in the country (Table 1). At the same time, social innovations were not in the focus of research, being used mostly as a universal tool to solve various problems from a practical point of view. Thus, no strong theoretical and methodological "foundation" was developed. And it is no coincidence it was then that there appeared some publications questioning the importance of social innovation in the socio-economic life of the country (Guseinov & Semenikhina, 2009).

Table 1. Some definitions of "social innovation" in the Russian scientific discourse

Author	Social innovation is understood as …
Lapin et al., 1981: 9	qualitatively new formations, structures, mechanisms of social production, society as a whole, or their subsystems
Tsoi, 2001: 147	processes that lead to significant and irreversible changes in the interaction between people and groups; which contributes to establishing new links and relationships between them, aimed to meet new spiritual and intellectual needs, new norms, and which also contribute to creating organizations and links of a higher level of development
Vlasenkova, 2006: 10	creation and implementation of various types of novelties generating significant changes in the social sphere, meeting the needs of the individual and society and promote economic development
Droganova, 2006: 9	changes in the social sphere that are based on practical fundamental scientific knowledge and are aimed at improving the quality of life; these changes are strongly dependent on the group and personal qualities of users and do not always require new technical equipment
Tsarev, 2011: 9-10	a complex social process of introduction, development and integration of new elements in various spheres of life, leading to significant and irreversible changes in the system of social relations and interactions
Akhmetzyanov, 2013: 8	the result of implementation of contractual relations that take the form of a product or process with qualitative advantages in the reproduction process, ensuring that the agents of transactions obtain additional social value in comparison with the previous product or process, as well as the formation of a positive external effect, determining, in contrast to economic innovations, their non-competitiveness, non-universality, non-commercializability, safety and adaptability
Veretennikova, Kats, 2015: 8	innovations in the social and cultural sphere of society, which are aimed at meeting the social needs of individuals bringing social benefits
Popov, Veretennikova, Omonov, 2017: 81	new combinations of resources in the social space, changing the institutional context and stimulating the search for effective solutions to social problems.

Source: Own elaboration

Rapid development of social innovation agenda in foreign countries at the beginning of the 21st century alongside with negative consequences of the global financial and economic crisis contributed to the active development of this sector in Russia. Since 2010s, there has been a noticeable "deepening" of research conducted in the direction of studying the social innovation concept (as well as social entrepreneurship and social economy as a whole). It is reflected most comprehensively in the framework of economic theory (Akhmetzyanov, 2013; Veretennikova & Panikarova, 2015; Kuznetsova, 2015; Popov et al., 2017).

Of great interest is Akhmetzyanov's dissertation (2013: 8-9), which proposes and substantiates a theoretical and methodological approach to the content of social innovation, emphasizing their non-competitiveness, non-universality, non-commercializability, safety and adaptability (table 1). The author focuses on the following functions of social innovation in the modern economy: pragmatic (meeting social needs, maintaining communicative integrity of the system, forming identity and reproducing values), stimulating (improving the standard of living and quality of life, promoting socially oriented economic growth, expanding the opportunities of choice), predictive (forming long-term goals of social development) and conservative (critical rethinking of the past experience, preserving traditions). With regard to the non-governmental sector, Veretennikova and Panikarova (2015: 119) link the purpose of social innovation with overcoming the failures of the state and its institutional environment, first of all, and with the reproduction of public goods and ensuring their proper quality. At the same time, the key role in these processes is assigned to state-owned enterprises, public-private partnerships and social entrepreneurs (Veretennikova & Kats, 2015: 13-15). In contrast, foreign approaches imply that the widest possible range of participants is involved in the implementation of social innovation management system functions (Kuznetsova, 2015: 83).

In this regard, the so-called "bottom-up" research of social innovation development is becoming increasingly popular. In particular, the work of Veretennikova and Omonov (2018: 92) considers the mechanism of social and innovative development in civil society, including the regulatory framework, innovation infrastructure, the role of economic agents, their social and commercial goals and stages of social innovation process. The main idea of the model developed by the authors, in our opinion, consists in the necessity to form an effective dialogue between government, business and society, which otherwise can result in negative effects from spreading social innovation practices. This thesis is actively studied at Vologda Research Center of the Russian Academy of Sciences within the ecosystem approach (Solov'eva, 2017; Solov'eva et al., 2018). Currently, the Russian model of social innovation implementation has been developed as one of the stages of social innovation ecosystem construction, which reflects the relationship between the actors at different stages of project activities (Il'in et al., 2018: 126-127). Special attention is also paid to the impact of social innovations on individual subsystems of the regional economy (Solov'eva, 2018: 87).

A slightly different approach to the study of social innovation is used in the research conducted at the Institute of Economics of the Ural Branch of the Russian Academy of Sciences and the Ural Federal University named after B.N. Yeltsin, the first President of Russia. Here the institutional conditions of social transformations come to the focus, and the institutions of social innovations development form a central link (Popov & Semyachkov, 2017). Subsequently, all of them were divided into six groups for our purpose: institutions of human capital development, institutions of public administration, institutions of innovative culture, institutions of civil society, institutions of financing, and institutions of business environment. The analysis of the state of each institution allows us to assess the quality of the institutional environment for the social innovation development; it was carried out on the example of the Sverdlovsk Oblast (Popov et al., 2017: 85-88). The theoretical results obtained have formed the basis of the econotronics concept, which is devoted to the dynamics of developing economic institutions for interaction between actors and society in modern digital economy (Popov, 2018: 24). Scientific principles and ideas of the concept help establish causal relationships between endogenous environmental factors and successful development of social projects.

A distinctive feature of the modern period of Russian science development is the dynamism of views on the essence of social innovation. This leads to a continuing updating of existing knowledge and emergence of new theories and concepts. As a result firm theoretical "structures" are not being formed. Such a situation can be determined not only by the influence of foreign studies, but also by the versatility of the phenomenon under consideration and the possibility of studying it from different perspectives. Further development of theoretical provisions in the field of social innovation depends largely on understanding the experience accumulated (including the experience obtained in the Soviet times).

2. Social innovation practice

Examples of social innovation projects in the Russian practice in the broadest sense of the term can be found in the days of tsarist Russia and the USSR, when various initiatives of social orientation were implemented. This was manifested in different forms: charity and philanthropy, social responsibility of entrepreneurs, social projects of the state, etc. For example, social projects aimed at working with difficult children and adolescents (Makarenko, 1950), programs to expand the provision of free services to the population at the expense of public consumption funds (Ivanova, 2014), the introduction of universal compulsory education (Shpakovskaya, 2009), etc. Social innovations in Russia started to develop more rapidly in the 21st century, when the state began to provide significant support to non-governmental organizations and small businesses, promoting public-private partnership and the growth of social investment. At the same time, private business has also become actively involved in supporting various social initiatives. In particular, LUKOIL president V. Alekperov was one of the first to provide assistance to social innovators and social entrepreneurs within the framework of the Fund for regional social programs Our Future that he established in 2007.

However, despite the development of ideas and practices of social innovation in Russia, their potential is currently underutilized. Summarizing the above, we can highlight the following main features in the development of social innovations in the Russian context:

1. Unlike European countries, social initiatives in Russia are mainly directed "top-down". The authorities understand their relevance and stimulate the processes of social activity in the areas they find important for the state. In particular, this is demonstrated in organizing and conducting various competitions of social projects. For example, the all-Russian competition of social innovations[3], the competition of innovative social projects of the Fund for support of children in difficult life situations[4], the all-Russian competition of youth projects[5] etc. In addition, state authorities themselves often initiate the implementation of social innovation projects. For example, in the city of Vologda, the whole system of urban social projects (more than 40) has been developed in order to improve the quality of life and urban environment[6]. At the same time, the development of social innovation projects takes place "bottom-up", to, although it is less active.
2. Social innovations in Russia are mainly associated with the concept of social entrepreneurship as one of the most effective tools for their implementation. Perhaps the reason is that social entrepreneurship, according to many researchers, has an in-built element of innovation (Neshchadin et al., 2014:145; (Boriskina et al., 2016: 22-30) and is a social innovation activity (Vasil'eva & Poltavskaya, 2017: 37). However, the Russian legislation still lacks both the concept of "social entrepreneurship" and clear criteria for its identification. Official legislation places more emphasis on technological innovations than on social ones. In 2016, the Russian Ministry of Economic Development prepared a draft law on social entrepreneurship, but it was never adopted by the Government. Support for social entrepreneurship is carried out mainly within the framework of developing small and medium-sized business, as well as expanding the access of non-governmental organizations to provide services in the social sphere. The sphere of social entrepreneurship is actively expanding, despite the fact that at present its volume is not more than 1% of the total volume of entrepreneurship[7].
3. Interest in social innovation is also growing in connection with the development of the non-profit sector, as non-profit organizations are close to the direct recipients of benefits. From 2012 to 2016,

[3] All-Russian competition of social innovations. http://pokoleniedobra.ru/

[4] Projects of the Fund for support of children in difficult life situations. http://fond-detyam.ru/granty-fonda/proekty/

[5] All-Russian competition of youth projects. Russia – the country of opportunities. http://rosmolgrant.ru/

[6] Social projects. Official website of Vologda City Administration. http://vologdaportal.ru/o_gorode/index.php?SECTION_ID=4477

[7] What is needed for the development of social entrepreneurship. *Vedomosti Newspaper*, 2018, no. 5, October https://www.vedomosti.ru/partner/articles/2018/10/05/782341-nuzhno-razvitiya

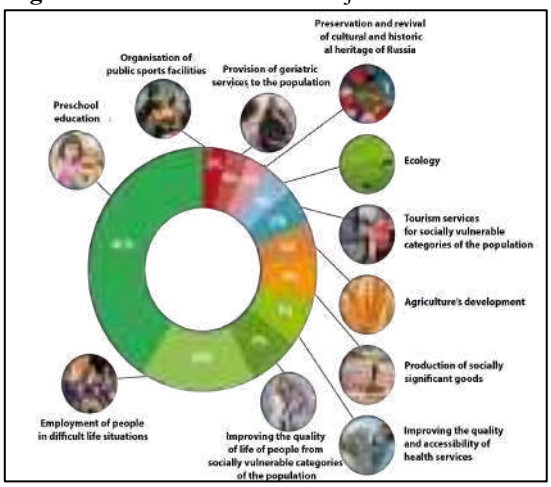
the number of socially-oriented NGOs in Russia increased more than three-fold[8]. This was facilitated by the improvement of legislation in the field of support of socially oriented NGOs and legislative consolidation of the NGOs status as providers of socially useful and social services. The development of the NGO sector in the sphere of providing social services is included in the main directions of the state policy for providing social support to the population in the framework of the Concept for long-term socio-economic development of the Russian Federation for the period up to 2020. At the same time, it is noted that in practice the potential of expansion of the non-governmental sector to provide social services is not high due to the low effective demand of the population and the state, which results in a low capacity of the social services market (Moskovskaya, 2018: 100).

4. Supporting infrastructure is being developed. Back in 1985, in the Soviet Union, the newspaper Komsomolskaya Pravda created a fund for social inventions, which contributed to the development of social innovation and provided organizational, financial and legal support (Bestuzhev-Lada, 1993). Modern Russia started to make more active efforts to build the supporting infrastructure in 2011 when the Agency for Strategic Initiatives was established with support from the Government of the Russian Federation. Further, the work was carried out to create such structures as the Centers of social sphere innovations in the regions of the Russian Federation, the Council for social innovation development of the RF subjects under the Federation Council. These efforts contribute to the identification and support of promising projects at the regional level. In addition, the state, foundations and private businesses hold competitions to promote projects of social entrepreneurs, create various platforms to raise funds and search for partners, organizations to provide consulting services and assistance in the development of franchises, training, etc. are being established.

[8] Main information on the work of SONPOs in the Russian Federation for 2012, 2013, 2014, 2015, 2016. http://www.gks.ru

As practice shows, at the moment there is some experience in the implementation of social innovations. Most of the initiatives are aimed at achieving equality of opportunities for different categories of population in access to quality education, health care, labor market, etc. (Fig.2).

Figure 2. Social innovation Projects in Russia



Source: According to the Fund of regional social programs Our Future

The presence of active demand can be named as a starting point in the development of social innovation in Russia. Most of the projects respond to social demands from certain groups of society, whereas not all the projects offer new innovative solutions, many of them simply adapt or modify existing practices. Support from the authorities is an important incentive; that is why many projects are related to certain political programs, because in this case it is much easier to get help from the state. However, sometimes such support is purely formal; and the real instruments, especially financial ones are used less frequently. The development of new technologies, including information and communication, also acts as an incentive for the development of social innovation and social entrepreneurship. The emergence of various platforms makes it possible to effectively search for the necessary resources, partners and share experiences (Solov'eva, 2017: 99).

The development of social innovations involves many actors such as the public and private sector, non-governmental organizations, the media, foundations, etc. But the limited interaction between them creates the so-called "barriers" in the form of additional transaction costs. It is no coincidence that one of the main factors contributing to the success of such projects is the cooperation and development of

partner networks (Solov'eva et al., 2018: 63-65). The main obstacle to the development of socially innovative projects and social enterprises in Russia is the absence of legislation on social entrepreneurship and social innovation, which would help establish clear criteria for identification and the framework of state support. The presence of a socially active layer of citizens who are able to take responsibility in addressing social problems is of great importance in the implementation of social entrepreneurship and social innovation ideas. Nevertheless, the majority of Russians are characterized by civic passivity. For example, according to the public opinion monitoring conducted by Vologda Research Center of the Russian Academy of Sciences, almost one third of the population of the Vologda Oblast (28%) would not show civic participation under any circumstances, and the same amount (32%) are not ready to do anything for the development of their locality (Table 2).

Table 2. How people assess the possibility of civic participation in addressing social problems

Answer	Proportion, %
"Could you become a "social activist"? If the answer is "Yes", in what situation?" (civic participation potential)	
I could not in any situation	**28.1**
I could in case of violation of my rights	15.5
I could in case of violation of the rights of others	7.1
I could, if it were necessary to find a solution to some social problem	8.7
It's difficult to answer	40.1
"What are you ready to do for the development of your hometown (village)?" (five most common answers)	
Nothing	**31.7**
Everything I can	31.7
Participate in the beautification	24.7
Take part in restoring order	22.3
Give advice, suggest something	17.7
…	
To be an organizer of projects	**4.9**

Source: the calculation by the authors is based on the data of the public opinion monitoring, VolRC RAS, 2018.

In addition to legislative and administrative barriers, serious barriers to the development of social innovation include lack of funding, lack of qualified personnel and staff competencies, lack of recognizable image among the general public, etc. Due to these barriers, many projects are presented only at the local level and find it difficult to expand their territorial coverage (Solov'eva, 2017: 100).

Thus, at present, the environment for the development of social innovations in Russia is in its infancy. Certain actions are being taken in this direction, but they are still insufficient. Further development of social innovations will require a clear definition of the legislative framework and the creation of a favorable environment for their development by eliminating or mitigating the barriers identified.

Conclusions

The development and implementation of social innovations is one of the promising areas for improving the quality of life, meeting various needs of citizens, reducing inequality, etc., that is, for the development of human potential as the basis of national security and global competitiveness of the country. In Russia, certain theoretical and methodological developments in this area emerged in the Soviet period, when social design, planning and forecasting were greatly developed in the conditions of the planned economy. In the 1990s under the general crisis of the social sciences, the research in the field of social innovations was scattered, and it was often carried out at the micro level. During the first decade of the 21st century, the subject under consideration was addressed in the

mainstream of various sciences: from psychology and conflictology to sociology, philosophy and economics. The crisis in the global and Russian economy gave an impetus to the extension of scientific research in this field and, as a result, since 2010, there have appeared a considerable number of publications devoted to the institutional aspects of implementing social innovation and mechanisms of socio-economic development, as well as the attempts to use the ecosystem approach in the development of social innovations. At the same time, there is no integral unified understanding of the nature and process of social innovations in modern Russian science, which is due not only to the influence of foreign studies, but also to the versatility of the phenomenon under consideration.

Nevertheless, in practice, social innovations in Russia have been implemented for a long time in one way or another. However, social innovations as well as their theory have been actively developed in the 21st century when the government started to provide support to the formation of civil society, and when attention to the non-profit sector and social entrepreneurship increased. Currently, various structures and organizations are being created to promote social innovation development, i.e. some elements of the social innovation ecosystem are being formed. However, this process is constrained by a number of barriers (legal, administrative, information, socio-cultural, etc.). In order to improve the areas of support for social innovation, it is necessary to develop theoretical concepts as a scientific basis for management decision-making, and to encourage various business entities to support and implement social innovation projects.

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HOW SOCIAL INNOVATION PROJECTS ARE MANAGED? ANSWERS FROM A LITERATURE REVIEW

¿CÓMO SE GESTIONAN LOS PROYECTOS DE INNOVACIÓN SOCIAL? RESPUESTAS DESDE UNA REVISIÓN DE LA LITERATURA

Luciana Chueri* & Renata Araujo

Universidade Federal do Estado do Rio de Janeiro
*corresponding author: luciana.chueri@uniriotec.br

Abstract: Social innovations (SI) are solutions that simultaneously meet a social need and lead to new or improved society capabilities. Although SI have been one alternative to modern societies challenges, little evidence is found on how this process occurs, including methods and tools. This research analyses the state of art in the academic research on the development of SI projects through a systematic literature mapping related to the development of SI projects. Main findings are that SI development processes - from ideation to implementation and scalability - are not completely described, little detailed information exists about the use of methods and tools, lack of implementation results, and very limited knowledge can be found on how organizations develop capabilities to manage SI projects. This paper brings to the SI research community a landscape of approaches already used in SI projects management, giving ground to a research agenda in the field.

Keywords: Social innovation, social innovation development, systematic literature mapping.

Resumen: Las innovaciones sociales (IS) son soluciones que satisfacen simultáneamente una necesidad social y generan capacidades sociales nuevas o mejoradas. Si bien las IS han sido una alternativa a los desafíos de las sociedades modernas, se encuentra poca evidencia sobre cómo ocurre este proceso, incluidos los métodos y las herramientas. Esta investigación analiza el estado del arte en la investigación académica sobre el desarrollo de proyectos de IS a través de un mapeo bibliográfico sistemático relacionado con el desarrollo de este tipo proyectos. Los principales hallazgos revelan que los procesos de desarrollo de la IS, desde la ideación hasta la implementación y escalabilidad, no se describen completamente, existe poca información detallada sobre el uso de métodos y herramientas, faltan resultados acerca de la implementación y se encuentra un conocimiento muy limitado sobre cómo las organizaciones desarrollan capacidades en la gestión de proyectos de IS. Este documento, brinda a la comunidad investigadora del campo de IS un panorama sobre los enfoques utilizados en la gestión de proyectos de IS, dando paso a una agenda de investigación.

Palabras clave: innovación social, desarrollo de la innovación social, mapeo sistemático de la literatura.

Introduction

Innovation has driven advances in productivity and economic growth. While it is true that the contributions from innovation have not only been economic it is also true that much of the thrust and focus of efforts to mobilize innovation have focused on economic objectives (OECD, 2011). But technological and other innovation outcomes appear to be ineffective as compared to social innovation in addressing complex social, economic, political and environmental challenges (Altuna et al., 2015) (Howaldt et al., 2016).

Policymakers, non-government organizations, charities and entrepreneurs across the world have shown increasing interest in "social innovation" as a means of addressing

various problems, from poverty and homelessness to environmental degradation (The Economist Intelligence Unit, 2016). The importance of Social Innovations (SI) is highlighted by OECD (2011, p. 20) as responses to unsolved or inadequately met social problems and needs which have been unsuccessfully addressed by government or commercial market. At its core, and a crucial distinction from business innovation driven by market forces, social innovation contains a socio-economic and cultural dimension focusing on social change to fill gaps in provision that neither the state nor the private sector has been able to identify or close (Mulgan, 2006; Altuna et al., 2015).

SI has a central role in the European Union (EU)'s Europe2020 strategy towards smart, sustainable and inclusive growth. This includes the flagship initiative 'Innovation Union', where innovation is regarded not as merely industrial, but rather as a means to update society's capacity to organize, act and respond on the persisting challenges of growth, and to capitalize on knowledge generation and transfer opportunities provided by new technology (European Commission, 2016).

In recent years, SI has emerged, both in its research and development dimensions: SIs appear in a variety of forms and influence our lives. They change the way people live together, travel, work or handle crises, and are driven by different societal sectors and cross-sectoral networks (Fuger et al., 2017), (European Commission, 2013) (OECD, 2011).

Although a lot of interest is placed on SI, there exists limited knowledge on how government, no-profit or for-profit organizations develop social innovation projects. This paper presents a systematic literature mapping that has sought to identify how SI projects are developed, from idea to escalation. Results of this literature review shows SI development processes are not completely described, giving ground to a research opportunity in the field.

The remainder of the paper is organized as follows. Section 2 provides a brief background on SI and its six-stage process. Section 3 details the search protocol and the research questions from this literature mapping study. Section 4 presents the synthesis results of the data extracted from the selected studies and answers the research questions. A discussion of the results of the systematic mapping is presented in Section 5. The article ends with a proposal for future work in SI and a summary of the conclusions.

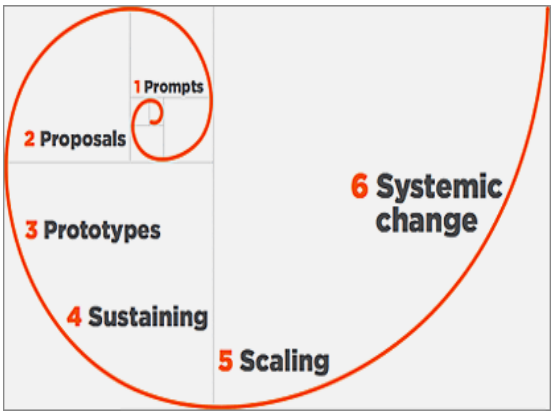
1. Social innovation

Currently, no definite consensus exists on the term 'social innovation'. A range of definitions and interpretations are available, in which linguistic nuances and different social, economic, cultural and administrative traditions play a role. For the purpose of this research, we used the definition provided by the research project TEPSIE (The Young Foundation, 2012), widely adopted by a large number of academic and policy documents: **'social innovations are new solutions (products, services, models, markets, processes etc.) that simultaneously meet a social need (more effectively than existing solutions) and lead to new or improved capabilities and relationships and better use of assets and resources. In other words, social innovations are both good for society and enhance society's capacity to act'.**

According to Araujo & Chueri (2017), a SI must match the following criteria: it must 1) be new with regard to the user, context or application, although not necessarily original; 2) generate an improvement which could be translated both into a satisfactory result that would demonstrate efficiency, as well as into an achievable alternative to the already existing solutions; 3) should be able to generate value to the community or to a specific group; 4) is a result of a process that is divided into multiple stages (beginning as an idea until implementation); 5) enhances society´s capacity to act.

SI typically is a result of a process with several stages (European Commission, 2013) (Figure 1). In order to study the application of tools and techniques in the development of SI projects, the six-staged model conceived by Mulgan (2006) and illustrated by Caulier-Grice et al (2012) was chosen, which is more detailed than the others found in the literature (Westley and Antadze, 2010) (European Commission, 2013), (Cunha and Benneworth, 2015), as well as the most cited (584 citations) according to Google Scholar:

Figure 1. The process of SI.



Source: (Caulier-Grice et al., 2012)

- **Prompts:** Prompts highlight the need for innovation. Sometimes, these come in the form of unexpected changes in the immediate external environment: a sudden environmental or political crisis (Hurricane Katrina led to the founding of several social initiatives such as the New Orleans Institute for Resilience and Innovation; violence following elections in Kenya in 2008 prompted software designers to establish Ushahidi, a platform for crowdsourcing information via text messages sent in by people on the ground, enabling organizations to plan crisis responses). Prompts may also come in the form of a longer-term crisis which becomes more acute and demands action. Emergence of new evidence, data or research can also provide a major prompt.
- **Proposal:** The second stage involves generating a new idea that provides a solution to the identified need. In some cases, this stage will follow on naturally from the identification of need (working with the same group and research techniques to identify potential solutions). At other times, it might involve a new practice or technique.
- **Prototyping - testing the idea in practice:** Ideas are introduced and then adjusted in light of experience. Experimentation, rapid learning, trial and error are all important elements of the innovation process. These mental frames have given us the 'supply push' and 'demand pull' theories of innovation, but innovation is rarely a straightforwardly linear process. Rather, it involves a constant interaction between demand and supply, potential users of the innovation and their suppliers.
- **Sustaining:** Taking an idea that has shown promise as a pilot or prototype and turn it into an established initiative which can be sustained over time. This means developing an economic model that will secure the venture's financial future.
- **Scaling and diffusion:** Routes to growth – from organizational growth to licensing and franchising to federations and looser diffusion. Some of these approaches involve organizational growth. Others involve much more organic processes of diffusion, with ideas spreading and adapting rather than growing through a single organization.
- **Systemic change:** SIs are inherently about changing the way things are done and the way social needs are conceptualized. Systemic change is the ultimate goal, even if very few SIs reach this stage, and even whether some SI are aimed to remain local or regional.

SIs do not necessarily go through all six stages. In some cases, SIs remain small in scale and are locally based, rather than attempting growth and scale, and very few SIs reach the stage of systemic change (Caulier-Grice et al., 2012). In other cases, especially online, SIs can skip out stages entirely, quickly going from prototyping to scaling and only then exploring business models and revenue streams. While this six-stage process does not capture the often messy nature of developing and growing SIs, it does provide a very useful analytical framework with which to think through the range of different activities that take place and the support and resources required at each stage.

2. Research Method

Systematic Mapping Studies are designed to provide a wide overview of a research area, to establish whether research evidence exists on a topic and provide an indication of the amount of evidence. (Kitchenham et al., 2007). The research method adopted in this study is based on the approach presented in Brereton et al (2007) and on the quasi-systematic review presented in Magdaleno *et al* (2012), considered as an exploratory study, designed to characterize a research area. The survey follows a well-defined sequence of steps (planning, execution and report), defined in a mapping protocol. The

mapping protocol used in this research is detailed in Annex I.

2.1. Scope

The objective of this study is to identify all supporting elements used during the development of a SI project aiming at answering the following main (MQ) and secondary questions (SQ):

MQ: How are SI projects developed?
SQ1: What are the challenges in SI projects?
SQ2: What methods and technological solutions have been applied for SI projects?
SQ3: What results have been achieved by communities and government when SI projects are developed?

3. Search Results

Table 1 shows the number of items returned from the digital libraries selected in the review during each step of the filtering process. The first search round in each of the selected digital libraries Scopus, IEEE, Compendex and Web of Science was performed in June 2017. The second search round, specific for Google Scholar, was performed in September 2017. The reading of the 28 papers remained after the filtering process helped us to answer each research question as follows.

Table 1. Filtering process

	Scopus	Compendex	IEEE Explore	Web of Science	Google Scholar	Total
Results of search engines	215	46	30	144	141	576
After duplicates excluded	213	1	9	49	69	341
After title and abstract filter	74	0	1	10	72	157
After text available filter	52	0	1	4	45	102
After content filter	14	0	1	1	12	28

Source: own elaboration

3.1 MQ: How are SI projects developed?

Although SI is studied based on distinct theoretical and methodological angles, the conditions under which SIs flourish are developed, and sustained, finally leading to societal change, are not yet fully understood both in political and academic circles (Howaldt et al., 2016). This statement was proven true during the deep analysis of the retrieved papers. From all the papers studied, no consensus was found on the stages and steps described during the development of a SI project. Even when the term "project" was identified, most of the papers did not explain the project into detail, only emphasizing some particular stage, or telling a story about it based on interviews (Harrisson, 2012), (Nemes, 2017) (Rocle and Salles, 2017). Table 2 presents the result considering which phases are approached by each one considering the six-staged model conceived by Mulgan (2006).

Neumeier (2017) presents a SI process based on a participatory process divided into three distinct stages: 'Problematisation', 'Expression of interest' and 'Delineation and co-ordination'. Problematisation is the identification of a need by a small group of actors, triggered by an initial impetus, external or internal to the actors involved (like a threat or impairment, emotional issues, or themes of interest to potential regional actors). This need leads to initial groups of actors looking for solutions to the identified need. Expression of interest: other actors join the core group of actors as they see advantages by taking part on it. Delineation and co-ordination: interested actors negotiate the new form of collaborative action/organization.

Table 2. Social development stages in literature review

Paper	Prompts	Proposal	Prototyping	Sustaining	Scaling and diffusion
Neumeier, 2016	X	X			
Schaffers et al, 2009		X	X		
Obata, 2012		X	X		
Fuger et al, 2017	X	X			
Rensburg et al, 2016		X	X	X	
Marti et al, 2016		X	X		
Altuna et al, 2015		X	X	X	
Ferrario et al, 2014		X	X		
Westley et al, 2014					X
Mazzarella et al, 2017	X	X			
Chou, 2017	X	X			

Source: own elaboration

Schaffers et al (2009) presents a methodology using living labs as an instrument for SI in rural areas and displays a model that comprises four major stages: ´Preparation', ´Prototyping examples and limited scale experimentation', 'extensive application development and field experiments', 'user-led co-creation'.

Obata et al (2012) presents a case study where the Fujitsu Lab researchers chose a participatory design method for conducting a Product Development project on SI for the aging society. They used the four phases presented by the MUST method. In the Initiation phase the main objectives are clarifying project objectives and the resources set aside to meet them. Stakeholders are to be identified, the project organization is formed, and an initial plan is produced. In the In-line analysis phase the main objective is clarifying and adjusting project relation to business and strategies related to information technology in order to identify the domains to be focused. In the In-depth analysis phase the purpose is to develop a detailed understanding of the domains and to establish a basis for prioritizing problems, needs, and ideas for improvements. Finally, in the Innovation phase the purpose is developing coherent visions for change including prototypes, ideas for re-organizing the work in question, an overview of new qualifications if needed, and a plan for visions.

Fuger et al (2017) presents an initiative using a crowdsourcing approach to SI and to improve conditions of low income communities, comprising four phases. The "research phase" has the aim of motivating all participants to share inspirations, stories, tools and successful examples on the challenge topic. In the "idea phase" participants were asked to propose solutions to the given problem. Best ideas were then selected via an applause phase by the community and experts to advance to the "refinement phase" where the community collaboratively refined those ideas. In the "evaluation phase", final ideas are selected to be funded.

Rensburg et al (2016) presented an approach for managing multi-stakeholder participation and community engagement in a science and technology research environment. The project is defined based on the needs of the community and framed by the broad themes identified (food resilience, and access to clean water and sustainable energy). During project initiation, the objectives and key performance indicators are identified and aligned with those of the institution and its employees. A key to the development and implementation of community-based projects was the establishment of the R&P (Research and Project Office) in the engineering faculty to manage community-driven research projects.

Marti et al (2016) developed the Experiential Design Landscapes (EDL) method, a design

research method aimed at designing for, and with people, in their natural environment, to find ways to support them in structurally changing their behaviour on a local scale and to address global societal issues in the long run. EDLs are environments, be them physical or virtual, which are part of society (e.g., designated areas in cities, sports parks, virtual platforms, etc.) in which a design research team meets people in their everyday lives. The EDL method is based on four processes: i) envisioning, ii) designing interventions, iii) acquiring data, and iv) analysing and validating this data.

Altuna et al (2015) presented a case study where the SI development process comprises four stages: i) Explorative phase, which leads to the identification of the social need to be addressed; ii) Strategic design, during which the intervention model is defined and where and how to change and innovate the process is decided; iii) Operative design, where the implementation of the intervention model occurs, the specific features of the new service are defined and the eventual system developed; and (iv) Launch and management, which consists in the launch of the new service in its operating management.

Ferrario et al (2014) describe a project management framework, which integrates agile and iterative development methods with approaches, namely Action Research (AR) and Participatory Design (PD). This framework aims to enable software development with an emphasis on SI in tightly constrained environments in a four-step process model: i) The Prepare step is grounded on Action Research principles and deploys qualitative research methods for initial user requirement capture; ii) the design step embeds Action Research and Participatory Design principles into the design process and aims to visualize and design systems which can address user needs; iii) the build step adopts a more traditional agile approach with short development cycles; it further refines user requirements and concludes with the release of a stable technology prototype; iv) The sustain step where wider partnerships are sought to support prototype long-term development and deployments.

Westley et al (2014) proposed a model with five distinct pathways of scaling up SIs shaped by: i) approach to change is revealed in the way an organization perceives its goals for change, and its vision of how institutions and structures could be altered to respond to particular social needs; ii) strength refers to the special advantages of the organization's chosen change strategies; iii) challenge refers to the difficulties inherent in the chosen change strategies which may hinder a move toward tackling system-level goals; iv) pathway for scaling up describes openings perceived by the organization for moving from scaling out to scaling up, conditioned by their earlier strategies and choices; v) risk refers to the inevitable downside associated with any chosen pathway for scaling up.

Chou (2017) proposed applying the design thinking method into social projects. The design thinking process is defined through three spaces which can be overlapped: i) inspiration is the cause of searching for solutions, such as social problems or possible opportunities appeared to surface; ii) ideation is the process of identifying ideas, developing and deepening targeted ideas and then testing them through experimentation or simulation; iii) implementation, which places selected project into the realization stage.

Mazzarella et al (2017) proposed a service design framework which supports the initial stages: Ideation and Design. This framework include multiple service design and co-design data collection methods were adopted as they complemented each other: ethnography (current state of the art of the local context), storytelling, sense making and co-creation.

3.2 SQ1: What are the challenges in SI projects?

The diversity of challenges faced by SI projects development are categorized in the following dimensions: Political, Processual, Institutional, Environmental, Human, Financial and Infrastructure (Table 3). The most cited challenges are related to the actors: lack of competencies, capabilities and skills to successfully develop SI projects and lack of engagement/commitment/involvement (locals, sponsors, social entrepreneurs and others). It is clear that the SI process requires attention to individuals; to what they think, to what they value, to how they behave, and to how interrelations between actors and social systems take place. Another challenge is lack of incentives and support in municipal, state and

local policies. Since SI bears, as a main goal, causing positive impacts on society which sometimes involves a change in legislation, it is expected that this kind of innovation may, in some cases, depends on government support. The number of challenges related to procedural and human dimensions is remarkable, thus proving that this is an area that presents several gaps in the whole development process and demands additional research.

3.3. SQ2: What methods and technological solutions have been applied for SI projects?

The methods and technological solutions identified were organized in Table 4, according to the SI stages where they are applied, mainly according to the purpose of each phase (Mulgan, 2006). Most of the occurrences of methods reported are located during the Proposal stage. This demonstrates that an effort exists to use methods and generate ideas and proposals for SI. It is common to hear about challenges, ideas, competitions, hackathons, and other initiatives dedicated to discuss and raise proposals for important societal issues. On the prototyping stage, most of the methods used were not detailed in the paper where they were mentioned. There was lack of reporting on how the SI projects were developed, managed and how the relationship between the SI actors during the development.

About technological solutions, only a few were reported. Marti et al (2016) reports the importance of interconnected products and services ecosystems, in order to successfully cope with the complexity of social challenges, although specific features of a supporting technological solution are not described. Schaffers et al (2009) proposes a platform based on open service-oriented architecture that allows for reusing and sharing services and applications.

Most of the papers did not mention how the project would be managed according to scope, cost, time or stakeholder management. Rensburg et al. (2016) was the only paper which proposed a Research and Project Office responsible for project operational requirements and ensured that project deliverables are met to specification and within budget. Ferrario et al (2014) was the only paper that mentioned the use of a project management methodology (PRINCE), but the paper didn´t presented detailed information according to this topic. Additionally, there was lack of information on how the SI project was assumed to be integrated with all the organizations and institutions involved. Although some papers had reported lack of funding or government support, there was no mention as to the adoption of methods to deal with this issue.

3.4 SQ3: What results have been achieved by the communities and government when SI projects are developed?

The main results achieved by SI projects were categorized in terms of the impact: impact on innovation system and sectoral strength, impact on regional policy instruments, business and entrepreneurship impacts, improvement of social and individual wellbeing (Table 5). Half of the papers mentioned information related to the impact or consequence of the SI project, most of them are related to economic impact.

4. Main findings

This systematic literature mapping raised a number of important observations:

Underdeveloped status of conceptualization of SI: wide multiplicity of SI definitions was observed according to its concepts and process. There is no shared understanding of SI is to be had, including clear differentiation from other concepts such as social entrepreneurship or technology innovation.

Reports on the development of SI projects: a scarcity of reports about the development of SI projects was ascertained. Although significant effort has been expended in approaching a definition for the term ‘social innovation’, little attention has yet been paid to the mechanisms that made it happen.

Focus on Proposal stage: most of the papers mentioned processes and methods related to the Proposal stage demonstrating that this stage may display higher level of maturity compared to the others. It may also portray projects emphasis on generating innovative ideas and not yet attention to their implementation and sustainability.

Lack of development details: considering that "Prototype" stage comprises development and prototyping activities, it was observed that, from the papers which mention activities related to this stage, only a few presented more information on prototype construction.

Lack of project management practices: most of the papers did not mention how the SI project was managed according to scope, cost, time or stakeholder management. Moreover, the monitoring aspect of these projects was not clear.

Open innovation paradigm: since SI involves the participation of several actors from different organizations and different sectors, it is natural that open innovation paradigm appears in this literature mapping. This paradigm pursues the collaboration of external resources (volunteers, innovation communities, third sector institutions, universities) which potentially create value for the project. Non-profit organizations and entrepreneurs represent an external source of new ideas, by bringing complementary competencies, such as knowledge of societal needs from particular disadvantaged social categories.

Government participation: Success is somehow dependent to government support. When government decides not to support the project anymore, the SI initiative faces difficulties.

Social actor engagement: The most-cited challenges are lack of competencies, capabilities and skills to successfully develop SI projects, and lack of actors' engagement/commitment/involvement (locals, sponsors, social entrepreneurs and others). These results are in line with the Social Innovation Index Report (The Economist Intelligence Unit, 2016), where the biggest barriers for SI are lack of time and talent to reach the best work done. Information related on what techniques and tools are used to maintain actors involved and how they relate and communicate along the project was also missing.

Table 3. Key challenges for SI projects

Key Challenges for social innovation projects development			
	Category	**Challenge description**	**Papers**
1	Political	Lack of incentives and support in municipal, state and local policies	(DUFOUR *et al.*, 2014), (TELLO-ROZAS, 2016), (QUANDT *et al.*, 2017), (ROCLE & SALLES, 2017),
2	Processual	Involvement of users in the design process	(FERRARIO *et al.*, 2014), (MARTI *et al.*, 2016)
		Lack of engagement/commitment/involvement of actors (locals, sponsors, social entrepreneurs and other)	(DUFOUR *et al.*, 2014), (FERRARIO *et al.*, 2014), (JUDIT *et al.*, 2016), (FUGER *et al.*, 2017), (NEMES, 2017), (STOKES *et al.*, 2017)
		Lack of understanding and measurement of social innovation impact	(STOKES *et al.*, 2017)
		Lack of common vocabulary and understanding between all the actors involved	(DAVIES & GAVED, 2017)
		Project management issues	(OBATA *et al.*, 2012)
		Gathering feedback to enable comparative evaluation of the pilots	(DAVIES & GAVED, 2017)
		Tools and techniques for engaging stakeholders in analysis and design	(OBATA *et al.*, 2012)
3	Institutional	Alignment of goals and priorities	(OBATA *et al.*, 2012), (RENSBURG *et al.*, 2016)
		Risk-averse and cautious organisational cultures of administrations	(NEUMEIER, 2017)
		Lack of planning for growth and developing sustainable business models	(STOKES *et al.*, 2017)
		Lack of institutionalisation	(JUDIT *et al.*, 2016)
		Changes in the project team (when an actor leaves the project)	(DUFOUR *et al.*, 2014), (TELLO-ROZAS, 2016), (MAZZARELA *et al.*, 2017)
		Institutional change	(RENSBURG *et al.*, 2016)
		Pursuing a scaling up pathway	(WESTLEY *et al.*, 2014)
4	Environment	Dependence on its local context	(JUDIT *et al.*, 2016)
		Lack of serious partners to dialogue with and the unavailability of partners to work with	(ALTUNA *et al.*, 2015)
		Lack of clarity about the return on investment.	(GASCÓ, 2016)
		Closed systems favouring single-issue solutions developed within clusters of organisations lacking mutual awareness, communication, networking and trust	(NEUMEIER, 2017)
		Participation of non-profit organizations	(ALTUNA *et al.*, 2015)
5	Human	Resistance to proposed changes	(DUFOUR *et al.*, 2014)
		Dependence on the individual, the agentic engine, who initiates and carries out the innovation.	(JUDIT *et al.*, 2016)
		Reluctance of some members to establish trust and dialog with outside institutions	(QUANDT *et al.*, 2017)
		Lack of human resources	(GASCÓ, 2016), (HOWALDT *et al.*, 2016)
		Lack of competencies, capabilities and skills to successfully develop social innovation projects	(DUFOUR *et al.*, 2014), (WESTLEY *et al.*, 2014),), (ALTUNA *et al.*, 2015), (HOWALDT *et al.*, 2016a), (NEUMEIER, 2016), (RENSBURG *et al.*, 2016), (NEMES, 2017), (STOKES *et al.*, 2017)
6	Financial	Availability and accessibility of funding	(HOWALDT *et al.*, 2016), (STOKES *et al.*, 2017)
7	Infrastructure	Issues related to network communications performance, quality and reliability among several distributed heterogeneous data (video, voice, images, text, etc.) entities	(MARCHETTA *et al.*, 2012)

Source: own elaboration

Table 4. Methods according to SI development stage.

Methods according to social innovation development stage	
Social Innovation Stage	**Method and Paper**
Prompts	Ethnography, Storytelling, Sensemaking, Co-creation workshops, Roundtable discussion (Mazzarella et al., 2017)
Proposals	Design Thinking (Chou, 2017) (Matsushita et al., 2015) (Tello-Rozas, 2015) (Garcia et al., 2010) (Rensburg et al., 2016) Hackathon (Tena-Espinoza-De-Los-Monteros, 2016) Ethnography, Storytelling, Sensemaking, Co-creation workshops, Roundtable discussion (Mazzarella et al., 2017) Public-Private Partnership (P3) (Abe et al., 2016) Design Science Research methodology (Rensburg et al., 2016) Communities of Practice (Rensburg et al., 2016) Agile development (Ferrario et al., 2014) (Schaffer et al., 2009) Action Research (Schaffer et al., 2009) (Ferrario et al., 2014) Data-enabled design (Marti et al., 2016) Experiential Design Landscapes (EDL) method (design research method) (Marti et al., 2016) Prince2 Management methodology (Ferrario et al., 2014) Participatory Design (Ferrario et al., 2014) (Obata et al., 2012) Open development model in form of a crowdsourcing initiative (Fuger et al., 2017)
Prototypes	PPP : Public Private Partnership (Abe et al., 2016) Design Science Research methodology (Rensburg et al., 2016) Communities of Practice (research, teaching and community engagement) (Rensburg et al., 2016) Experiential Design Landscapes (EDL) method (Marti et al., 2016)
Sustaining	PPP: Public Private Partnership (Abe et al., 2016) Open development model in form of a crowdsourcing initiative (Fuger et al., 2017)
Scaling	

Source: own elaboration

Table 5. Key Impacts for the development of SI projects.

Key Impacts for the development of social innovation projects			
#	**Impact categories**	**Description**	**Papers**
1	Impact on innovation system and sectoral strength	Improvement of information technology infrastructure availability and capacity due to enhanced attractiveness of rural area. Strengthening the local industry-university cooperation.	(SCHAFFERS *et al.*, 2009)
		Activation of regional economy and employment increases locally.	(ABE *et al.*, 2017)
		Several new co-operations, joint strategic thinking, planning in the field of rural tourism were identified, and local networks were significantly developed.	(NEMES, 2017)
		Social networks development and improved information flows have enhanced the development capacity of the whole region, thus benefitting everyone	(NEMES, 2017)
2	Impact regional policy instruments	Impact on regional development plans and part of economic development mechanism in the region.	(SCHAFFERS *et al.*, 2009)
		Recycling law has been approved to regulate the activities of informal recyclers	(TELLO-ROZAS, 2016)
		Success of the initiative prompted municipal authorities to try to copy it in other neighbourhoods	(TELLO-ROZAS, 2016)
		Build trust and social learning in local policy networks where experimentation occurred.	(ROCLE & SALLES, 2017)
3	Business and entrepreneurship impacts	New business possibilities in different sectors under the umbrella of new market regulation. Several examples related to business related cost and/or time savings	(SCHAFFERS *et al.*, 2009)
		Locals have their own webshop, and also deliver to five restaurants, some bio-shops, bakeries	(JUDIT *et al.*, 2016)
		More than 2,500 entrepreneurs and small technological-based enterprises had participated in the project from which 75 functional prototypes were produced	(TENA-ESPINOZA-DE-LOS-MONTEROS, 2016)
		Generating jobs and income within the cooperative territories so that farmers could improve their quality of life, as well as place sustainability.	(QUANDT *et al.*, 2017)
		Inhabitants have found many business opportunities connected to the folktale route	(JUDIT *et al.*, 2016)
		Initiative obtained high consideration by different stakeholders thereby attracting more economical resources	(SCHAFFERS *et al.*, 2009)
4	Improvement of social and individual wellbeing	Seniors involved are not afraid of technology anymore Increasing of number of citizens with innovation competencies and skills.	(GASCÓ, 2017)
		Launching of new initiatives to improve other aspects of living conditions in Cerro el Pino.	(TELLO-ROZAS, 2016)
		Improvement, perceived by the students, of linguistics and communication skills, self-direction and positiveness, a spirit for challenge, cooperation and flexibility, a sense of responsibility and mission, understanding of other cultures, sense of identity, sense of social contribution to local people and communities	(MATSUSHITA *et al.*, 2015)
		Increase in local human capital has been observed. The inclusion of capacity-building activities as an important element of the initiative has helped to improve the skills of some local community members.	(TELLO-ROZAS, 2016)
		Many stakeholders have recognized the positive effect of the exploratory reflection they conducted, thus allowing coproduction of knowledge and a questioning of critical assumptions about the future of their activity, their city and their lives.	(ROCLE & SALLES, 2017)

Source: own elaboration

Technological solutions to support the development process: only a few were reported, and they focus on technological platforms to support the SI ecosystem, although these supporting platforms features are not yet clearly defined.

Results time-frame: No time restriction was placed on the search, but the majority of results date from 2012-2017, showing a degree of novelty of this research field and the need for more scientific research on the topic. The field gained interest after the global financial crisis in 2008.

Social innovation results: most papers do not present any information related to the impact (positive or negative) of SI developed. Those which reported some impact, showed mostly economic results.

Conclusions

This paper reported a systematic literature mapping in the field of social innovation (SI), with the goal of identifying the state of art on the development of SI projects. 28 papers from a gross total of 576, were selected and evaluated. It was shown that research on several topics related to the development of SI projects is still scarce. SI development processes - from ideation to implementation and scalability -are not completely described, no detailed information exists about the use of methods and tools, lack of implementation results, lack of project management information, and very limited knowledge on relationship between social actors or on how skills can be developed to manage SI projects.

This raises the question: why are there so few studies presenting the development of SI projects? Probably, this is so because SI may not be seen by all authors and researchers as the result of a development process, considering that these projects are conducted in an ad-hoc basis. Based on the fact that a project is an endeavour undertaken to create a unique product or service and that many authors identify SIs as a response to the greatest social challenges that the world currently faces, why do not consider the development of a SI as a temporary endeavour undertaken to create a unique social product or social service, that is, a project? Or maybe it is an open project once it is developed crossing organizational boundaries?

Considering that there are thousands of SI initiatives around the world (Howaldt et al., 2016), methodological approaches which improve and support this development process, engage the actors, support knowledge exchange, and respect the requirements of this type of innovation, have the potential to increase the number of SI projects that reaches implementation, escalation and, in the end, effective social impact.

To take into account the complexity of SI, further research is needed for proposing development methodologies considering an environment formed by multiple actors, the local context needs, the relationships between actors, where cross-sector collaboration is crucial to overcome social demands and societal challenges, actively involving public, economic and civil society partners (Howaldt et al., 2016). Probably these solutions call for significant collaboration and co-creation methodological and technological solutions based on participatory design and a human-centred approach.

What is clear is that SI is already a force for positive change in many developed and developing markets alike; that it is being incorporated in public and private administration, analysed by a variety of , and pursued by entrepreneurs and investors. Future studies related to its development process will raise the positive results achieved by this type of innovation.

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Annex I - Litterature Review Protocol

Scope

The literature review scope was defined according to the PICO approach (Pai et al., 2004, apud Magdaleno et al., 2012), which structures the research question into four basic elements: i) **Population:** academic papers reporting experience with the development of social innovation projects; ii) **Intervention:** process, methods, methodologies; iii) **Comparison:** not applied in this study; and iv) **Outcomes:** Activities performed during each social innovation development stage, challenges for social innovation development, tools, methods or methodologies used during social innovation development; and results obtained from social innovation projects development.

Search strategy

The search strategy included the following electronic databases: Scopus, Compendex, IEEE Xplore, and Web of Science. The ACM Library, despite its importance, overlaps with the IEEE Xplore library; its content is also indexed by the Scopus library. As social innovation has received attention from many organizations and foundations globally, and Google scholar contains many reports generated by these initiatives, decision was made to include a sample of documents from this electronic database.

Keywords

Keywords were constructed considering (Kitchenham et al., 2007): terms in population and intervention (Section 3.1.2); alternative spellings and synonyms for these terms.

The complete list of keywords used in this systematic literature mapping is given below. Population and intervention are the same to the main question (MQ) and to every secondary question (SQ), since these comprise subsets of the main question.

Research questions keywords, according to PICO:

- Population: “social innovation project” “social innovation implementation”
- Intervention: methodology, technique, network, ecosystem, method, process, framework
- Comparison: not applied.

Inclusion and exclusion criteria

This mapping includes every article returned by the protocol which meets **at least one of the following criteria for inclusion** (IC) and does not meet any of the criteria for exclusion (EC):

- IC1—Documents must address social innovation;
- IC2—Documents must discuss challenges for the development of social innovation projects;
- IC3—Documents must present proposals for the development of social innovation projects;
- IC4—Documents must report experiences from organizations or communities which have implemented one social innovation.

Publications satisfying at least one of the following EC were excluded:

- EC1—Documents not written in English;
- EC2—Documents whose full text is not available;
- EC3—Documents not addressing the development of social innovation projects;
- EC4—Documents clearly dealing with topics irrelevant to the purpose of this mapping;
- EC5—Documents addressing social innovation, but focusing on legal or social aspects and not on the development process itself;
- EC6—If the same study has been published more than once, the most relevant version (i.e., the one explaining the study in greatest detail) will be used and the others will be excluded;
- EC7—If a given study has been selected for a broader research question, it must be excluded from the list of selections for the narrower research question.

Selection Process

The process related to the selection of articles occurred in four steps: i) Selection and preliminary organization of selected documents: preliminary selection of publications was made by applying the search string to selected data sources; ii) Selection of relevant papers: primary selection using the search string. After the identification of publications via search engine, documents were retrieved in view of the inclusion and exclusion criteria; iii) Evaluation of relevant papers: the other author evaluated the list of documents selected; iv) Information extraction from relevant documents: after defining the final list of relevant documents, one of the authors read the latter to extract information on how social innovation projects are developed.

CITIZEN PERCEPTION OF OPEN DATA AND INNOVATION IN MEXICO

PERCEPCIÓN CIUDADANA DEL OPEN DATA Y LA INNOVACIÓN EN MÉXICO

José G. Vargas-Hernandez & Carlos Estrada Zamora*

University Center for Economic and Managerial Sciences
University of Guadalajara
*Corresponding author: carlosestradaz@gmail.com

Abstract: This paper analyses the environment of open data and its perception by Mexicans based on the National Survey on Access to Public Information and Protection of Personal Data (ENAID) 2016 and the Survey on Public Perception of Science and Technology (ENPECYT) 2015. The literature review was focused on the open data age represents a new social paradigm that has revolutionized the way that people and organizations obtain, analyze and use large amounts of information to make decisions. Mexico has mechanisms and platforms for access to open data, however, their use and contribution to real innovation is unknown. This paper focuses on this problem; the data reflect important weaknesses in the perception of the implementation of open data, along with low interest on innovation and ignorance on it.

Key words: Open data, data science, open government, innovation.

Resumen: Este trabajo analiza el entorno de los datos abiertos y su percepción por parte de los mexicanos a partir de la Encuesta Nacional de Acceso a la Información Pública y Protección de Datos Personales (ENAID) 2016 y la Encuesta sobre la Percepción Pública de la Ciencia y la Tecnología (ENPECYT) 2015. La revisión de literatura señala, que la era de los datos abiertos representa un nuevo paradigma social que ha revolucionado la forma en que las personas y las organizaciones obtienen, analizan y utilizan grandes cantidades de información para tomar decisiones, México posee mecanismos y plataformas para el acceso a datos abiertos, sin embargo, se desconoce su utilización y contribución a la innovación real. Este trabajo se enfoca en este problema, los datos reflejan importantes debilidades en la percepción de la implementación de datos abierto así como escaso interés en la innovación e ignorancia sobre la misma.

Palabras clave: Datos abiertos, ciencia de datos, gobierno abierto, innovación.

Introduction

The "data revolution" is a phenomenon triggered worldwide by the proliferation of the use of mobile devices and the internet; consists in obtaining large amounts of data on things that people and organizations perform through computer systems, storage, processing and subsequent use for decision making in different formats and applications (IEAG, 2014, Janssen, Konopnicki, Snowdon and Ojo, 2017). Technology has evolved in such a way that the capacity to obtain data is gigantic, the range of things on which there is data is enormous, and the diffusion of them through various "data products" multiplies the possibilities to know and analyze phenomena from different angles (IEAG, 2014, p.6).

In this context, the United Nations (UN) developed a work approach within its attributions, for the generation of policy frameworks that promote development for global well-being through the use of data (United Nations Global Pulse, 2016). These

actions reflect the relevance and great interest that people around the world are placing on the use of data. Taking into account as fundamental principles for the data revolution the "freedom of information" and "open government data" (Afful-Dadzie and Afful-Dadzie, 2017, p.665), this article reviews the good practices documented by the scientific community that works on innovation issues at the same time, also discusses the perception of Mexicans about the policy of access to public information and innovation carried out by the Mexican government.

Big Data - as it has also been called this data revolution - requires a particular technological development so that large volumes of information can be "captured, managed and processed in a reasonable time" (Pérez Marqués, 2016, p.1). To do this, software such as Hadoop has been developed, which allows communicating with physical infrastructure with a large capacity for data storage, processing, crossing and output of information from large repositories (Pérez Marqués, 2015).

Undoubtedly, when referring to open data, especially those that have content about what people do and that may be sensitive, they require standardized legal frameworks that guarantee their protection. Respect of this, Galindo (2014) points out that the open data must be arranged according to the regulation of reuse of open data, protection of personal data, delimitation of responsibility for the provision of services and the one that provides guidelines for the exercise of specific administrative services. On the other hand, innovation is a very important factor for the economic growth and profitability of organizations over time based on knowledge and specific social, economic and political factors (Espejel García, Barrera Rodríguez, Cuevas-Reyes, Ybarra Moncada and Venegas Venegas, 2017; Schumpeter, Opie and Elliott, 1983).

According to the study by Canales and Álvarez (2017), "financial restrictions" are one of the main causes for generating innovation, because organizations always work in search of new opportunities for their economic success. The innovation in the environment of the organizations pushes the strategic development of actions that allow them, the creation of value in "the areas or services that present the most deficiency", from an adequate integration with its context (and the investment in research and technological development -imprescindibles-), that allows them "a substantial advance that corresponds with the system's demands", and that this, gives its target market "more reliability and credibility" (Hernández, Cardona and Del Rio, 2017).

Making a conjunction of the terms addressed in this introduction, Open Data allows innovation from different ways, that is, from a more integral approach, because the transformations in governments to make large amounts of data available to people, not they only represent a novelty for the public administrations in front of the citizenship, if not that, it produces more innovation by allowing access to the open data to individuals (citizens and organizations), so that these, in turn, produce new proposals that help solve problems (Janssen et al., 2017; Reggi and Dawes, 2016).

Governments must change, reorganize their structures and include in their operational policies the models of action that allow an adoption according to the new paradigm that open data is imposing, Janssen et al. (2017) compiles from six investigations in the matter, that these transformations must be carried out around the "policies and strategies", at the "organizational" level, in the "governance of the data" and in the deployment of infrastructure and at the technical level, for the consummation of this aforementioned data revolution.

For this work, the data collection effort made by the Mexican government through its National Institute of Statistics and Geography (INEGI) in its National Survey on Access to Public Information and Protection of Personal Data (ENAID) was taken as a framework for analysis, 2016 and the Survey on the Public Perception of Science and Technology (ENPECYT) 2015. Collectively, they reflect the public perception of, access to public information provided by the government, and the science and technology activity that generates innovation in the country. Both works allow analyzing and establishing a frame of reference about what Mexicans assume is done in the matter by public institutions.

1. Background

Governments, as main social leaders, have played a transcendental role in the development of this data revolution, through government Open Data policies for transparency and access to public information, of which, various initiatives have been consolidated to generate quality data for citizens and institutions (public and private). The government to take initiative in this regard was the United States, during the administration of President Barack Obama (Okamoto, 2017) in January 2009.

Initiatives on open public data platforms had their beginnings and are mostly applied in developed nations such as Germany, the United Kingdom and Canada. However, in countries such as "Kenya, Morocco, Tunisia, South Africa, Uganda and Cameroon", they have started already to work on Open Data initiatives that contribute to generating opportunities for innovation in these developing countries (Amugongo, Nggada and Sieck, 2016).

Mexico, according to the Open Data Barometer of the (World Wide Web Foundation, 2018), is in the 11th position worldwide in the development of its open data policy according to the measurement of the year 2016. This, due to the policies, laws, regulations and guidelines on digital inclusion and, transparency and accountability, which since 2013 the Mexican government has promoted and shared with other multilateral agreements such as the "Digital Agenda of the Pacific Alliance" (Pacific Alliance, 2017 General Congress of the United Mexican States, 2015, Presidency of the Republic, 2013, 2015b, 2015a).

Innovation in open data policies has had significant obstacles to its implementation in government administrations, according to Chatfield and Reddick (2018) these obstacles come from sources of resistance "political, bureaucratic, and institutional", due to the implications in terms of surrender of accounts, personnel and allocation of resources to carry it out. For this reason, the aforementioned authors found in their study the importance of disseminating the advantages of innovating in Open Data Government for society, starting with "the first adopters" until achieving generalized (or mostly generalized) awareness of their advantage.

In terms of innovation, since the Second World War, governments around the world have promoted policies with a "structuralism" approach that has integrated various sectors of society and international organizations for their conformation. These policies have focused on specific to the interests of nations (Loray, 2017).

2. Theoretical-conceptual review

Several countries around the world have developed online platforms to have open data that can be used by citizens, institutions and the business sector, to add value to their functions through innovations that are contributing to the resolution of their daily problems.

The work of Munigala, Oinonen and Ekman (2018) analyzes the success of the Finnish educational system from a case on the perspective of the design of innovative environments that allow people to be agents of change (the students in that case), this, through the generation of scenarios that enable the resolution of problems from a holistic, personalized, flexible and collaborative perspective.

Namibia works to develop an open data portal based on good practices from leading portals worldwide. Amugongo et al. (2016) conducted a content analysis of the Open Data portals of the United States, the United Kingdom and Kenya, of which they identified the opportunities to improve the portal scheme (in beta version then) of Namibia and, from this, they project that it becomes an "essential driver of innovation" by shortening the gap "between data and citizens". Also the work of Seegolam, Sukhoo and Bhoyroo (2016), talks about the benefits that for Kenya has brought the implementation of government open data portals and the great opportunities they can offer for nations with a low level of development and high marginalization.

According to Blal, Singal and Templin (2018, p.86) the innovation of a business model redefines an existing product / service and the way in which it is provided to the client, which opens up new possibilities in the market existing to catch a certain audience. They developed a model in which they determined that "the performance of sales" of the service of intermediation for accommodation on the

Internet Airbnb is given by: the location of the accommodation, the concept of accommodation offered, the guest segment to which it is addressed, the price, the offer of accommodation options, the recommendation of other users about the place that is offered and the season of the year.

Zopiatis and Theocharous (2018) analyzed another case where innovation in the hospitality sector was benefited thanks to the implementation of innovative human resources strategies with the hotel staff of Cyprus, which was affected by the Greek economic crisis in 2013, after the bankruptcy of its banking institutions. By improving the organizational culture based on the results of a study, the staff improved their commitment to the organization thanks to the opportunities provided to them to contribute in a participatory way in the improvement of the same.

The open innovation that drove Open Data policies in the Brazilian government through the participation of citizens in its conformation, according to Freitas and Dacorso (2014), represented a great challenge for that government, due to the resistance and apathy of the community to collaborate with the government in the creation of public policies through the platforms developed for it, however, laid the foundations for the development of new schemes that allow this to occur in the future.

New forms of social and private participation have arisen towards the reuse of data such as hackatoons, living labs and data collaborators, which correspond to initiatives that push governments to transformations for the data era, where its commitment to generate innovation from these initiatives pushes the public organization to pay attention to the "governance of data" and the establishment of incentives to achieve it (Janssen et al., 2017). Reggi and Dawes (2016) developed, from a case study in Bologna, Italy, an innovation ecosystem model using Open Data Government, based on the study of the framework that leads to the publication of open data and the interdependence of its elements, in which they found the importance of political benefits, the creation of policies and the participation of society, to generate applications for the benefit of the population.

Another interesting approach focused on innovation in scientific research is that posed by Rusyaeva and Saltykov (2017), in which they establish a series of life cycle stages of research innovations for science, which they classify based on their contribution to new knowledge (ranging from the least solid approaches to the most consolidated knowledge by the scientific community). This approach is an interesting and highly useful framework in determining what really innovates and what lacks profitability as an innovative idea.

3. Research method

This article takes as a matter of analysis two data collection works carried out by INEGI (Mexico) together with other institutions such as the National Council of Science and Technology (CONACYT) and the National Institute of Transparency, Access to Information and Data Protection Personal (INAI): the National Survey on Access to Public Information and Protection of Personal Data (ENAID) 2016 and the Survey on Public Perception of Science and Technology (ENPECYT) 2015, the first conducted between January and April of the year 2016 and the second during the year 2015.

The National Survey of Access to Public Information and Protection of Personal Data (ENAID) 2016 according to the National Institute of Statistics and Geography of Mexico and the National Institute of Transparency, Access to Information and Protection of Personal Data of Mexico (2016, sp), aims to obtain statistical information that allows to measure the degree of knowledge, perceptions and attitudes that influence the exercise of rights of access to information and protection of personal data.

The work mentioned in the previous paragraph was applied to people over 18 years of age in 14,400 homes (urban areas over one hundred thousand inhabitants) nationwide (Mexico), with a confidence level of 90%, and a margin of error of 8%, using a probabilistic sampling "multi-stage, stratified and by conglomerates".

For its part, in the design of the Survey on the Public Perception of Science and Technology (ENPECYT) 2015, it was established as an objective "to gather relevant

information for the generation of indicators that measure the knowledge, understanding and attitude of people, related to scientific and technological activities "(National Institute of Statistics and Geography of Mexico and National Council of Science and Technology of Mexico, 2015). In this particular work, given that the objective is very broad for our work, we take into account the results related to sections "B" ("Information sources of science and technology") and "E" ("Perception of the social role of science and technology, basic research, scientists and government ") of said survey.

The survey referred to in the previous paragraph, was raised between September 14 and October 13, 2015 among people over 18 years in 3,159 homes (located in urban areas of more than one hundred thousand inhabitants) a level of confidence of 90%, and a margin of error of 15%, made by stratified sampling, "by conglomerates and two-stage which will allow inferences to be made for the addition of the units under study". From the data obtained from open access in database format (.dbf) from the section of "microdata", of each of the sections of the aforementioned surveys, on the INEGI website (National Institute of Statistics and Geography (Mexico), 2018), the following actions will be carried out for each:

Of the survey on Public Perception of Science and Technology (ENPECYT) 2015, only the basic review of the descriptive statistics (frequency tables) of the variables of interest of this work was carried out.

Based on the data base of the National Survey of Access to Public Information and Protection of Personal Data (ENAID) 2016, a multiple linear regression analysis was carried out in addition to the frequency tables with the results, to identify the statistical significance of the variables regarding the use of government data by Mexicans, we were particularly interested in this study the sections on: "Perception and knowledge on the right of access to information", "Consultation on procedures and services" and "Obligations of transparency".

Finally, the results analysis was carried out that include the results on the variables studied, accompanied by the corresponding interpretations regarding the study theme of this work. Conclusions are made with the learning and results of this work, the contributions to knowledge and recommendations for future studies in the field.

4. Analysis of results

As it was approached in the methodological approach of this work, the items that were considered relevant for the study of the innovation that the Survey on the Public Perception of Science and Technology (ENPECYT) 2015 collected from the percentages of the frequencies of the answers of the database of said survey.

Subsequently, a linear regression analysis is made from the dependent variable in the questionnaire: people who stated that they would prefer to use "internet" to obtain government information. On the independent variables: those corresponding to the questions were introduced: "If you would like to know government information, what means do you identify to obtain it?", "In 2015, for daily life, for work reasons or to be informed, what type of information does the government generate? “and" in general, do you believe that obtaining information generated by the government is ...?

a. Innovation

The first interesting data is the percentage of affirmative answers regarding the interest in being a researcher (4.8%), academic researcher (4.4%) or inventor (3.3%), that is, very few declared interest in engaging in activities that can be considered much linked to innovation. When the participants were questioned about the dimension of their interest in new inventions, scientific discoveries and technological development", they answered: Very large (9.6%), large (28.4%), moderate (37.5%) and Null (24.5%), evidencing an intermediate interest in these issues by the participating population, in addition, the survey, with the objective of measuring the reasons for this last questioning, showed that these are not of particular interest to the participants these subjects (8.4%) or do not have time (5%), ignores them (5.6%) or does not understand them (5.3%).

Likewise, another part of the study focused on the means of accessing information on "scientific developments" (item more closely related to innovation), to which the participants

responded that they give more importance to inform themselves about them, to the Internet (36.5%) and television (16.9%). It is important to note that, 62.5% of the participants said that they access the Internet.

Another of the questions in the study, touched on the level of confidence perceived by citizens regarding the knowledge domain of the government against science and technology issues, to which the participants responded that it is: "very reliable" (1.2 %), "Reliable" (15.2%), "unreliable" (41.4%) and "not at all reliable" (40.4%), leaving very clear their perception of distrust in the subject when the government provides such information.

Participants were also questioned about their perception of the "understanding" of the concepts: innovation (highlighting the answers "regular" with 43.1% and "bad" with 22.9%) and invention (repeating "regular" with 43.1% of the answers and "bad" with 26.5%). The conjectures are left to the results shown. In the same way, the participants were asked about science and technological development, particularly in terms of whether the role of scientific research for technological development is fundamental, affirmation, for which - 65.1% of the participants- answered "in agreement".

As for whether the internet "is essential for the development of new economic activities", 59.2% of the participants said they "agree" with this statement. While, with the affirmation of whether the Internet "will help improve the quality of life of people," 43% of respondents answered "in agreement" and 36.8% said they "disagree". It should be noted that, in the three previous questionnaires, the response rate of the "strongly agree" option exceeded 10% of the responses, so there is a strong tendency to support these statements by the respondents, except in the case of the last one.

On the other hand, in the section of the study that includes the affirmation about whether "the government should invest more in scientific research", the participants showed their support mostly (87.7%) in favor. Affirmation supported by the questioning about the perception of the amount invested by the government in "support for scientific research", in which, 68.7% responded that they believe it is "very little".

Finally, within the topics that are of interest for this work, it is observed the results that questioned about the perception of importance of the participants about the institution that "makes the most important developments in science, technology and innovation", where only 0.9% of the participants considered the "government" as a fundamental part for this kind of development and, 8.8% of the participants, considered that those who contribute most to this area, are the "research centers".

b. Access to public information (Open Data)

In this section, the multivariate statistical analysis is performed with the variables indicated in the introduction of this section with the data of the National Survey of Access to Public Information and Protection of Personal Data (ENAID) 2016, as well as the analysis of the statistics of frequency that some variables of said survey provide and that are of interest in this work.

The multiple regression analysis, according to Mejía Trejo (2017, p.191), is a "more versatile and widely used dependence technique, applicable in any field of administration sciences", consisting of the definition of a variable dependent and a group of independent variables and determine the power of the occurrence of the dependent variable for each occurrence of each of the independent variables.

The answer option "internet" of the question "How would you like to hear about the information generated by the government?" was used as a dependent variable, due to the interest of this work to approach the nearest perspective of the stock data of said survey on the use of Open Data. As independent variables, 24 answers were used corresponding to the questions posed in the second introductory paragraph of this section.

Although the generated model did not obtain values consistent with their coefficients of determination r2 (greater than -generally accepted in economic-administrative studies- 60%), mainly due to the deficiencies in the disposition of the values in the base of data (and that the validation of the statistical consistency of the base of "Microdata" provided by INEGI

is outside the reach of the objective of this work), in addition, the variables used can measure different elements at a qualitative level and, it is also taken consideration of the high sensitivity of the model due to the fact that it worked with a very large sample. However, the following were found as statistically significant values for the dependent variable:

Search for information on the government website; search in transparency portals; they look for information about legislation; they look for laws of right of access to information; look for requirements or procedures of government services; they are concerned about the ease or difficulty of accessing government information; they are not interested in information about the government; information on social programs; seek information about political parties and elections; they look for newspapers or official publications; do not know what government information to use; seek information about public hospitals; government employment exchange; they look for the governmental organization chart; they look for information about combating poverty; they look for data on emergency services; prefer the information of the transparency offices and; they consult information about drinking water services.

As an interpretation of the theoretical value of the aforementioned variables, it is assumed in the order in which they were mentioned, their greatest power to affect the model when people prefer to use the Internet to learn government information.

Interestingly, 38.3% said that they consult government websites to get information, 14.7% prefer to go directly to a government office to request information, and 10.5% said they visit government sites to consult official journals. In addition, 40.5% of the interviewees said that it is difficult to obtain information generated by the government and 36.6% said that it is easy for them to carry out said action.

Regarding the information that people search on the internet about the government, 27.6% highlight public hospitals, 26.4% health campaigns, 27.7% on public schools, 24% potable water service, and the highest percentage is 43.6% of requirements for procedures or services. About the means, by which they prefer to obtain information from the government, stand out the television with a 57.3% and with 38.2% the Internet. 96.9% of respondents say that government information should be available to all. On the other hand, 50.4% of the participants in the study said they do not know about the existence of the law that guarantees access to public information, while 48.7% said yes.

In the case of services based on open data, the participants in the study were consulted on various topics, for example: consultation on the location of places (the highest percentage responded was 34.9% that does it through the internet), climate (highlighting: 39.8% do it through television and 23.1% use internet), about procedures and public services (18.9% use internet and 11.7% go directly to a government office), public transport (8.6% on the internet, 8.2% directly with the provider of the service and by friends or relatives 5.3%, as the most noteworthy), and health information (21.9% directly in the institution and 14.5% online, mainly).

Regarding the economic situation of the country (20.9% through television and also highlighting 12.2% through internet), on issues related to public education (18.7% through Internet, 11.5% directly at school or office and 10.7% through television), about natural disasters (37.2% through television and 16.6% through Internet as outstanding values), about traffic (12.9% through television, 8.9% through radio and 11% over internet), government releases (18.8% over the television and 9.6% by internet as maximum declared percentages), social programs (14.1% through television and 10.5% via internet in a significant way), political parties (16.3% through television and 8.1 over the internet).

In terms of confidence in the information provided by the government, the topics with the highest weightings were: 50.9% natural disasters, 37.6% public health services, 35.7% public education. The subjects in which they distrust most manifested were: 48.8% elections, 36.4% on the performance of the governments, 36.4% the state of the economy, 34.4% on the salary and salary of public officials, 33.8% on the use of money public and 29.7% in the reduction of poverty.

They also reviewed the type of information queries that people declared they made online on government websites, of which it stands out: only 7.9% said they consulted information about the structure, 6.2% consulted about the

directory, salaries and civil servant profile, 5.9% reviewed citizen participation programs and 12,306 people declared that they made other types of consultations not contained in the form. On those consultations, only 11.9% said that "yes" found what they were looking for, 11.7% said it was free, 11.3% said they found this information useful, 11.2% said it was available online, 10.8% said that if it could be visualized in multiple devices, 10.1% said that it was easily accessible and 9.8% said that if it was complete and it solved its doubt, mainly.

Finally, regarding the accessibility and management of the government pages, 10% said that they are, and said that 7.4% of users said they were "somewhat satisfied", mainly.

Conclusions

The innovation, coming mainly from the scientific and technological development, according to the data that the ENPECYT showed, shows the low interest and knowledge on the development of innovations that the Mexicans manifest. Who, despite having access to technological tools, such as the Internet, said they do not have enough support and solidity from government institutions to generate sustained development of such a fundamental activity: innovate.

The main and richest analysis of this work was focused on the data that the ENAID 2016 showed, from which interesting relationships emerged from the way in which people consult information generated by the government, based on their taste for accessing data of this type through the Internet. Thus, it can be considered that most of the information consulted by Mexicans about the government is related to the functioning of the government, such as services, procedures or activities related to government work.

Although a high percentage of users said that they access information about the government through the Internet, public institutions and the platforms they have set up to do so, they are not at all friendly (accessible) to dispose of said data. The tables of frequencies that this latest survey shows a high dependence on television (still) as the main information medium, as well as the high preference to look for information directly in the windows of the government or the institutions of those who need it.

Regarding the information provided in online platforms based on government efforts in Open Data, such as access to maps or the climate, percentages of moderate consultation are maintained, as well as for e-government (online government services). However, the level of distrust in the information provided in the government portals is enormous, especially in information on issues that may be related to acts of corruption or misuse of public resources.

At the moment, with the data available, Open Data for innovation in Mexico is far from being a causal relationship fully consolidated as in other countries, although there are efforts to open the information through open data portals, the layout, the formats and their configuration for easy use, are far from being effective, as long as people are not trained or develop applications to understand more easily the data that are available there. While not having a population group with better technological capabilities, the use of open data will remain limited, taken advantage of by a few, and for this it is necessary to provide knowledge to the population for the understanding of innovation as a fundamental activity for the survival of their organizations through effective decision-making (better informed and competitive).

It should be noted that the data presented here does not directly measure the relationships of Open Data for innovation, but rather that it uses information resources that allows approaching the problem through indicators that can be used as a reference to weigh scenarios for both variables.

This work aims to contribute to the generation of awareness by governments, to promote policies to better measure the data revolution, to evaluate their work as providers of vital information for decision making of individuals and organizations and, not only to be providers of transparency information and governmental procedures, but also valuable repository givers to contribute to the development of the nation.

In the future, it is propose the evaluation of Mexican Open Data portals, to contrast their configuration and demand, with those of other countries that generate good practices in the matter. Likewise, the bibliometric or documentary research of the success cases of

open data applications in the country, in order to contribute to the formation of a more consistent analytical framework, analyze and better understand this revolution of open data in an empirical way.

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INNOVACIÓN SOCIAL Y TECNOLÓGICA EN LA ACTIVIDAD ARTESANAL DE MADERA EN LA COMUNIDAD DE DZITYÁ, YUCATÁN

SOCIAL AND TECHNOLOGICAL INNOVATION IN WOODCRAFT ACTIVITY IN THE DZITYÁ COMMUNITY, YUCATÁN

Ana Cristina Puc Cruz, José Francisco Sarmiento Franco,
Alfonso Munguia Gil & Gustavo Monforte Méndez*

Tecnológico Nacional de México / Instituto Tecnológico de Mérida, México
*Corresponding author: anacristinapuc@hotmail.com

Abstract: One the effects that globalization has brought, in addition to the socio-environmental impacts, is the promotion of technological innovation as a means to introduce new products and processes to the market and, in this way, promote economic growth. However, this growth does not consider its negative socio-economic implications, such as the increase in inequality, the loss of values, of the culture and ways of life of rural populations, and ecological, such as climate change and environmental deterioration. In this context, in the last decades the debate has arisen on the concept of social innovation that refers to new ideas, forms of social organization, new processes, new products, and new public policies that strengthen culture and help solve social and environmental issues from a sustainable development perspective. To this end, Higher Education Institutions play a very important role as promoters of knowledge and its application to solve the various problems that societies face, especially in the field of sustainability. The Dzityá Police Station in Yucatan has as its main source of income the elaboration of handicrafts of turned wood and stone carving, reason for which the artisans look for innovative alternatives in which they can market their products. For this reason, a group of local artisans and other state communities' under-take activities that contribute to the promotion of artisanal culture and fair trade in the locality.

Key words: Innovation, Technology, Culture, Crafts.

Resumen: Uno de los efectos que ha traído la globalización, además de los impactos socio-ambientales, es el fomento de la innovación tecnológica como un medio para introducir nuevos productos y procesos al mercado y, de este modo, fomentar el crecimiento económico. Sin embargo, este crecimiento no considera sus negativas implicaciones socioeconómicas, como el aumento de la desigualdad, la pérdida de valores, de la cultura y de los modos de vida de las poblaciones rurales, y ecológicas, como el cambio climático y el deterioro ambiental. En este contexto, en las últimas décadas ha surgido el debate sobre el concepto de innovación social que se refiere a las nuevas ideas, formas de organización social, nuevos procesos, nuevos productos, y nuevas políticas públicas que fortalezcan la cultura y contribuyen a resolver problemáticas sociales y ambientales, desde una perspectiva del desarrollo sostenible. Para ello, las Instituciones de Educación Superior, juegan un rol muy importante como promotoras del conocimiento y de su aplicación para la resolución de los diversos problemas que las sociedades enfrentan, especialmente en el ámbito de la sostenibilidad. La Comisaría de Dzityá en Yucatán tiene como principal fuente de ingresos económicos la elaboración de artesanías de madera torneada y tallado de piedra, motivo por el cual los artesanos buscan alternativas innovadoras en las cuales puedan comercializar sus productos. Por tal motivo, un grupo de artesanos locales y de otras comunidades del Estado emprenden la realización de actividades que contribuyen en la promoción de la cultura artesanal y el comercio justo en la localidad.

Palabras clave: Innovación, Tecnología, Cultura, Artesanías.

Introducción

Al hacer referencia sobre las artesanías implica tener en mente una pluralidad de situaciones relacionadas con la producción y la comercialización vinculados con un conjunto de particularidades culturales, producto de determinadas condiciones históricas concretas que se vincula a factores tecnológicos, económicos, políticos, demográficos y simbólicos (Rotman, 2003).

El autor hace mención acerca de la elaboración de productos artesanales, la cual es continuamente apreciada como una expresión privilegiada de "lo local" que establece un interesante fenómeno económico-cultural desde donde pensar todos los aspectos que conllevan a la producción artesanal. Si bien, la elaboración de productos artesanales está ligada a diversos factores como lo menciona Rotman (2003) al principio; sin embargo, uno muy importante y que el autor no toma en cuenta es el que mencionan Domínguez, Hernández y Toledo (2004), que, para actualizar el sector artesanal, con vista a la actividad de la tecnología se debe fomentar la innovación en los procesos de producción artesanal.

Para las empresas artesanales debido a que se constituyen a través de las creencias y experiencias adquiridas en el pasado, las cuales en muchas ocasiones son bastante arraigadas les es difícil cambiar o aceptar lo nuevo. A pesar de ello hay empresas que tienen el deseo de salir adelante por lo que tratan de adaptarse a los cambios tecnológicos, buscando no afectar la manera tradicional en la cual se distingue a una artesanía.

Muchos artesanos prefieren seguir con las alternativas tradicionales que han sido parte de su familia por mucho tiempo, es por ello que cuando surge alguna tecnología nueva que pueda facilitar su producción, ventas, administración, y comercialización, primero analizan los beneficios que pueden obtener y la facilidad de adquirirla para después decidir si la adoptan.

En consideración a lo que se ha establecido y lo que se pretende abarcar en el presente trabajo debe quedar claro la función que tiene la tecnología en las empresas artesanales para que estás puedan sobrevivir a todos los cambios que se generan. De igual manera, la innovación social, así como la relación que pueda existir con los Institutos de Educación Superior (IES) juegan un papel importante pues a través de la innovación social los artesanos pueden generar conocimiento y cambiar el paradigma que tienen en cuanto al uso de las tecnologías; en lo que respecta a las IES son quienes en determinado momento pueden enseñar o crear tecnología, tal es el caso del Instituto Tecnológico de Mérida, pues realiza investigación y apoya a la Asociación de Artesanos de Madera Torneada de Dzityá A.C., en la búsqueda de soluciones a las problemáticas que enfrentan los artesa-nos de la comunidad.

1. Consideraciones Teóricas

1.1. Conocimiento tradicional

Los pueblos poseen conocimientos profundos llenos de las experiencias adquiridas de los antepasados y que se han transmitido de generación en generación. Estos saberes constituyen una parte indisoluble de su cultura, representan un valor estratégico para el desarrollo económico de los pueblos y contribuyen al desarrollo sostenible de las naciones (De la Cruz et al., 2005).

Adicionalmente los conocimientos, innovaciones y las prácticas tradicionales corresponden a los saberes con los que cuentan los pueblos indígenas los cuales se transmiten de generación en generación habitualmente de forma oral. Según De la Cruz et al., (2005), los saberes pueden ser tangibles e integrales a todos los conocimientos y practicas ancestrales por lo que constituyen la herencia intelectual colectiva de los pueblos indígenas. Sin embargo, muchos de esas sapiencias se van perdiendo con el paso del tiempo debido a que como dice el autor se transmiten oralmente, por lo tanto, no se lleva algún registro de ello.

En las palabras del autor los conocimientos tradicionales están relacionados con los siguientes saberes:

- Ciencias naturales (e.g. bióloga, botánica, zoología, taxonomía indígena).
- Lingüística, cantos, rituales, danzas y ritmos.

- Curaciones, medicina y farmacóloga.
- Artesanía, cerámica, tejidos y diseños.
- Manejo de la biodiversidad, desarrollo sostenible, cultivos asociados, agroforestería, manejo de ecosistemas, manejo forestal y manejo de cuencas hidrográficas.
- Conocimiento de uso actual, previo o potencial de especies de plantas y de animales, así como de suelos y minerales, conocido por un grupo cultural.
- Conocimiento de preparación, proceso y almacenamiento de especies útiles.
- Conocimientos sobre conservación de ecosistemas.
- Ceremonias y curaciones realizadas dentro y fuera de su ámbito cultural.
- Sistemas de derecho consuetudinario y valores morales.

Si bien los saberes tradicionales se relacionan con una serie de conocimientos que pueden definir como un cuerpo acumulativo de conocimientos, prácticas y creencias que van cambiando a través de procesos de adaptación y que se transmiten mediante formas culturales de una generación a otra (Burrola et al., 2012 y Luna-Morales, 2002).

Al igual que el conocimiento científico, el conocimiento tradicional es el resultado de un proceso acumulativo y enérgico de experiencias, prácticas y adaptación al cambio. Un aspecto que distingue al conocimiento científico del conocimiento tradicional es que el segundo es local, holístico y portador de una cosmovisión que integra aspectos físicos y espirituales (Reyes-García, 2009). Por tal motivo este tipo de conocimiento es importante para las comunidades indígenas porque son parte de su identidad cultural, además representa la herencia de nuestros antecesores y refleja la gran diversidad de la humanidad.

Por otro lado, las artesanías se entienden como expresiones por medio de las cuales se manifiestan, representan y modelan identidades relacionadas con la nacionalidad, se basan y remiten a tradiciones, las cuales forman parte de una identidad cultural que se encuentra vinculada a una sociedad y a un estado determinado, además son relacionadas con ideas y valores que se asocian a un pasado centrado en términos de historia regional y nacional. Es interesante señalar que los bienes artesanales tienen la condición de ser propios de su realidad, la coexistencia de pluralidad (Rotman, 2003).

El autor señala que las artesanías forman parte del legado cultural del cada país, desde sus concreciones materiales e imagen plástica hasta en los aspectos que realizan en sus procesos productivos (técnicas, etc.) y en sus implicaciones simbólicas, identitarias e ideológicas. Debido a ello se incluyen entre los símbolos que definen a una nación.

Frecuentemente la gente suele asocial a las artesanías con una forma de producción ancestral, antigua, preindustrial, subdesarrollada, rural, originaria de las sociedades pobres, sin embargo, para Malo (2008) necesariamente no es como se plantea. Además, con el transcurso del tiempo esto ha cambiado tal vez se den cambios lentos o parciales; pero existen. El autor menciona como ejemplo que, en la antigua fragua de los herreros, avivada manualmente con un fuelle hecho de piel ha sido desplazada por el venterol, un artefacto movido por energía eléctrica. La quema de los productos cerámicos se hace generalmente en hornos eléctricos. El tradicional torno de pie de los alfareros puede ser reemplazado por un torno movido por un motor eléctrico.

Con base en lo anterior el autor comenta que las artesanías requieren de arte-sanos que las trabajen con métodos diferentes a la industria y que, en la mayoría de los casos, obtienen de la producción de los bienes artesanales los medios económicos para poder solucionar los problemas que se les presente, por lo tanto, implica diversas formas de comercialización que requiere en ocasiones del uso de tecnologías.

Entonces, las artesanías sufren cambios tecnológicos para que puedan subsistir e innovar en sus procesos, así como en sus productos. Por lo tanto, es imprescindible que los artesanos se encuentren preparados para las nuevas tecnologías que surjan y que se puedan adaptar a su actividad económica.

1.2. Tecnología e innovación rural

La búsqueda de un desarrollo para los territorios capaz de hacer compatible la competitividad de

sus empresas con el mantenimiento de su población, así como mayores cuotas de bienestar, sustentabilidad ambiental y respeto por el patrimonio cultural heredado, esto constituye un reto para actores sociales y responsables públicos desde hace décadas. En ese contexto, identificar las estrategias que sean las más adecuadas para promover la dinámica de las regiones atrasadas, las ciudades pequeñas y las áreas rurales, junto con las actividades tradicionales y las pequeñas empresas (como los talleres artesanales), forma una línea de investigación de interés teórico y operativo que exige la colaboración de diferentes perspectivas profesionales (Méndez, 2006).

Por otra parte, Hernández et al., (2009) afirma que la sostenibilidad de lo artesanal supone el ingreso a dinámicas de mercado global de forma competitiva e innovadora por lo tanto exige de los artesanos patrones productivos que consideran los elementos clave: artefactos (artesanías), estos surgen de una memoria cultural, una tecnología la cual es representada en la acumulación de un cono-cimiento tradicional aplicado a un objeto y los recursos naturales que garanticen la duración de un capital natural, un factor importante para la permanencia de los productos artesanales tradicionales.

Actualmente aún podemos encontrar que hay personas que continúan viviendo como lo hacían sus antepasados, sin tener contacto con las máquinas y modificando muy poco su economía. Según Turok (1988, 22-194) en México aproximadamente sólo el 5% del total de los artesanos han innovado y tienen éxito en esa actividad; pero existe un 65% de ellos que emplea sistemas rudimentarios y sobrevive de ese oficio. El otro 30% está en el punto medio. Varios autores consideran a la artesanía como una actividad complementaria a la agricultura de temporal, (Jiménez, 1982, 46-53; Bonfil, 2001, 9-490; Cook, 1995, 38; Turok, 1988, 22-194). Es por ello que hacen referencia del campesino pues él además de cultivar elabora productos no agrícolas; su forma de producción se tipifica como una organización o unidad doméstica familiar, porque cada miembro aporta conocimientos, habilidades, capacidades y pretende conservar su producción tradicional, de generación en generación. Sin embargo, ese modo del trabajo implica una división a varios niveles, que varía en grado de especialización: por sexos, grupos de edad y por actividad económica. Es así, como algunos procesos de producción se hicieron exclusivamente masculinos, otros, exclusivamente femeninos; otros más, mixtos. Alguna división del trabajo llega a otorgar a personas Otros tienen un gran número de tareas o fases, o incorporan a sectores que generalmente no se consideran productivos, como el infantil y el de los ancianos. Este comportamiento del sector genera una tipificación propia de los factores de innovación.

Para señalar factores que intervienen en la producción artesanal se puede utilizar el trabajo de Jiménez (1982, 46-53) quien realizó un estudio en los altos de Chiapas, en el cual obtuvo como resultado que entre la población artesanal hay nueve familias que tienen ciertas prácticas que les han permitido posicionarse como líderes en el ramo, estás prácticas consisten en:

- Innovación con nuevos productos.
- Innovación introduciendo algunos elementos novedosos.
- Realizan pedidos al mayoreo a comerciantes de mercados lejanos.
- Innovación introduciendo diseños, moldes y modelos.
- Contratación de personal como fuerza de trabajo asalariada.
- Hay una construcción anexa a la casa-habitación, para producir o para vender.
- Hay un almacén para los productos.
- Venden directamente a casas y almacenes de productos artesanales en otras localidades.
- Realizan viajes a las ciudades para "checar" precios.
- Tienen amplia información sobre precios y las fluctuaciones de oferta y demanda de los productos.
- Innovación imitando técnicas y estrategias de producción y comercialización de otras localidades.
- Viajan a otras localidades en busca de mejores mercados para su artesanía.
- Producen para instituciones con programas y proyectos para el desarrollo de las artesanías como: FONART (Fondo Nacional para el Fomento de las Artesanías), FONAFE

(Fondo Nacional para el Fomento Ejidal).
- Tienen contacto con centros urbanos de mayor importancia que su localidad.

El autor como bien muestra en la lista de factores que intervienen en la producción de artesanías está involucrada la innovación en los productos artesanales, la búsqueda de nuevas formas de comercialización, así como posicionamiento de puntos estratégicos para la venta de los productos, por otro lado hace falta la contribución de la tecnología entre su planteamiento pues es un factor sumamente prescindible ya que, como sea mencionado anteriormente, los artesanos se encuentran inmersos en cambios tecnológicos que si no saben cómo adaptarse podría ocasionar que no se posicionen sus productos en el mercado.

1.3. Innovación social en economías rurales

Los conceptos de innovación social han cambiado y toman cada vez más relevancia entre un mundo de industrialización, tecnologías y producción, y otro de sostenibilidad y desarrollo de economías micro fortalecidas a través de la potencialidad de recursos locales con la intervención de comunidades y organizaciones que consoliden procesos de región.

Por lo tanto, la innovación social puede ser definida como "el desarrollo e implementación de nuevas ideas (productos, servicios y modelos) para satisfacer las necesidades sociales, crear nuevas relaciones sociales y ofrecer mejores resulta-dos. Sirve de respuesta a las demandas sociales que afectan al proceso de inter-acción social, dirigiéndose a mejorar el bienestar humano" (European Commsion s.f. pp. 4). Es una nueva forma de innovar. Se puede decir que esta nueva manera de crear innovación se centra en las relaciones sociales pues como lo dice en la definición satisface las necesidades sociales y para lograrlo es necesario entablar relaciones sociales con el fin de conocer los problemas de las personas más necesitadas para poder generar soluciones.

Por otro lado, este concepto ha despertado en los últimos años un interés, debido a que tiene que ver con las complejas problemáticas que enfrenta el mundo a nivel global en temas que hoy en día se han vuelto tan comunes como: la salud, educación, el medio ambiente, entre otros. Estos temas que interesa a la innovación social son temas globales, sin embargo no implica que las soluciones puedan ser iguales para todas las comunidades en la que se genere esta nueva forma de innovar, sin embargo, puede ser que mediante las ideas que surjan para la solución de problemas se puedan hacer combinaciones que puedan ser replicadas de un lugar a otro con adaptaciones a sus distintos entornos en aspectos cultura-les y económicos, donde los métodos tradicionales ya no generan soluciones y necesitan ser corregidos con eficiencia.

Una de las organizaciones más importante a nivel mundial es la Comisión Económica para América Latina y el Caribe (CEPAL), la cual viene trabajando desde el año 2004 en el tema de innovación social. Esta organización ha encontrado innumerables ejemplos sobre el tema, dado que los estados no le dan res-puesta a todas las necesidades de los individuos que los conforman CEPAL (2015). En el mismo contexto este organismo menciona que la innovación social se da como respuesta de la sociedad civil, las comunidades y al mismo gobierno ya que ya no se pueden resolver los problemas con los procesos o métodos tradicionales.

A través del tiempo se han dado cuenta que actualmente ya son más evidentes y acentuadas las problemáticas de las comunidades que suelen ser vulnerables por lo tanto es necesario otorgar respuestas efectivas y novedosas a sus necesidades, aunque en ocasiones parezcan básicas. Otra definición interesante sobre innovación social es la que hace la CEPAL (2015) pues define este término como aquella que se caracteriza por desarrollar nuevas maneras de administrar y ejecutar; lo cual involucra el uso de nuevas herramientas, medios y combinación de factores, encaminados a alcanzar una mejoría de las condiciones sociales y de vida en general de la población de la región.

Otros autores como Phills, Deiglmeier y Miller (2008), coinciden en que es una solución a un problema social que es más eficaz, eficiente y sostenible que las soluciones existentes cuyo valor creado se acumula en la sociedad en su conjunto y no en las

particularidades (citado en León, Baptista & Contreras, 2012). Es importante mencionar que la innovación solo se puede considerar social, si responde a mejorar el bienestar de la sociedad y que no fomente la riqueza de un grupo u organización específica, sin importar que este tipo de innovación se dé en nivel de productos o procesos, lo que debe ser trascendental es el cambio que pueda originar en la sociedad en la cual esté presente en las relaciones la innovación social (Camargo et al., 2017).

2. Metodología

Para la elaboración del presente artículo y poder adquirir información relevante sobre el tema se realizó una revisión documental, la cual es necesaria para comprender los temas mencionados en el trabajo. De manera que se pueda compren-der los temas no solo de manera teórica, sino que también práctica.

La presente investigación se enfocará en el sector artesanal de madera de Dzityá, Yucatán. Una comisaría localizada a 15 kilómetros al norte del centro de la ciudad de Mérida, capital del estado de Yucatán, cuenta con 1,260 habitantes (INEGI, 2010). Debido al crecimiento urbano que se ha generado en la periferia de la comunidad se le considera ya un suburbio de la ciudad capital del estado, además es conocida regionalmente por la elaboración de artesanías de tallado de madera torneada y por el labrado de piedra de cantera.

El estudio principalmente se realizó con los integrantes (seis artesanos) de la Asociación de artesanos de Madera Torneada de Dzityá A.C., ya que son un grupo establecido, además que los integrantes cuentan con talleres propios y forma-les, otro aspecto que fue relevante para la realización de la investigación es que el Instituto Tecnológico de Mérida lleva cuatro años trabajando con ellos y cuentan con un convenio firmado.

La información requerida para el trabajo fue realizada por medio de la Investigación Acción Participativa (IAP) ya que por medio de esta metodología se lograría la participación e inclusión de los artesanos en la búsqueda de soluciones a los problemas que tienen relacionados principalmente con la innovación y la tecnología, para ello se realizó un diagnóstico (Colmenares, 2012), el cual se realizó por medio de entrevistas individuales, además de la observación participante, esto se realizó debido a que entre los actores estudiados no hay colectividad a pesar de ser un grupo formado (Durston & Miranda , 2002).

Otro aspecto importante de esta metodología es que está dirigida a los problemas comunitarios, además que la (IAP) genera los medios para que las personas involucradas recuperen su capacidad de pensar por sí misma, de igual manera forja las capacidades necesarias para desarrollar innovación social en el entorno artesanal, además contribuye a la conservación de la cultura para la preservación de una vida autentica (Lewin et al., 1990).

Por último, con la IAP se logra construir las acciones que se deben tomar para la solución de los problemas, también contribuye en el análisis y reflexión del esta-do actual de los artesanos en cuanto a la innovación y tecnología con la que cuentan (Colmenares, 2012).

3. Resultados

En base a lo que menciona De la Cruz et al., (2005) los artesanos de la comunidad de Dzityá cuentan con los saberes adquiridos de sus antepasados, los cuales se han transmitido de generación en generación, es una característica importante pues los talleres artesanales son familiares. La técnica artesanal constituye una parte indisoluble de la cultura de esta localidad, además representa un valor estratégico que contribuye en el desarrollo económico y al desarrollo sostenible (De la Cruz et al., 2005).

En total se encontró que los seis artesanos estudiados de la comunidad de Dzityá, Yucatán, también realizan actividades similares a las que menciona Jiménez (1982). Ellos se organizan para comercializar sus productos artesanales por medio de un encuentro regional de artesanos, lo cual realizan cada mes, además que han buscado con ayuda del Instituto Tecnológico de Mérida apoyo de algunas dependencias gubernamentales como es el caso de Fomento Económico y Turístico del municipio de Mérida, Yucatán cuyo apoyo consiste en brindar el mobiliario necesario para poder llevar a cabo los eventos. Asimismo, se ha obtenido la colaboración de Fomento Cultural, cuyo aporte ha sido de proveer con eventos culturales para llamar la atención de la gente y de esta manera

atraerlas al poblado para consumir los productos que se elaboran en la comunidad. Así como esta actividad, también participan en ferias artesanales o de comercio organizados por organizaciones como la Cámara Nacional de Comercio (CANACO), la casa de artesanías, el H. Ayuntamiento del Municipio de Mérida, el CDI, entre otras. Otro aspecto, es que están en la búsqueda de proveedores que les ofrezcan madera certificada, esto para evitarse problemas con la CONAFOR, además que apoyan en la conservación de especies.

En cuanto a la tecnología, se obtuvo como resultado que los artesanos utilizan las redes sociales para la venta de sus productos, así como para difundir el evento artesanal que realizan periódicamente. Solamente un artesano cuenta con una página WEB la cual utiliza para darse a conocer nacional e internacionalmente, así como para buscar alguna capacitación que le sea de utilidad para desarrollar mayores habilidades que contribuyan en hacer crecer su taller artesanal. Cabe mencionar que es una mujer la dueña de la pequeña empresa que cuenta con el sitio WEB, además que los productos que vende son realmente innovadores pues hace accesorios de madera (collares, pulseras, aretes, etc.), es la única mujer que pertenece a la Asociación y la única en la comunidad que realiza este tipo de trabajo. Otro aspecto relacionado la tecnología es la maquinaria que utilizan los artesanos para la elaboración de sus productos, como ha mencionado Malo (2008) con el transcurso del tiempo esto ha cambiado, pues ahora las maquinas son más modernas, en el caso de esta técnica los antepasados utilizaban tornos de madera bastante rústicos. En la actualidad los tornos son eléctricos, modernos y los artesanos pueden adaptarlos a sus necesidades con la ayuda de un soldador de la comunidad, también acuden con el soldador para construir maquinas que se adapten a sus necesidades, como es el caso de un artesano que adapto una sierra eléctrica a una base con la finalidad de facilitar el corte de la madera, ya que en ocasiones compran troncos grandes y es complicado cortarlos.

También se obtuvo que algunas instituciones educativas contribuyen para que los artesanos tengan tecnología que les optimice el proceso de producción, como es el caso de la escuela "Modelo" de Mérida que crearon una estufa para el seca-do de la madera que funciona con un panel solar, sin embargo, el proceso sigue siendo tardado. Otra institución educativa que contribuye con los productores artesanales es el Instituto Tecnológico de Mérida, pues en algún momento realizó una capacitación de computación para los artesanos ya que ellos no sabían cómo se utiliza una computadora, sin embargo, no fue suficiente por lo que aún requieren de este tipo de actividad, así como se les dio esta capacitación se realizó con ellos una serie de cursos relacionados con la administración, costos y de seguridad e higiene. Se obtuvo la colaboración con la Universidad HEC de Montreal, Canadá en la elaboración de la página de Internet y redes sociales de la Asociación de Artesanos de Madera Torneada de Dzityá A.C. con esto han lo-grado demostrar actualización en sus acciones, a pesar de contar con esta herramienta, los artesanos desconocen cómo utilizar la página WEB, por lo tanto, aun les hace falta trabajar en este aspecto para que puedan aprovechar esta oportunidad de innovación y tecnología con la que cuentan. Por lo tanto, se puede encontrar que intervienen diferentes actores en el desarrollo de las empresas artesanales (Méndez, 2006).

A pesar de las complicaciones que puedan tener los participantes aún está presente en ellos el interés de hacer acciones innovadoras que les ayude mejorar sus procesos de producción así como la comercialización de sus bienes artesanales, y saben que para ellos es necesario adaptarse a las tecnologías que surjan a través del tiempo, es por ello que ya están tomando las medidas necesarias para lograrlo, pues tres de los que no cuentan con el sitio WEB, ya están haciendo lo necesario para poder crearlo y de esta manera obtener mayores posibilidades de comercialización, además que involucran a su familia, ya que las personas que se encargaran de alimentar la herramienta serán los hijos que cuentan con estudios universitarios.

Por último, la innovación social ha estado presente entre la comunidad artesanal pues se han identificado acciones que la generan como es la generación de nuevas ideas de comercialización, de organización en la realización de los eventos culturales, así como en los propios talleres familiares ya que desde siempre buscan el bienestar de los integrantes de la familia, por otro lado, se encuentra la

Asociación que busca el bienestar de la comunidad artesanal (European Commision s.f. pp. 4). Otro aspecto, que contribuye en la innovación social es la relación que se ha entablado con las IES y las organizaciones gubernamentales pues entre este triangulo (artesanos, IES y gobierno) se puede generar innovar en las relaciones sociales con la finalidad de generar soluciones.

4. Discusión y reflexiones finales

Como bien se ha mencionado es importante continuar construyendo vínculos con las IES pues fomenta la innovación, contribuyen a la solución de problemas de los artesanos de madera, favorecen el aprendizaje entre los actores, además ayudan en la búsqueda de mejoras de los procesos con los que cuenta la población estudiada.

Por otro lado, se encuentra el conocimiento científico y el conocimiento tradicional que son producto de un proceso acumulativo y dinámico de experiencias prácticas y adaptación al cambio. Una diferencia que existe entre dichos conocimientos es que el tradicional es local, holístico y portador de una cosmovisión que vincula aspectos físicos y espirituales. Sin embargo, la comunidad artesanal trata de vincular estos de manera que sean utilizados en la solución de sus problemas pues ambos conocimientos son importantes para la existencia de la técnica artesanal.

Por lo anterior, se requiere de estrategias para generar tecnología que sea de utilidad a los artesanos, que conserve la esencia cultural con la que cuenta este tipo de producción, así mismo de generar cohesión entre la comunidad artesanal para que de esta manera los proyectos que surjan se realicen mediante la colaboración de los actores involucrados y se logre una verdadera colectividad en la Asociación.

Por último, es importante que las Instituciones de Educación Superior (IES) generen tecnología propia para los artesanos, que los involucren en los procesos, con la finalidad de generar conocimiento entre los actores, así como una transferencia del mismo que pueda ser utilizado por todos los involucrados.

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PREMISAS SOCIALES DEL PERSONAL Y LAS PRÁCTICAS ORGANIZACIONALES. CREENCIAS DEL PERSONAL Y LA CULTURA ORGANIZACIONAL

SOCIAL PREMISES OF STAFF AND ORGANISATIONAL PRACTICES

Gilberto Manuel Córdova Cárdenas*, Eneida Ochoa Ávila

Instituto Tecnológico de Sonora, Sonora, México,
*Corresponding author: gilbertocordovacardenas@gmail.com

Abstract: The present study was designed to measure the impact generated by social premises in organizational practices, identifying factors related to social and organizational norms. Two instruments for data collection were applied to employees of a manufactory company. Results show relationships between their factors and socio-demographic data, for example, people with higher study levels showed less avoidance to uncertainty, which include performing their work with greater relaxation, workers that perform social premises adapt to organizational practices.

Key words: Social Premises, Organizational Practices, Human Resources.

Resumen: La presente investigación se destinó a medir el impacto que generan las premisas sociales en las prácticas organizacionales, identificando factores que relacionan las normas sociales y de organización. Se aplicaron a empleados de maquiladora dos instrumentos para la recolección de datos. En los resultados, se encontraron relaciones en sus factores y los datos socio-demográficos, por ejemplo, los empleados con mayor grao de estudios presentan un menor grado de evitación a la incertidumbre, que destacan el realizar su trabajo con mayor relajación, los trabajadores al ejercer las premisas sociales se adaptan a las prácticas organizacionales.

Palabras clave: Premisas sociales, Practicas organizacionales, Recursos humanos.

Introducción

Las organizaciones son una realidad cultural y están expuestas a estar en constante cambio tanto en lo social, como en lo económico y tecnológico o de lo contrario tienden también a la opción de encerrarse dentro de sus límites y oponerse a cualquier cambio sugerido. Tienen como finalidad objetivos de supervivencia y es necesario que se enfrenten a problemas para poder desarrollarse y crecer.

En cualquiera de los casos cada organización refleja sus creencias, valores e ideas, así como sus normas y su propia historia. Todo esto está relacionado, o bien, forma parte de la cultura. La cultura organizacional es el conjunto de valores y normas compartidos que controla las interacciones entre los integrantes de la organización y con los proveedores, clientes y otras personas externas a la misma (Navarrete, 2013).

La cultura de la organización está formada por las personas que integran la organización, por la ética de la misma, por los derechos laborales que se otorgan a los empleados y por el tipo de estructura que utiliza (Jones, 2008).

La cultura organizacional se puede concebir como un conjunto constante de opiniones, significados compartidos y valores que constituyen una especie de contexto para la acción, un sistema que congrega los factores expresivos y afectivos de la empresa en un sistema colectivo de significados simbólicos (Smircich, 1983; Allaire y Firsirotu, 1992), o

como una representación de referencia para modelos de información, comportamiento y actitudes que se comparten con otros en la organización (Zapata, 2007) (citado en Higuita & Grisales, 2014).

El estudio de la cultura de las organizaciones comenzó a tomar relevancia a partir del trabajo de Peters y Waterman (1982), quienes relacionaron la excelencia organizacional con una cultura fuerte caracterizada por una visión compartida. Esta idea de visión compartida también es subrayada por Schein (1992). Cooke y Rousseau (1988) dicen que la cultura… refleja los modos de pensar y creer que los miembros tienen en común… (p. 255). Lewis, French y Steane (1997) afirman que "la cultura en sí misma es un factor que contribuye a que una organización difiera de otra.

La cultura es la esencia de una organización, su carácter, su personalidad y, por consiguiente, es muy difícil de cambiar" (p. 279) (Sánchez, Lanero, Yurrebaso, & Tejero, 2007).

Robbins (1996) plantea que: "La cultura organizacional se refiere a un sistema de significados compartidos entre los miembros de una organización y que distingue a una de las otras" (Rivas & Samra, 2006). Las reglas/normas culturales generan procesos sociales y regeneran globalmente la complejidad social adquirida por esta misma cultura" (Gómez, 2008).

Es esencial que la empresa tenga bien definida su cultura y aplique correctamente las estrategias, así como el manejo de su información para que se demuestre la colaboración entre diferentes sectores que conforman la organización (Cantillo & Daza Escorcia, 2011).

En otra investigación se determinó que a partir de la percepción de los gerentes, algunos componentes de la cultura organizacional tales como el liderazgo, la cooperación, el reconocimiento, la satisfacción del trabajador, la comunicación, la capacitación brindada a los empleados, la creatividad, el mejoramiento continuo, la calidad del servicio y el servicio al cliente favorecen el proceso de implantación de un sistema de gestión de calidad en las empresas, como un objetivo que se debe cumplir a corto o mediano plazo (Salcedo & Romero, 2006).

Como bien es sabido, parte fundamental para formar una organización son las personas ya que estas son las encargadas de realizar labores para que este grupo logre algún fin o meta específica propuesta a corto, mediano o largo plazo. Generalmente las organizaciones ofrecen bienes o servicios los cuales están diseñados para llegar a la satisfacción de las personas lo cual crea una interacción entre el empleado y el cliente.

Por lo tanto, debido a la globalización que impera en las empresas, es necesario que las mismas se desarrollen, sean competitivas y se transformen de tal forma, que se distingan de las demás. En la actualidad, en conjunto con el avance tecnológico y el crecimiento económico, los componentes organizacionales son factores importantes en el incremento de la productividad y el cambio organizacional. El concepto en cuestión, es relevante junto con los avances tecnológicos para mejorar y elevar el capital tanto humano como monetario (Arciniega, 2011).

Así mismo, cada organización se rige por sus creencias, sus valores, sus tradiciones lo cual forma su cultura y es con base en esto que debe regirse también el personal de la empresa. Por lo tanto, es de suma importancia para una organización saber si ¿La cultura regional tiene un impacto en la cultura organizacional?

El presente trabajo proporcionará a las empresas saber cómo se encuentran sus empleados en cuanto a la cultura organizacional ya que como se ha mencionado anteriormente es pieza clave para la supervivencia de una organización, saber cómo responden sus empleados ante ciertas circunstancias, que tan comprometidos están con la empresa, de qué manera realizará su trabajo y atenderá al cliente que va en busca de los servicios de la empresa. Además de identificar las características, hábitos, costumbres y mitos presentes en la cultura regional que impera en los trabajadores de la misma organización. Siendo el objetivo elaborar dos escalas para medir y determinar la cultura regional y su impacto en la cultura organizacional de empresas maquiladoras de la región del mayo.

1. Hipótesis

HI: Si los trabajadores presentan un alto nivel de premisas culturales, entonces presentaran un alto nivel de prácticas organizacionales.

H0: Si los trabajadores presentan un alto nivel de premisas culturales, entonces presentaran un bajo nivel de prácticas organizacionales.

2. Metodología

Se recolectaron datos en empresas maquiladoras del sur de Sonora. La muestra quedó integrada por 100 empleados, de los cuales fueron 60 varones y 40 mujeres, con una edad promedio de 54 años y con promedio de antigüedad laboral de 17 años. La mayoría de los sujetos tienen formación básica a técnica y la población ocupaba puestos de supervisor, técnico, almacén, oficinista, recibo, entre otros.

La aplicación del instrumento, se realizó en las empresas considerando las dos escalas juntas, para Medir premisas sociales y la de Prácticas Organizacionales (Castro, López y Córdova, 2015).

2.1. Materiales

Se aplicaron dos escalas, una que midió las premisas sociales y otra sobre prácticas organizacionales. Ambas se examinaron por medio de un análisis factorial del que se obtuvieron 4 factores en c/u que se denominaron para la primera:

1. Paternalismo: en esta dimensión se habla de que la mayoría de los trabajadores ayudan a los que le rodean, buscan la aprobación de los demás, que se respetan los derechos del empleado, tiene buenas retribuciones y se identifican claramente los valores organizacionales.
2. Fatalismo: consideran que viven en un ambiente con desigualdad, se toman decisiones sin considerar a los demás, no se expresa lo que se siente, se anticipan a las acciones y se considera que deben tener metas y objetivos personales.
3. Evitación de la Incertidumbre: hay confianza en exceso, se considera que siempre habrá alguien que solucione los problemas, que las cosas van a resultar tal como se plasmaron, aunque no se haga nada, alguien más tiene la culpa y prefieren no enfrentar las responsabilidades.
4. Individualismo: prefieren hacer las cosas por si solos, suelen ser desconfiados y creen que no existe igualdad, ni respeto debido a las diferentes clases sociales.

1) Empleados vs Tareas: este factor se refiere a las metas que emplean los jefes o superiores, si son objetivos alcanzables, identifican las necesidades de la organización, si los gerentes se preocupan por los problemas de sus trabajadores, la empresa fomenta la innovación y si, se identifica el impacto que puedan tener en la empresa.

2) Sistemas Flexibles vs Rígidos: describe si la empresa proporciona lo necesario para llevar a cabo el trabajo, si es flexible para apoyar al trabajador con nuevas ideas y se adapta a los cambios del mercado y la sociedad.

3) Procesos vs Resultados: dicha dimensión habla de si se comparan los resultados planteados con lo que se obtiene constantemente, si hay mecanismos claros para medir los resultados, si las tareas son desempeñadas de acuerdo a un estándar y si se toma en cuenta al personal como una ventaja competitiva.

4) Sistemas Abiertos vs Cerrados: explica como el trabajador se adapta al cambio, que se toman en cuenta los comentarios del trabajador, cada empleado sabe qué hacer, se buscan soluciones a los problemas de personal, permea un buen clima organizacional y se buscan mejores formas de trabajo.

2.2. Procedimiento

La recolección de datos se efectuó dentro de las organizaciones que dieron su aval para participar en la investigación y los empleados que estuvieron de acuerdo en la misma. Los datos fueron reunidos en los lugares y horarios habituales de trabajo de manera colectiva y/o individual, según los casos. Los participantes recibieron instrucciones sobre la mecánica de respuesta de las escalas y fueron estimulados a ofrecer respuestas sinceras y a no dejar ninguna en blanco. Las eventuales dudas surgidas fueron aclaradas individualmente durante la recolección de los datos.

3. Resultados y conclusiones

3.1 Análisis estadístico de las escalas

Con respecto a las propiedades psicométricas de la "Escala para Medir las Premisas Sociales" y la "Escala sobre Prácticas Organizacionales", la validez concurrente fue obtenida por grupos contrastados a través de la prueba Ji² con valores p asociados menores a 0.05; dos reactivos de la primera escala y tres de la segunda no cumplieron con el requisito de la distribución de frecuencias "encontradas", es decir, las frecuencias más altas y bajas estuvieron en los extremos (el extremo superior para el grupo alto y el extremo inferior para el grupo bajo).

Además, con una prueba t se identificó que de los 28 reactivos restantes de la primera y los 20 reactivos de la segunda escala con valores p asociados menores a 0.05 discriminan a aquellos sujetos que obtienen nivel bajo de los que obtienen nivel alto.

Siguiendo la lógica del análisis factorial para establecer la validez de constructo se obtuvieron varianzas acumuladas de 67.84 y 68.72 respectivamente y se identificaron 4 dimensiones para cada escala, las cuales se describen a continuación: Paternalismo; Fatalismo; Evitación de la Incertidumbre e Individualismo para la Escala de Premisas Sociales y los factores de la Escala de Prácticas Organizacionales fueron: Empleados vs Tareas; Sistemas Flexibles vs Rígidos; Procesos vs Resultados y Sistemas Abiertos vs Cerrados.

Ya definido esto, se identificó la confiabilidad de las escalas a través de la consistencia interna; las cuales mostraron una r = .810 y .824 correspondientemente medidas por el coeficiente alfa de Cronbach.

3.2. Análisis Inferencial de los datos

En tanto al análisis realizado para verificar diferencias significativas con Ji² de las dimensiones por medio de tablas de contingencia con los datos socio-demográficos, efectuado mediante la comparación de datos se consideraron los que obtuvieron un nivel de significancia menor a 0.05.

Los resultados obtenidos muestran una relación media baja, lo cual explica que si hay un alto nivel de prácticas organizacionales, es porque existe un alto nivel de premisas sociales o viceversa, o bien, si influye una con la otra en menor medida, sin embargo afecta (ver Tabla No. 1).

Tabla 1. Correlación entre las dos escalas.

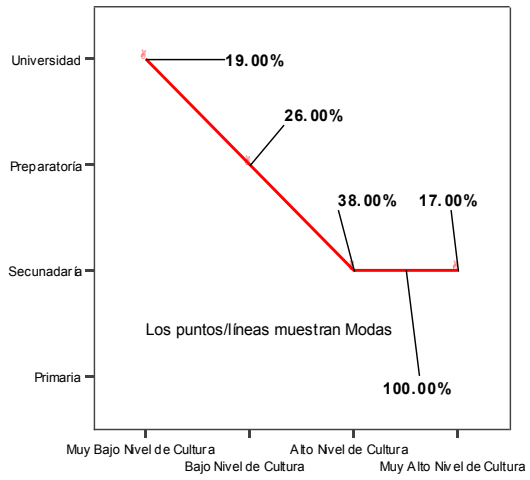
		Escala 1	Escala 2
Escala sobre Cultura Social (1)	Correlación de Pearson	1	**.386(**)**
	Sig. (bilateral)		.000
Escala de Prácticas Organizacionales (2)	Correlación de Pearson	**.386(**)**	1
	Sig. (bilateral)	.000	

**** La correlación es significativa al nivel 0,01 (bilateral).**

Fuente: elaboración propia

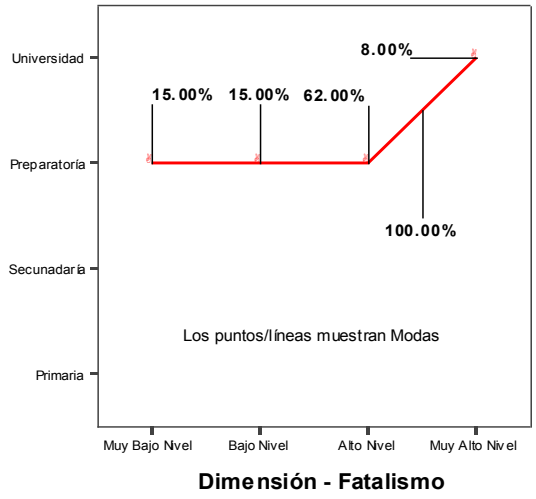
También se encontraron relaciones en sus factores, como que a mayor grado de estudios de los trabajadores, existe un menor grado de evitación a la incertidumbre, así como también un mayor grado en el factor fatalismo y en el factor de paternalismo (ver figuras No. 1, 2 y 3).

Figura 1. Factor Evitación de la Incertidumbre y escolaridad



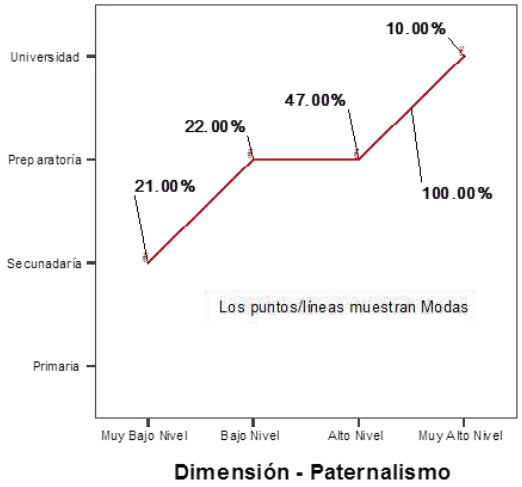
Fuente: elaboración propia

Figura 2. Factor Fatalismo y escolaridad



Fuente: elaboración propia

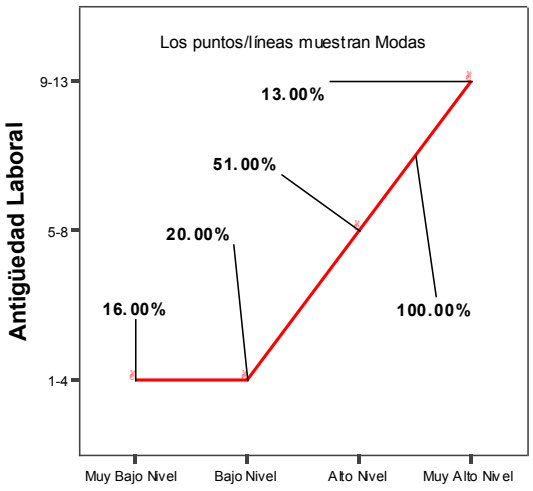
Figura 3. Factor Paternalismo y escolaridad



Fuente: elaboración propia

También se muestra en la figura No. 5 que los empleados con mayor antigüedad laboral, mayor es el nivel en la dimensión de empleados vs tareas.

Figura 4. Factor Empleados Tareas y antigüedad laboral



Fuente: elaboración propia

Así como también hay información estadísticamente significativa al momento de cruzar los datos del Factor Sistemas Flexibles, Empleados vs Tareas con el Factor que se refiere al paternalismo en la organización y se encontró que las primeras dos dimensiones coinciden en sus niveles altos con la tercera.

Primero es importante recalcar que las escalas utilizadas mostraron ser válidas y confiables en esta aplicación. Así mismo de acuerdo al análisis de los resultados se puede decir que los trabajadores que presentan un alto nivel de cultura social, se ven impactados en la cultura organizacional de la empresa, además dentro de las dimensiones mencionadas al obtener altos niveles en estas quiere decir que son aplicadas por la mayoría de los empleados en las organizaciones.

En cuanto a la dimensión empleados vs tareas se muestra que el paternalismo es alto, lo cual índica que los empleados presentan actitudes que manifiestan la importancia del bienestar de cada individuo en la organización, antes que los resultados positivos del trabajo dentro de la empresa, expresando también un nivel alto en el individualismo de cada empleado.

En el factor sistemas flexibles vs rígidos de la empresa, se obtuvieron altos niveles de paternalismo, ya que posiblemente algunos prefieren ocuparse de las necesidades de ellos mismos, pero siempre expresándose con autoridad, y se mantienen bajos en fatalismo, esto porque es probable que ellos consideren que nadie resolverá sus problemas. Así como también mostrando que cuando hay un alto nivel en la dimensión sistemas flexibles vs rígidos, hay un alto nivel de individualismo, que podría ser debido a que los empleados prefieren resolver u ocuparse de las actividades laborales por ellos mismos.

Los resultados obtenidos en las escalas aplicadas indican que determinadas prácticas organizacionales por parte de las empresas maquiladoras están estrechamente vinculadas con las dimensiones sociales de paternalismo, fatalismo, individualismo y evitación a la incertidumbre que son características opuestas a lo planteado por Ouchi (1982) que la cultura de una empresa la constituyen la tradición, las condiciones y los valores que dan lineamientos para un patrón de actividades, opiniones y acciones, y afirma que, la denominada por él, organización Z tendría unas características culturales muy específicas: confianza, amistad, trabajo en equipo y administración por participación directa. Calderón, Murillo, & Torres, (2003) concluyen también que "las condiciones de trabajo humanizadas no sólo aumentan la productividad y las utilidades de la compañía, sino también la autoestima de los empleados los cuales expresan un mayor bienestar emocional y también se sienten menos enajenados".

Todas estas modificaciones han generado lo que llama Spokoiny (1997) "la cultura de cambios rápidos" (citado en Vallenilla Solórzano, 2006). En este sentido la empresa se caracteriza por la implementación de prácticas orientadas al empleado, ya que se muestra que, en la mayoría de las dimensiones de la escala que explica las prácticas organizacionales están altamente relacionadas con la cultura social, en este caso específicamente con la dimensión de paternalismo e individualismo.

Omar y Orteaga (2010) realizaron la investigación que se tomó como base para este estudio, y se nota gran diferencia en cuanto a las distintas culturas de los países, es decir que, como ya se ha mencionado con anterioridad, en el artículo los resultados que impactan son, la implementación de prácticas orientadas al mercado, a los resultados y a los sistemas abiertos (Argentina), mientras que en esta investigación (México) los resultados muestran, menor grado de evitación a la incertidumbre, mayor nivel en la dimensión de empleados vs tareas y alto nivel en la dimensión sistemas flexibles vs rígidos; esto demuestra las diferentes culturas que tiene cada país y sobre todo que existe un gran impacto en las prácticas (cultura) organizacional.

4. Recomendaciones

Es importante darle seguimiento a la variable de prácticas organizacionales (cultura), ya que es un elemento que impacta en distintos factores dentro de las organizaciones y el realizar distintos estudios llevara a desarrollar diversas estrategias que pueden mejorar las características que prevalecen en la sociedad y que a la vez se trasladan a las empresas convirtiéndose en prácticas organizacionales.

Se puede investigar la misma variable con otros factores de la organización tales como satisfacción, clima, salud, desempeño, entre otros que pueden llevar a un mejor conocimiento de los cambios de comportamiento en una empresa y a la vez mejorar en aspectos de importancia para el país y los directivos como el rendimiento, las utilidades y el desarrollo sustentable.

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