

Article

Learning Processes in the Early Development of Sustainable Niches: The Case of Sustainable Fashion Entrepreneurs in Mexico

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Abstract: There are still several gaps to bridge in learning and sustainability transition research, one of which is the empirical exploration of learning processes and outcomes involved in the formation and development of sustainability niches. The purpose of this study is to investigate the formation and development of a sustainability niche through the lenses of individual and social transformative learning, specifically the learning processes and outcomes. We conducted a qualitative exploratory multi-case study of six different projects participating in the sustainable fashion and textiles niche in Mexico. We used documentation and individual interviews ($n = 7$) to collect evidence of the learning process in the formation and development of this niche. We used transformative learning theory to guide the analysis of the learning phenomena occurring in the development of this niche, distinguishing three main phases where individual learning takes place in the first two and social learning in the third. Analytical elements such as prior learning, disorienting dilemmas, action engagement and network building figure prominently in the learning process and outcomes in the development of the sustainable fashion niche in Mexico. This work provides a better and more detailed understanding of the multi-level perspective model through exploring sub-levels within the niche level, by shedding light on the importance of individual and social learning in the development of sustainable niches.

Keywords: sustainable niche; transformative learning; sustainable fashion; transition; entrepreneurial learning

1. Introduction

Learning is argued to contribute to the transformation of dominant regimes by shaping the transition process towards sustainable regimes [1]. Transition studies consider learning as a necessary condition for the development of new technologies [2–4], for the articulation of expectations and visions around an innovation [5,6], the emergence of niches [7,8] and the maintenance of governance processes related to transitions [9,10]. Recent efforts have attempted to bring more conceptual clarity regarding the role of learning in sustainability transition studies. For instance, van Poeck et al. [11] proposed an analytical framework for learning determining relevant factors that influence learning in transition-related settings. Van Mierlo and Beers [12] conceptualised learning in transition studies as two processes, namely discursive interaction and reflective action. Goyal and Howlett [13] conducted a review where they depicted learning pathways that allow for the visualising of an actor-network participating in transitions processes.

While all these studies provide interesting insights about learning in sustainability transitions, little is known about the role and importance of learning in specific dimensions of transitions research. One of these dimensions refers to the role of individuals who develop innovation niches through experimentation, with an emphasis on learning at individual and group level [14,15]. However, despite some theoretical and conceptual elaborations of learning in strategic niche management [3,16], the role of learning in the formation and development of sustainability niches is largely unexplored.

The purpose of this study is to explore the formation and development of a sustainability niche through the lenses of individual and social transformative learning. We investigate this through an exploratory qualitative case study of projects in the sustainable fashion and textiles niche in Mexico. We choose the case of the textile-fashion industry because its transition towards sustainability plays a significant role in achieving most of the United Nations' Sustainable Development Goals (SDG's) [17,18]. We take transformative learning theory [19,20] to guide the analysis of the learning processes, outcomes and conditions that led entrepreneurs to perform in the formation and development of a niche. Transformative learning contains analytical elements such as prior learning, disorienting dilemmas [21], discourse and action engagement [22] that allow us to investigate the evolution of entrepreneurs' individual learning to social learning during the venturing process in a sustainability niche.

This article sheds light on the importance of individual and social learning in the development of sustainable niches. It contributes to a better and more detailed understanding of a multi-level perspective model by exploring sub-levels within the niche level.

2. Theoretical Background

2.1. Niches and Sustainable Entrepreneurship

In transition theory, a niche is understood as a domain of application of emergent technologies or innovations [2] responding to existing structural problems of unsustainable regimes and landscape conditions [23–25]. Niches are not pre-defined spaces; rather, they are created and developed by innovators and entrepreneurs [14] who are dedicated to working and experimenting on innovations to develop new markets within a protected space. Niches are also spaces for entrepreneurs and innovators to learn and to build networks [16], allowing for a broader diffusion and spreading of innovations and, therefore, supporting the development of the niche [14].

The concepts of niches and entrepreneurship are inherently interrelated. Entrepreneurship is the process of identifying opportunities to create or extract value in a particular domain and in the further design and launch of products or services [26,27]. Consequently, niches serve as domains where entrepreneurs identify, experiment, develop and mature a particular innovation [4,25]. In sustainable entrepreneurship niches, entrepreneurs seek to attain success in the market as well as social and environmental benefits by providing (radical) sustainable innovative products or services [28]. By entering and positioning in the market, sustainable entrepreneurs gain the influence in social, economic and political spheres needed to drive sustainability transitions businesses [29].

2.2. Learning in Niches

Learning in niches occurs when entrepreneurs experiment with small-scale innovations in interactive and social settings [3,30]. Such learning takes places via learning by doing, trying, using, testing and experimenting as well as interacting with others [2,3,5,6,14,16,31]. Support for the learning process, social interaction and reflection, needs to be facilitated, by making room for experimentation [2] and providing a platform for sharing and reflecting upon experiences [3]. Additional conditions to support the learning process are: ensuring a diversity of different forms of expertise [2,6,14]; being aware of power relations [2], the role of infrastructure, complementary technologies and general landscape [6]; and establishing support through network building [5].

Learning in niches also entails social learning between innovators and users. Demands and expectations are negotiated to establish, develop and improve socio-technical practices around an

innovation [6,14]. The learning process aims at the development, maturation, application and diffusion of such innovations. It also guides transition trajectories avoiding undesired results. For this to happen, it is necessary to gain knowledge about the desirability, feasibility and viability of an innovation [2,3], considering different dimensions (e.g., technical, organisational, institutional and policy) at different levels (from niche to landscape) [5,6,16].

2.3. The Potential of Transformative Learning in Understanding Niche Formation and Development

Transformative learning theory focuses on the changes in adults' frames of reference—meaning structures that influence expectations, habits, feelings and thoughts—and how these changes lead to the emancipation of adults and, therefore, contribute to a better social future [32]. The transformative learning process consists of a series of intertwined steps [33]. Through experiencing and acting in the real world, frames of references are challenged in what is called disorienting dilemmas [21]. This is followed by process of critical (self-) reflection, where the learner examines his or her actions, interactions and premises of thought [34,35]. Self-reflection not only takes place individually, but it may also occur in social settings where different meanings and visions are shared, challenged and revisited. In such a process of discourse, the learner starts to understand the perspectives of others and to make sense of them [36]. For transformative learning to happen, an active engagement with the new revised meaning structures is necessary, by negotiating or exploring new relationships or roles, planning a course of action, testing solutions, and integrating these solutions into daily routines [37,38].

Transformative learning theory, which has been applied in various areas, including sustainability science [22,39], has been indirectly referred to in transition studies. Hoogma et al. [5], for instance, point out that an examination of frames of reference (i.e., meaning structures), together with a deconstruction of previous assumptions, expectations, ideas and habits is instrumental in strategic niche management. Schot and Geels [14], as well as Smith [16], highlight the role of expectations regarding an innovation during the formation and development of the niche. These expectations, which are embedded in frames of reference or are part of entrepreneurs' prior learning, are the starting point for entrepreneurs' engagement and guide the experimentation process and development trajectory of an innovation. Problems and negative developments that influence expectations and cause a disorienting dilemma can either hinder or facilitate experimentation [5,31]. Finally, as innovators and users reflect upon needs and consumption patterns through the experimentation phase, the expectations of actors, their visions and beliefs regarding the development and introduction of an innovation are made explicit, shared and articulated in a social reflective process [6].

2.4. The Global Niche of Sustainable Fashion

According to [31], a global niche is a worldwide community working on emergent topics by developing knowledge, practices, technology and policies in a specific area. Global niches emerge as a response to unsustainable socio-technical regimes, and they open up spaces for local niches and practices. Within the major economic activities all over the world, the current textile-clothing regime driven by a fast-fashion production-consumption model is one of the biggest and most complex industries in the world because of its diversity in products, role in the global supply chain and continuous innovation [40]. The textile supply chain comprises the design of the garment, the production of fibres, the supply of materials (yarns, fabrics, dyes, etc.), the manufacture of the garments, retailing, consumption and disposal.

The global sustainable fashion niche arose due to the increasing awareness of the negative socio-environmental impacts of this textile-fashion regime, such as labour exploitation, unsafe working conditions, textile waste pollution of water bodies and other ecosystems and pollution-related human diseases [41–43]. The global niche of sustainable fashion consists of a multi-actor network that is continuously interacting. This network is constituted by actors who are not only start-up clothing brands but also organisations, foundations, scientific researchers and consultants. They together aim for more transparency and traceability in the textile processes, respect for human rights, improvements

in working conditions, optimisation of energy and water use, reduced use of hazardous chemicals, use of low footprint fibres and closed-loop processes to avoid unnecessary production [44]. All of these actors can be categorised broadly in three groups: (1) technology and fibres (technology innovators), (2) business models and customer relations (fashion as a service business) and (3) value chain models and partnerships (ethical and sustainable brands) [45].

3. Methods

The research design of this study followed an exploratory multiple-case study approach. As a research strategy, case studies focus on a “bounded system” and the in-depth study of its context, driven by the desire to understand complex social phenomena [46,47]. Exploratory research aims at a robust understanding of a given phenomenon by providing additional perspectives and angles for its analysis [48].

We took entrepreneurs venturing with start-ups in the field of sustainable fashion as our study population. To capture the diversity of actors and projects that constitute the sustainable fashion niche in Mexico, a literature review and a web search identified potential case studies. The selection of the case studies followed five criteria outlined as follows. Case studies have been included if they:

1. Consist of small to medium size projects that are independent and locally oriented;
2. Generate for-profit services or products;
3. Have social and environmental goals;
4. Operate on a budget;
5. Are active at the time of data collection;
6. Can be contacted either electronically or in-person;

Criteria 1 to 4 emphasises the importance of considering only small entrants and rather new firms, with a small market share and who give the same importance to both sustainability and economic objectives in comparison to large incumbent firms, which are well-established, large and whose sustainability objectives are only complementary [49,50]. The last two criteria correspond to the practicality of the data collection.

We used a purposeful sampling approach through snowball sampling technique [51,52]. Purposeful sampling is the selection of participants who hold the most significant potential in providing relevant information regarding the phenomenon of study. This selection is based on specific inclusion criteria derived from insights about the particular area of research and corresponding literature [53]. Snowball sampling is a procedure to access informants through the contact information provided by other already approached informants, which is particularly useful in unexplored populations or social networks [54]. We employed such an approach and technique because, in the field of sustainable fashion and textiles in Mexico, there are neither reports nor studies that show who are the actors, projects or institutions involved in this transition of the sector towards sustainability. Thus, there is no account of how many entities of this kind exist.

Taking a Mexican business platform for sustainable fashion as the pivoting case, we identified 15 potential cases and created a sample universe of six cases to be included in the study. Given the exploratory nature of this research, we aimed for maximal contrasting rather than representativeness [55].

The study focuses on the phenomenon of a sustainability niche formation and development and related learning processes. The general research question is the following: What are the learning processes and outcomes during the formation and development of a sustainability niche? To answer this question, this research looks into (1) the different phases involved in the formation and development of the niche, (2) the prior learning experiences of the entrepreneurs who engage with a project in the niche, (3) the barriers and drivers these entrepreneurs encounter and (4) the individual and social learning outcomes resulting from these processes.

Data collection took place between March and June 2019 in Mexico City through semi-structured interviews. The interview guide was constructed around five main themes: individual learning trajectories prior to the venture in the niche; personal perception/knowledge about sustainability in the textile sector; the learning outcomes resulting from the venturing process; drivers and barriers in operation and potential growth of the niche; and network collaboration between niches and other actors and groups (see Appendices A and B). The interviews were conducted in Spanish, audio-recorded and transcribed by the first author. The transcripts were transferred to Qualitative Data Analysis (QDA) software (MaxQDA) and coded in English.

Data analysis encompassed an extraction of the basic information of the projects (e.g., foundation, activities, funding, etc.) as well as of the individuals (e.g., age, formal studies, etc.), a priori and a posteriori coding. A priori categories were deducted during the first coding round from the interview guidelines, transformative learning theory (e.g., learning outcomes), barriers and drivers, and the chronological order of projects participating in the niche. On the next coding rounds, a posteriori categories were identified in an iterative process between the data and the data analysis. From the data, we also found that within some of these categories, there were similar themes that could be grouped. For instance, a prior category, “learning outcomes”, encompasses the a posteriori categories, such as “knowledge and skills about the niche”, “entrepreneurial knowledge and skills”, and “normative learning outcomes”. These categories entailed common themes, for example, “knowledge of the textile market” for the first a posteriori category, “improving leadership skills” for the second, and “understanding other perspectives”. For a better visual representation of these categories and themes in relation to each entrepreneur interviewed, we made use of the visual tool “MaxMaps” included in the MaxQDA software package. Data from the interviews were supported by additional data from document analysis (e.g., projects web site) and through observations in the fieldwork. Theoretical saturation was reached for the exploratory scope of this work by grouping the cases as meta-level actors, material suppliers and fashion brands.

4. Study Context: The Sustainable Fashion Niche in Mexico

In this study, we focus on the local, sustainable fashion niche in Mexico. The textile industry in Mexico, like in many other countries, faces negative environmental impacts, poor and largely unregulated working conditions, which have negative effects on productivity and on the health of workers and a lack of modernisation limits the competitiveness of the industry against products and materials imported from China [56]. Compared to other countries facing similar challenges regarding the textile-fashion regime, Mexico also faces unique ones: First, because of its geographic location, Mexico is the main linkage between North America and central-south America markets, resulting in many textile factories and many trading routes being established, making Mexico an important provider of textiles material and garments to the whole continent. Second, because Mexico’s population aspires and tends to adopt fashion trends in western culture, Mexicans represent one of the major fashion consumer groups in the world [57].

The local sustainable fashion niche in Mexico responds to the challenges by introducing sustainably made supplies (dyes and fibres), waste-reduction measures and upcycling techniques into the manufacture processes. It also gives value and visibility to the artisanal production of regional and indigenous clothes, thereby ensuring social justice for marginalised indigenous populations, especially the women among them.

4.1. Description of the Case Studies

The six projects selected as case studies for the sustainable fashion niche in Mexico are located within a domestic supply chain; most of them are physically based in Mexico City. We follow Buchel et al. [45] categorisation of sustainable fashion niche actors (technology and fibres, business models and customer relations, and value chains models in partnerships) to group our case studies according to their position in the supply chain (see Table 1 for an overview).

Table 1. Overview of the projects that participated in the study.

Case Study Code	Entrepreneur Code	Position in the Supply Chain	Year of Foundation	Activities	Number of Workers	Sources of Initial Financing
CS1	entrep-1	Meta-level actors	2015	Provision of consultancy, communication, research and training services on topics of sustainability for the textile and fashion industry.	Two permanent people (owner and her partner) and two other people hired by the project.	Personal loans and sponsorship.
CS2	entrep-2	Meta-level actors	2016	Linking up (fashion) designers from the state of Morelos with communities of indigenous artisans to produce clothes or accessories with a focus on social justice, conservation and circular economy.	Group of ten brands and five people working in logistics and organisation.	Public resources from the government.
CS3	entrep-3 and entrep-4	Material suppliers	2018	Development of organic dyes through nano- and biotechnology.	Nine people of whom five are the founders of the project.	Prize and collaborating with investors.
CS4	entrep-5	Material suppliers	2014	Manufacture of fabrics from recycled materials such as PET, cotton, wool, polyester, acrylics.	Six people and a network of local textile workers.	Own capital.
CS5	entrep-6	Fashionclothing brands	2017	Design and manufacturing of new but zero waste clothes based on upcycling processes. The products are then retailed online or through various stores.	Owner only.	External funding application and money from another job.
CS6	entrep-7	Fashionclothing brands	2017	Design and manufacture of backpacks and accessories (e.g., wallets, purses) from textile waste (i.e., second-hand clothes). They retail their products online, through other retailers or variety stores.	Founder and four other people (those who sew/manufacture the backpacks).	From the sales of previous products.

4.2. Group 1: Meta-Level Actors

These projects are not positioned directly within the supply chain but at its meta-level. Although they do not participate directly in the production of a specific product, they provide mostly networking, training and communication or consultancy services to other companies and entrepreneurs in the domestic supply chain, even to the general consumers.

Case Study 1 (CS1): This project is a business platform that provides consultancy, communication, research and training services on sustainability topics in the fashion industry. It was conceived by a female entrepreneur (entrep-1) as a communication blog in 2011 and evolved to become a consultancy platform in 2015, financed by sponsorship and personal loans. Currently, this project has three permanent or primary associates, and it has positioned itself as a referent in the field of sustainable textiles and fashion.

Case Study 2 (CS2): This project is a platform that brings together designers and communities of indigenous artisans to produce clothes or accessories with a focus on social justice, conservation and a circular economy. It started in 2016 as an event for a public sustainability-oriented programme organised by the state government. Founded by a female entrepreneur (entrep-2), this project was initially supported financially by the government. However, it became an independent project constituted by a group of ten local brands and a community of textile artisans.

4.3. Group 2: Material Suppliers

The projects in this group produce sustainably made material, such as fibres, fabrics, yarns and dyes, and supply them to companies such as fashion brands or other companies in the supply chain.

Case Study 3 (CS3): This is a start-up that develops organic textile dyes from bio- and nanotechnology techniques as alternative dyes to address the water pollution issue. This project was founded by five people, including one male and one female entrepreneur (entrep-3 and entrep-4, respectively). This project was founded in 2018 at an entrepreneurship camp and won an international start-up competition where the founders had the opportunity to launch their project and were awarded a money prize for use in formalising their start-up. Through collaborating with investors and other professionals, this start-up is currently trying to grow as a company.

Case Study 4 (CS4): This company is a network of textile agents constituted as a small to medium company. It co-develops fabrics from recycled materials such as Polyethylene terephthalate (PET), cotton, wool, polyester and acrylic. Through personal financial inputs, this project was incubated as a side project in 2015 by a male entrepreneur (entrep-5) from another company dedicated to the production of recycled serapes (long blanket-like shawl). In addition to the network of textile agents, this company employs six workers. Currently, it is positioned as one of the most important suppliers of sustainable fabrics in Mexico and Latin America.

4.4. Group 3: Fashion Clothing Brands

This group consist of projects focused on the design of their original products while being provided with materials from other projects or companies. Although they manufacture their own products, they also subcontract the manufacturing process to other local groups. Some of them are also engaged with indigenous and rural communities. They may have their own physical stores, selling their products directly or through various external retailers.

Case Study 5 (CS5): This project designs zero-waste clothing from recycled fabrics, second-hand garments or clothing remnants. It was initiated in 2011 by a female entrepreneur (entrep-6) as an individual project during her university course of study. The fashion brand was founded in 2017 with personal funding and money from a fundraising campaign. Entrep-6 and a subcontracted seamstress produce the garments. The products are sold locally and online.

Case Study 6 (CS6): This project is dedicated to making backpacks and other accessories from textile waste and second-hand clothes. It was initiated by a female entrepreneur (entrep-7) in 2015 as a

university project, and it became a brand in 2017. The initial sales success of the project meant that she could self-finance the project. This start-up consists of four people, three of them dedicated to the manufacturing process with *entrep-7* participating as the manager and designer. The products are sold via social networks, online and in variety stores.

5. Results

We single out three distinctive phases in the formation and development of the sustainable fashion niche in Mexico with learning happening in each phase (see Figure 1): the first phase, awareness of the niche, encompasses entrepreneurs' prior learning experiences concerning the niche. The second phase, entry into the niche, refers to entrepreneurs' learning process and outcomes while engaging with their projects. The third phase, development of the niche, entails a social learning process manifested in projects networking inside the niche and interacting with actors at the regime level. In what follows, we present our findings structured along with these phases and provide exemplary, typical direct quotations to provide examples of the *a posteriori* categories (the reader can find the direct quotations in Spanish in Appendix C).

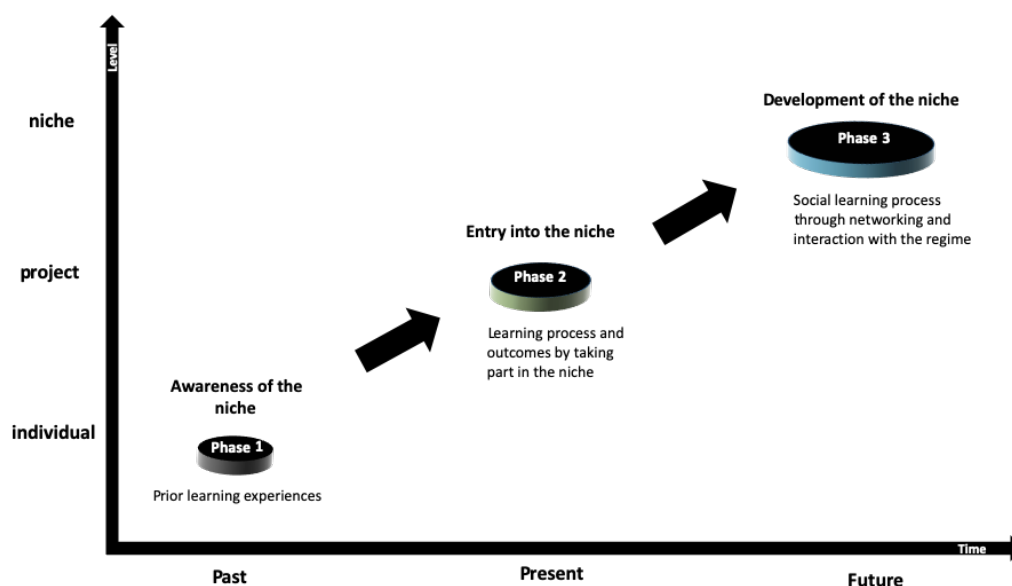


Figure 1. Phases in the formation and development of the niche.

5.1. Phase 1: Awareness of the Niche

The first phase refers to prior learning experiences regarding either sustainability, textiles, or both, that constituted individuals' frames of reference and led them to become aware of and venture into the sustainable fashion niche. These prior experiences can be further clustered in the four dimensions of (1) family-related, (2) individual attitudes, reflecting individual interests and values about the environment and social problems, including but not limited to, the textile sector, (3) educational exposure and (4) work-related. Figure 2 shows which of these dimensions are part of the entrepreneurs' frames of reference.

For each individual, a combination of two or more of these experiences raised awareness of the sustainable fashion niche and initiated their engagement in it. These experiences were often part of a process of continuous learning. However, at some point, individuals encountered a disorienting dilemma that caused transformative learning and a re-orientation of their behaviour. This is evident when the strong interest in social issues and human rights (*individual attitudes*) of *entrep-1*, combined with the course she took for her bachelor degree (*educational exposure*) led her to look more closely at the challenges of an unsustainable textile sector, resulting in insights that deeply influenced her:

It shocked me a lot (...) to know how a multibillion industry that involves absolutely every political, economic, developmental, social, international, commercial topic ... how it was possible that (the textile industry) had such a big impact at the social and environmental level. (entrep-1, direct and translated quote).

This encounter changed her area of interest. When entrep-1 wrote her thesis, it made her want to contribute to a transformation of the Mexican textile industry towards a more sustainable model:

I found out what I wanted to undertake with this project, with this business, and to make a change in the industry, something positive with impact, and this is what I want to do for my whole life. It doesn't matter how long I take; it doesn't matter how much it costs me ... this is my life and my professional project. (entrep-1, direct and translated quote).

Another example is that of family-related prior experiences as in the case of entrep-6, where a close experience with the textile industry made her concerned about environmental challenges (*attitudes dimension*) and triggered the decision to start the upcycling of clothes.

Where I used to live there are jeans factories (that) ... pollute horribly ... the water, the environment; the people who work there inhale all these chemicals, and there are a lot of diseases (...) (Then) I started to investigate and found out that in order not to pollute, one must reuse waste. So, it occurred to me (that) with all the clothes I had, to start reselling clothes again with the mended and also with the remnants (that) my mom had. (entrep-6, direct and translated quote).

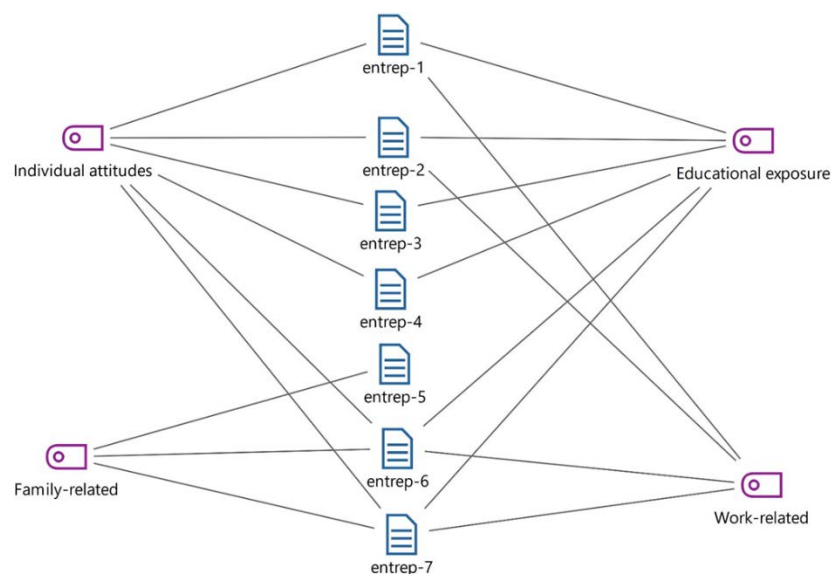


Figure 2. Prior experiences dimensions related to each entrepreneur interviewed.

5.2. Phase 2: Entrance into the Niche

In this phase, entrepreneurs entered the sustainable fashion niche with their respective ventures. The learning process in this phase involves individuals acting in a new environment and (1) identifying external barriers, (2) developing strategies to overcome these barriers, (3) resulting in an array of learning outcomes.

5.2.1. External Barriers

We clustered the external barriers that entrepreneurs experience when entering the niche as epistemic, economic, social and political. Figure 3 shows which of these barriers were mentioned by each entrepreneur.

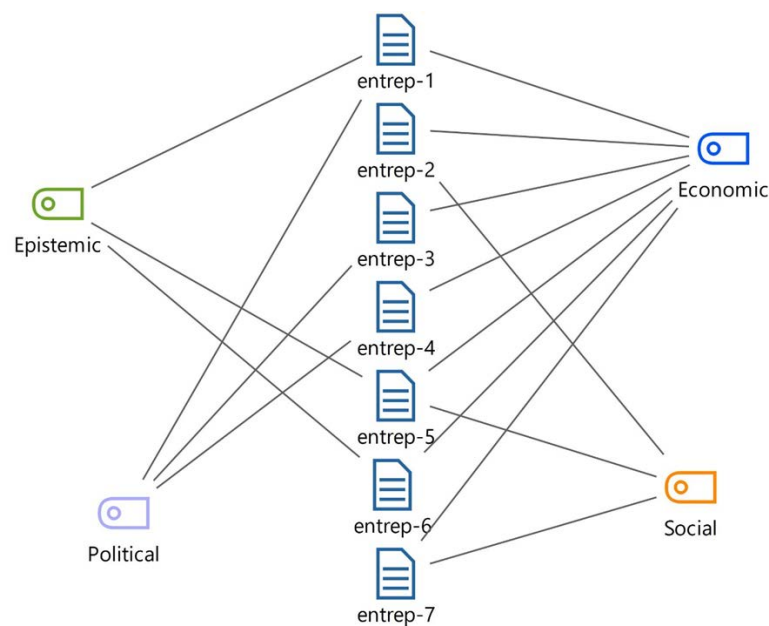


Figure 3. External barriers mentioned by each entrepreneur interviewed.

Epistemic barriers encompass lack of information and the small number of efforts in scientific research regarding sustainable textile processes, techniques and materials. In this sense, students and entrepreneurs willing to explore and innovate in this field lack academic support. Entrep-1, referring to the barriers, commented:

(Innovating) interests me, but I am not applying it because I do not know how to, and no one can tell me how to do it. (entrep-1, direct and translated quote).

Economic barriers, which was one of the most mentioned barriers, refer to scarce financial resources to buy sustainably produced materials, acquire and use spaces or infrastructure, hire a work base or conduct research for further experimentation. For instance, most of the interviewees pointed out the high costs and lack of suppliers in Mexico for sustainable materials:

I realised during this project that it is very hard to find materials that are more natural, more ecological (or) recycled, I mean, it is really very difficult if you want to work with a material that is 100% recycled, 100% natural, you have to bring it from other countries. (So), the cost is very high for that reason, because (such material) is not sold here. (entrep-7, direct and translated quote).

Moreover, projects in this niche often face mistrust from buyers and consumers. For suppliers of materials and for fashion brands, their potential buyers do not trust sustainably made products and, hence, stick to conventional products:

In the end, people still prefer the trend, (and even though) they begin to consider to consume locally, (something) made in their own country, it is still attractive the idea of “(well), but I already know this brand, it is an international brand, so it cannot fail me, and this (other) brand I don’t know it.” (entrep-7, direct and translated quote).

Finally, the political barrier is the lack of incentives from the government to support actors and entrepreneurs who want to contribute to the transformation of the industry towards sustainability. Entrep-1 commented that this topic is not a priority for the government due to the lack of knowledge about how the fashion-textile industry works:

There are no studies to raise awareness of how the textile industry works in Mexico as a sector at the national level. Therefore, if you do not understand it, you cannot link one to the other, so there cannot be public policies or regulations, because each industry is seen on its own and not as part of a value chain. That is the big problem. (entrep-1, direct and translated quote).

5.2.2. Strategies to Overcome the Barriers

Entrepreneurs have drawn on different strategies to overcome the barriers presented above. Figure 4 shows which of these strategies were mentioned by each entrepreneur.

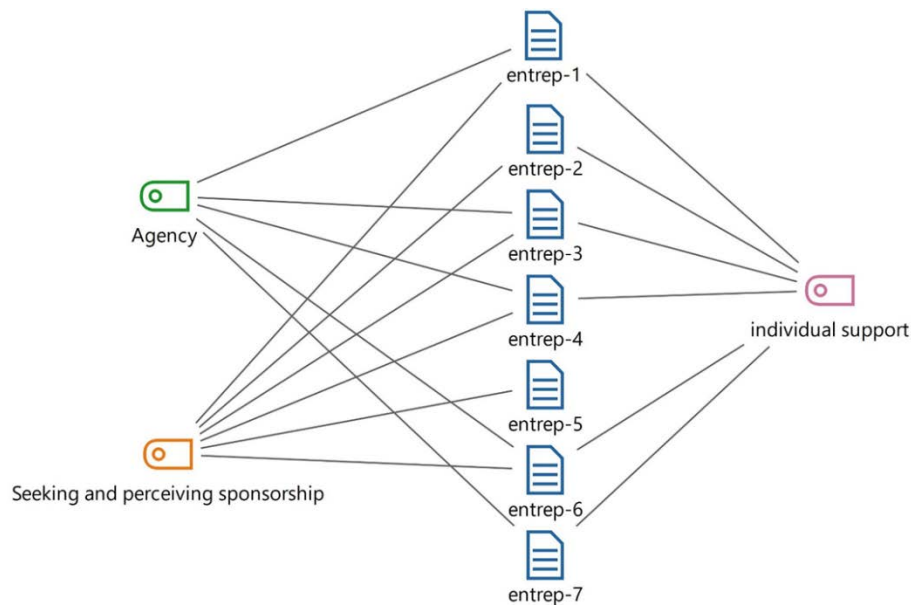


Figure 4. Strategies mentioned by each entrepreneur interviewed.

Agency is manifested in the interviewees' strong motivation to contribute to a better society and environment and to become a change agent for the transformation of the textile industry. In an entrepreneurial spirit, some of the interviewees mentioned that they were not only seeking to start up a project and make a profit from it; they also wanted to have a more significant impact by raising awareness about the importance of sustainability in the fashion textile industry.

Seeking and perceiving sponsorship and support from third parties, public and private institutions proved to be another impactful strategy. Entrep-2, for example, mentioned:

The last event was 100% sponsored, (but) there wasn't any (economic) support. I mean, the governmental support was only for the facilities and the marketing of the event; however, the business sector has contributed, because, in a certain way, they see this as an area of opportunity. It is interesting when the business sector invests in this topic of fashion. (Entrep-2, direct and translated quote).

Furthermore, projects have received support from other, more prominent companies and foundations in terms of visibility. In this regard, entrep-5 mentioned:

Two companies, with which we have worked on this matter of social entrepreneurship, have helped us a lot in aspects of visibility and that has catapulted us to achieve more things. Otherwise, it would have been more difficult to gain recognition (in the textile sector). (entrep-5, direct and translated quote).

Individual support proved to be the most important driver for entrepreneurs. Almost all of them had mentors such as bosses, professors or family members whose support has been crucial. Others received support from their relatives and friends, co-workers or business partners:

I think that the greatest thing, and what I most appreciate, is the people who have joined the project for nothing in return. I mean, without a financial pay-back, because sometimes I haven't (the financial) capital to pay people (...) The fact that someone believes in you is retribution that you can't pay with money. (entrep-1, direct and translated quotation).

5.2.3. Individual Learning Outcomes

This process of entering the niche and overcoming the external barriers resulted in an array of individual learning outcomes, of which gaining knowledge and skills about the niche, entrepreneurial knowledge and skills, in addition to normative outcomes, figured prominently (see Figure 5).

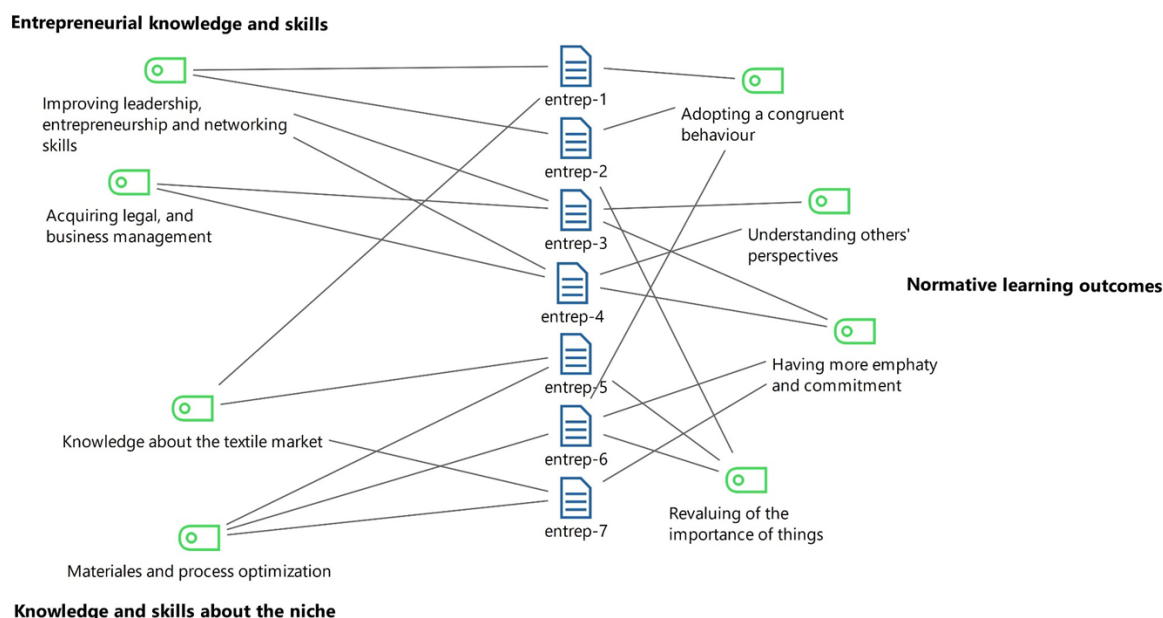


Figure 5. Learning outcomes referred to each entrepreneur interviewed.

Knowledge and skills about the sustainable fashion niche refer primarily to the field of fashion and textiles, ranging from Mexican traditions, new sustainable materials to process optimisation. For instance, entrep-7 said:

I have improved the quality of the processes and the backpacks. I have also tried to optimise certain processes to avoid wasting fabric (...) I have learned a lot about Mexican embroidery and the entire textile culture in indigenous communities. (entrep-7, direct and translated quotation).

In addition to such basic knowledge, every entrepreneur developed various entrepreneurial skills, especially in leadership, business management and legal issues. For example, entrep-3, as a nanotechnology engineer had to learn different things from different fields of knowledge:

Now, I have to learn legal terms, financial terms, to think how an administrator would do it, to imagine myself talking about accounting related things ... (entrep-3, direct and translated quote).

Beyond the knowledge and skills that are directly related to the profession, learning also led to a reflection and reconfiguration of individual values and norms. Individuals learned to be more congruent with themselves, e.g., by changing their consumption attitudes. For instance, *entrep-2* commented:

Now I think more before purchasing anything, and I repeat it, it is not only what you eat, but also what you wear, it is to be coherent with myself, from sorting the garbage at home to buying things that are worth it for which I can pay a bit more. But it has helped me a lot to change my perspective and to value what I have around me. (*entrep-2*, direct and translated quote).

Moreover, related to what they learned about optimising resources, they have changed the way they value things. In this regard, *entrep-5* said:

Basically, I am a finance person, so the aspect of prioritising money, I mean, the business was the priority. At this moment we are already making decisions based on more variables, for instance, the impact of what we do, which for us is very important. This is one of the most important variables when we make decisions in the production (process) (*entrep-5*, direct and translated quote).

5.3. Phase 3: Development of the Niche

In this third phase, entrepreneurs have settled down in their ventures, to some extent, and continue to contribute to developing the niche. This leads to two sorts of social learning processes. The first is a process of network building among projects and initiatives within the niche; the second is an interaction and communication between niche projects and actors at the regime level. (see Figure 6).

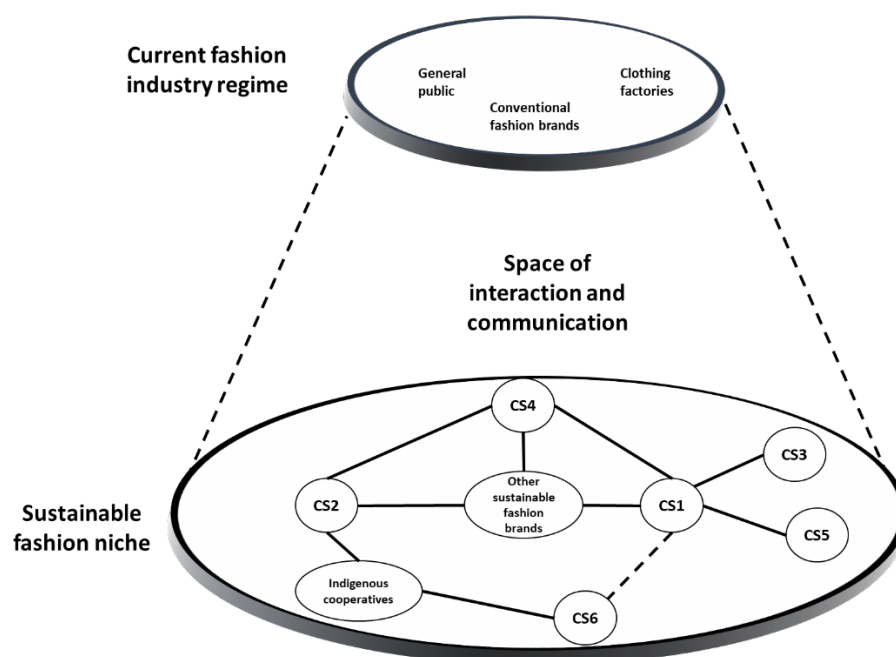


Figure 6. Representation of the network of projects in the sustainable fashion niche and the interaction with the regime level.

When the different projects in this niche started to share information or collaborate, they became visible to one another, and network building occurred. In this regard, *entrep-5* mentioned:

There is some sort of a network; we almost know each other (...). Actually, the issue of sustainable fashion in Mexico is still very small. I mean, almost everyone knows each other, we have talked for a few minutes. There is an informal network. Many of them

(collaborations) are marketing support, of ideas; we support one another in different ways. (entrep-5, direct quotation).

Figure 6 portrays the constitution of the network of projects as case studies in the sustainable fashion niche in Mexico, and the space of interaction and communication between the niche and the fashion industry regime in Mexico.

The lines between case studies indicate their connection based on established collaboration formats, ranging from only sharing information to having a commercial relationship. The dashed line between CS1 and CS6 indicates that they have not directly collaborated, yet they were sharing the stage at a communications event in a Mexican university. CS1, CS2, CS4 have also been collaborating with other sustainable fashion brands, and CS2 and CS6 have been working with indigenous cooperatives.

The interaction and communication between the sustainable fashion niche and the current fashion industry regime (conventional fashion brands, the public, clothing factories, etc.) are manifested when projects open and communicate the field of sustainable fashion by making information accessible, generating knowledge and raising awareness. Figure 7 shows the social impact, which the interviewed entrepreneurs think they are making with their respective ventures.

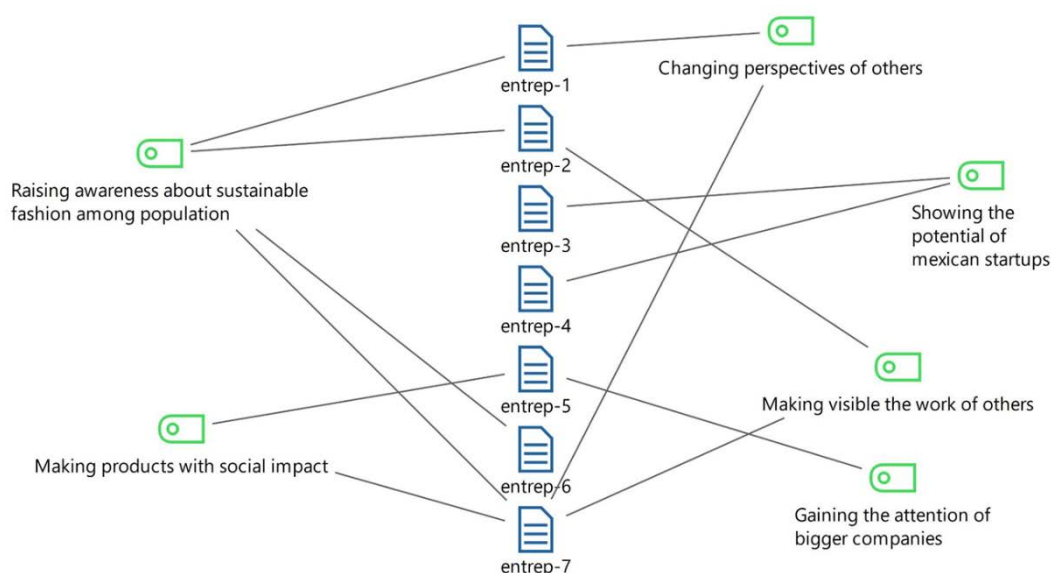


Figure 7. Social learning outcomes referred to each entrepreneur interviewed.

For instance, these projects have been contributing to the raising of awareness about the niche by developing knowledge and making information more accessible. In the words of entrep-1:

I think that in terms of communication of knowledge, the development and knowledge, or the development of research, of material, I think that is the biggest impact and the accessibility to it. The fact that people today have access to this material because they have had a sensitisation about the topic (of sustainable fashion), which didn't exist 13 years ago. (entrep-1, direct and translated quote).

Interviewees also mentioned that their products are having a significant impact because the consumers or buyers now accept the new sustainable products; they are changing their perspectives. In this vein, entrep-7 said:

Many people have been interested in donating garments for the production of backpacks (...) So, they make this shift in their thinking: "Well I am not going to throw away all of the clothes that I am not wearing; (I would better) give them a second use, and from there, to begin to consider my way of consuming". (entrep-7, direct and translated quote).

Furthermore, through collaborating with some NGOs, consultancy offices and conventional fashion brands, the sustainable fashion niche is gaining the attention of bigger Mexican textile industries. On this subject, *entrep-5* said:

So, we have had an impact on big companies, on the discourse of big companies, not only in the ideas but also in the way they are communicating their objectives. (*entrep-5*, direct and translated quote).

6. Discussion

The sustainable fashion niche in Mexico has been evolving mainly due to the ventures of independent and locally oriented entrepreneurs. However, the role of actors at the regime and landscape-level should not be underestimated [14], and this is certainly true here as well. From our findings, we see learning occurring predominantly as individual learning in the first two phases and as social learning in the third phase of the development of the niche. The first two phases have much in common with two stages in entrepreneurial learning, namely, “learning prior to start-up and learning during the entrepreneurial process” [58].

First, the prior learning dimensions of the reported entrepreneurs tell us that, before entering the niche, these entrepreneurs were not experts in the field of sustainable fashion, perhaps only in textiles or only in sustainability, but not in both fields. That does not necessarily mean that they were unprepared for this endeavour; however, according to [58], the learning prior to starting up determines the way entrepreneurs are going to face the venturing process. From our findings, we can see that entrepreneurs’ lack of expertise in either the sustainability or the fashion field, combined with the epistemic barrier, made the entrepreneurs struggle to find available information and research in the field of sustainable fashion.

Second, in entrepreneurial learning literature, it is often mentioned that critical events occur when entrepreneurs start to perform tasks in the venturing process entailing a specific emotional charge [58,59]. However, our findings suggest that the concept of critical events expands this notion in sustainable entrepreneurship, that is, critical events in the lives of entrepreneurs are also related to environmental and social disorienting dilemmas that challenge their frames of reference and, ultimately, constitute a crucial factor for entrepreneurs deciding to venture into the sustainable fashion niche.

For the third phase of the niche development, our findings provide evidence that “achieving social innovation, by definition, implies social learning” [1]. This is manifested in two processes: The first is the building up of a project network inside the niche, and the second is the interaction of the niche projects with actors at the regime level. From the evidence of our study, we see that entrepreneurs learn in a multi-actor setting [60], that is, they do not act on their own. Instead, they act in specific social communities, namely entrepreneurial networks, where they learn by establishing relationships and interacting with other agents in the social network context [58,61,62]. Moreover, since social learning outcomes entail the formation of new relationships and interconnections [63,64], we argue that the formation of the network inside the niche is an outcome of this social learning process.

Furthermore, our findings suggest that communication efforts of niche projects and their interaction with actors at the regime level are slowly resulting in double- and triple-loop learning, which are two essential elements of social learning [60,65]. Primarily, the niche projects in sustainable fashion aim to do things differently (double-loop learning). This is manifested when they communicate the niche and innovate in the form of products or services, where some aspect of the articulation of demands and expectations between entrepreneurs, regime level actors and users is just beginning to take place [6]. This kind of learning can also be inferred from interviewees’ perceptions about raising awareness and changing the perspectives of the public and of regime actors towards sustainable fashion. For instance, gaining the attention of bigger companies means that market incumbents in Mexico are being challenged by newcomers and start-ups regarding innovation in fashion and textiles [49]. On the other hand, the sustainable fashion global niche has been growing and making big companies start reorienting their practices towards ethical consumption, fair-trade and circular economy [66,67].

Therefore, we see, in learning occurring in the development of sustainability niches, a potential for transformative social learning. This is because it entails not only a change in individual frames of reference but also the change in frames of reference to social groups or organisations.

Applying and relating the insights of transformative learning, experiential learning, and social learning to the case helps us to understand that learning in niches is not just learning by doing through activism. The action component manifested in experimenting with an innovation (e.g., producing recycled fabrics) involves phases of disorientation, critical reflection and discourse; nonetheless, these elements of transformative learning are not always explicit during the entrepreneurs' venturing process. In the findings, we can infer from *entrep-1* and *entrep-6* excerpts in phase one, that as a result of their disorienting experiences, they embarked on a critical reflection process and changed or strengthened their perspective and orientation towards sustainable fashion. Although reflection processes are not mentioned explicitly, the data show that they reflected upon the situation and their assumptions. Moreover, in the case of discourse, its occurrence can be inferred in entrepreneurs' interaction with other projects in the niche network or with actors at the regime level. Because discourse implies making meaning through challenging and validating the assumptions of others, the change of perspective and the raising of awareness of actors at the regime level could be preceded by discourse activities. It is essential to consider that disorienting dilemmas, critical reflection, discourse and action engagement occur throughout the different phases of the development of the niche. All of this brings to mind one critical issue around transformative learning theory, namely that some scholars have contested the theory [68,69] by arguing that transformative learning processes do not follow the stages established by Mezirow [36]. Our proposition here is that not all elements or analytical categories of transformative learning always have to be explicit in all studies; rather, the different elements of this learning theory help us to understand unexplored learning phenomena, such as learning in transitions.

Finally, although scholars in transitions literature allude to conditions that support learning in the development of sustainability niches [3,5], due to the lack of empirical studies about learning in this area, there is no account of the barriers that hinder the learning of entrepreneurs as they venture into the niche. This is problematic, especially in the context of developing countries, because it is crucial to anticipate these barriers in order to propose general and context-specific conditions that better support the learning of entrepreneurs and, hence, avoid undesirable failures and results. One of the major barriers in the development of sustainable niches is that start-ups have limited economic resources because projects need infrastructure, equipment and financial resources to innovate further and experiment. We argue that this barrier is one that impacts negatively on the learning of these entrepreneurs and, therefore, in the development of the niche. Nonetheless, the fashion business environment in Mexico has been just recently open to explore new alternatives in sustainable fashion. Slowly, alliances are starting to form in order to cope with the inherent challenges of this industry but with a sustainability perspective. We suggest that this sustainable fashion niche in Mexico has been functioning as a space where network building occurs [5], which allows not only the further diffusion of innovations but also strongly supports individual and transformative social learning processes.

7. Conclusions

In this paper, we have attempted to provide an understanding of the learning phenomena around the formation and development of sustainability niches, through exploring the learning processes and outcomes within the different phases of the formation and development of the sustainable fashion niche in Mexico. We have identified three major phases that evolve over time and span from the individual level to the niche level. For the first phase, awareness of the niche, we clustered four main dimensions of the prior learning experiences of the entrepreneurs; for the second phase, entry into the niche, we analysed the external barriers and strategies that entrepreneurs had to overcome to succeed in the niche, as can also be seen in their learning outcomes; and, for the third phase, development of the niche, we found that a social learning phenomenon occurs, which is manifested in the formation of a

ventures network inside the niche and in the interaction efforts carried out between niche entrepreneurs and actors at the regime level.

Both entrepreneurial learning theory and transformative learning theory shed light in uncovering the black box of learning in niche formation. The findings show that as entrepreneurs venture into the sustainable fashion niche, they enter a process of transformative social learning, which is explicitly manifested in different elements, such as the formation of frames of references, disorienting dilemmas experienced, critical (self-) reflection, action engagement and configuration of networks and relationships inside and outside the niche. From the results, we draw three main conclusions: (1) Entrepreneurs' prior learning determines the way they experience the venturing process. (2) Critical events or disorienting dilemmas in entrepreneurs' life have been crucial factors for them to decide venturing into the niche sustainable fashion. (3) Transformative social learning takes place as the niche of sustainable fashion develops, through the formation of the network inside the niche and raising awareness of actors at the regime level.

Our study suggests that, although the sustainability niche provides rich opportunities for individuals to venture into projects [70], it is the effort that entrepreneurs put into their ventures that develops the niche. Even though our present study is exploratory in nature, it provides valuable insights about the importance of studying learning in sustainability transitions research more closely, more specifically, regarding sustainability niches. First, we contribute to a better and more detailed understanding of a multi-level perspective model through exploring sub-levels within the niche level, that is, how the individual level in transitions evolves to the development of a niche. Second, this paper also reinforces the theoretical connection between entrepreneurial learning and transformative learning, the latter being a learning theory that supports the analysis of the learning of entrepreneurs. Moreover, this paper also illustrates the potential that both entrepreneurial and transformative learning has in explaining the learning phenomena occurring in the early development of sustainability niches.

We acknowledge the limitations of our study regarding the extent of the depth in the elaboration of some conceptual elements of transformative learning theory, such as critical reflection and discourse, as well as the utilisation of entrepreneurial learning. Due to the exploratory character of this study, we cannot provide more general, detailed and confirmatory explanations regarding the learning processes, outcomes and conditions involved in the development of sustainability niches. Moreover, we are aware that the findings from this study cannot be extrapolated to the study of the same phenomena in other geographical contexts and types of niches.

Further research is needed in assessing the impact of the development of niches in user practices, the extent of the influence that conditions at the regime and landscape level exert on the development of the niche. Moreover, a more detailed study is required to differentiate the learning processes and outcomes of entrepreneurs according to their position in the supply chain.

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Appendix A

Table A1. Interview guide (original in Spanish).

Tema	Preguntas
Información del emprendedor y del proyecto	¿Cuál es tu nombre?
	¿Cuál es tu edad?
	¿Cuál es tu último grado académico obtenido y en qué campo?
	¿Cuál es tu actividad profesional actual?
	¿Cuál es el nombre de tu proyecto o start-up?
	¿Cuál es tu rol en él?
	¿Qué actividades lleva a cabo tu proyecto?
Trayectoria de aprendizaje individual antes del comienzo del emprendimiento en el nicho	¿Cuántas personas trabajan para/en tu proyecto?
	¿Cómo surgió la idea de crearlo? (Cómo se fundó, quien y cuando)
	¿Cómo se ha financiado hasta el momento?
	¿Cómo llegaste a interesarte en el campo de la sustentabilidad en la moda y textiles?
	¿Hubo algún evento decisivo en tu vida que te haya motivado a emprender en este campo de la sostenibilidad y la moda?
	¿Has tenido algún apoyo de personas durante este proceso de emprendimiento?
	Antes de que te interesaras en esto, ¿ya tenías alguna preocupación, conocimiento o predisposición hacia los temas ambientales y de sustentabilidad? ¿Cómo lo aprendiste?
Percepción/conocimiento individual sobre sostenibilidad del sector textil	¿Ya tenías conocimientos previos sobre moda y textiles?
	¿Cómo lo aprendiste?
Resultados de aprendizaje durante el funcionamiento del proyecto	¿Perteneceías o trabajaste en alguna organización con fines altruistas, ambientales o de justicia social?
	¿Cómo percibes el estado actual del campo de la moda y textiles sostenibles en México? ¿Qué problemas identificas?
	¿Qué has aprendido en cuestión de conocimientos y habilidades durante todo este tiempo trabajando en tu organización?
	¿Has redefinido tus valores y normas personales al estar trabajando en esto?
	¿Te consideras como un agente de cambio para contribuir a un cambio hacia la sustentabilidad en el sector de la moda y textiles?
Apoyos y barreras en el funcionamiento y potencial crecimiento del nicho	¿Cuál consideras que ha sido el mayor impacto positivo que con tu organización has logrado en este campo de la sustentabilidad y la moda en México?
	¿Qué apoyos/incentivos has encontrado para seguir funcionando/expandirte o en el campo?
	¿Qué limitantes/barreras has encontrado para seguir funcionando/expandirte o en el campo?
	¿Tienes planes de que tu organización crezca más? ¿Cuáles son?
Colaboración de redes entre nichos y otros actores y grupos	¿Qué necesitarías (apoyos/incentivos) para que tu organización tenga un mayor impacto para la transición hacia la sustentabilidad textil?
	¿Podrías mencionar los nombres de cinco proyectos con los más colaboración has tenido en cuestión de moda sostenible?
	¿Estarías interesado/a en formar parte de una red de otros proyectos innovadores en sustentabilidad del sector de la moda y textiles?
Pregunta de cierre	Finalmente, en términos generales ¿cómo has sentido la entrevista?

Appendix B

Table A2. Interview guide (translated to English by the authors).

Topic	Questions
Information about the entrepreneur and project	What is your name?
	What is your age?
	What is your last academic degree obtained and in which field?
	What is your current professional activity?
	What is the name of your project/start-up?
	What is your role in it?
	Which activities does your project carry out?
Individual learning trajectory before the beginning of the venture in the niche	How many people work in/for your project?
	How did you come up with the idea of your project? (How it was founded, who did it and when.
	How has your project been financed so far?
	How did you get interested in the field of sustainability in fashion and textiles?
	Was there a decisive event in your life that has motivated you to venture in this field of sustainability and fashion?
	Have you had any support from people during this venturing process?
	Before you got interested in this, did you already have any concerns, knowledge or predisposition towards environmental and sustainability issues? How did you learn it?
Individual perception/knowledge about sustainability in the textile sector	Did you already have previous knowledge about fashion and textiles? How did you learn it?
	Did you belong or work in any organisation with altruistic, environmental or social justice purposes?
	How do you perceive the current state of the field of sustainable fashion and textiles in Mexico? What problems do you identify?
Learning outcomes during the operation of the project	What have you learned in terms of knowledge and skills during all this time while working in your organisation?
	Have you redefined your personal values and norms while working on this?
	Do you consider yourself as a change agent that contributes to a change towards sustainability in the fashion and textiles sector?
	What do you consider to have been the greatest positive impact that your organisation has achieved in this field of sustainability and fashion in Mexico?
Drivers and barriers in the operation and potential growth of the niche	Which kind of drivers/ incentives have you found to continue operating/expanding or in the field?
	Which limitations/barriers have you encountered to continue operating/expanding or in the field?
	Do you have plans for your organisation to grow more? For example?
	What would you need (support/incentives) for your organisation to have a greater impact on the transition towards textile sustainability?
Network collaboration between niches and other actors and groups	Could you mention the names of five projects with the most collaboration you have had in terms of sustainable fashion?
	Would you be interested in being part of a network of other innovative projects in sustainability in the fashion and textile sector?
Closing questions	Finally, how did you feel in this interview?

Appendix C

The order of the quotations is according to their appearance in the results section.

Table A3. Direct quotations in Spanish.

Section (5. Results)	Original Quotation (Spanish)	Translation of the quotation (English)
5.1 Phase 1: Awareness of the Niche	Me impactó mucho (...) el conocer cómo una industria multibillonaria y que involucra absolutamente todo tema político, económico, de desarrollo, social, internacional, comercio... cómo era posible que tuviera un impacto tan grande a nivel social y luego en la parte ambiental (entrep-1, cita directa)	It shocked me a lot (...) to know how a multibillion industry that involves absolutely every political, economic, developmental, social, international, commercial topic ... how it was possible that (the textile industry) had such a big impact at the social and environmental level. (entrep-1, direct and translated quote).
	Fue cuando descubrí que quería emprender con este proyecto, con este negocio, y realizar un cambio en la industria positivo con impacto y que pues esto es lo que quiero hacer toda mi vida. No importa cuánto tiempo me tarde, no importa cuánto me cueste... este es mi proyecto de vida y mi proyecto profesional. (entrep-1, cita directa)	I found out what I wanted to undertake with this project, with this business, and to make a change in the industry, something positive with impact, and this is what I want to do for my whole life. It doesn't matter how long I take; it doesn't matter how much it costs me ... this is my life and my professional project. (entrep-1, direct and translated quote).
	En donde yo vivía hay fábricas de pantalones (que)... contaminan horrible... el agua, el ambiente; la gente que trabaja ahí aspira todos los químicos y hay muchas enfermedades (...) (Entonces) empecé a investigar y ya descubrí que para no contaminar tanto pues hay que usar de residuos. Entonces, se me ocurrió (que) con toda la ropa que tenía ahí empezar a vender ropa otra vez, con la reconstruida y también con los retazos que mi mamá tenía. (entrep-6, cita directa)	Where I used to live there are jeans factories (that) ... pollute horribly ... the water, the environment; the people who work there inhale all these chemicals, and there are a lot of diseases (...) (Then) I started to investigate and found out that in order not to pollute, one must reuse waste. So, it occurred to me (that) with all the clothes I had, to start reselling clothes again with the mended and also with the remnants (that) my mom had. (entrep-6, direct and translated quote).
5.2. Phase 2: Entrance into the Niche (External Barriers)	Me interesa (innovar) pero no lo estoy aplicando porque no sé cómo y no hay nadie que me diga cómo lo hago (entrep-1, cita directa)	(Innovating) interests me, but I am not applying it because I do not know how, and no one can tell me how to do it. (entrep-1, direct and translated quote).
	Me he dado cuenta en esto del proyecto que es difícil encontrar materiales como más naturales, ecológicos (o) reciclados, osea, en realidad es muy difícil si quieres trabajar con un material 100% reciclado, 100% natural, lo tienes que traer de otros países. (Así que) el costo es muy elevado por lo mismo, porque (tal material) no se vende aquí. (entrep-7, cita directa)	I realised during this project that it is very hard to find materials that are more natural, more ecological (or) recycled, I mean, it is really very difficult if you want to work with a material that is 100% recycled, 100% natural, you have to bring it from other countries. (So), the cost is very high for that reason, because (such material) is not sold here. (entrep-7, direct and translated quote).

Table A3. Cont.

Section (5. Results)	Original Quotation (Spanish)	Translation of the quotation (English)
5.2. Phase 2: Entrance into the Niche (External Barriers)	La gente al final de cuentas se sigue yendo por la moda, (y aunque) empieza a considerar ya el consumir de manera local, (algo) hecho en su propio país, sigue siendo atractiva la idea de “(bueno), pero ya conozco esta marca, es una marca internacional, entonces no me pueda fallar, esta (otra) marca no la conozco...” (entrep-7, cita directa)	In the end, people still prefer the trend, (and even though) they begin to consider to consume locally, (something) made in their own country, it is still attractive the idea of “(well), but I already know this brand, it is and international brand, so it cannot fail me, and this (other) brand I don’t know it.” (entrep-7, direct and translated quote).
	No hay un estudio(s) de cómo hacer consciente cómo funciona la industria textil en México como un sector a nivel nacional. (Entonces) si no lo comprendes, no hilas ninguna con otra, entonces no puede haber ni una política pública ni regulatoria, porque cada industria se ve por separado y no como una cadena de valor. Ese es el gran problema. (entrep-1, cita directa)	There are no studies to raise awareness of how the textile industry works in Mexico as a sector at the national level. Therefore, if you do not understand it, you cannot link one to the other, so there cannot be public policies or regulations, because each industry is seen on its own and not as part of a value chain. That is the big problem. (entrep-1, direct and translated quote).
	El evento pasado fue patrocinado 100%, (pero) no hubo tampoco apoyos (económicos). Osea, el apoyo gubernamental fueron las instalaciones, la difusión (del evento); pero también el sector empresarial se ha sumado, porque pues bueno de cierta manera también lo ven como 1 área de oportunidad. O sea que ya el sector empresarial invierta en este tema de moda está interesante. (entrep-2, cita directa)	The last event was 100% sponsored, (but) there wasn’t any (economic) support. I mean, the governmental support was only for the facilities and the marketing of the event; however, the business sector has contributed, because, in a certain way, they see this as an area of opportunity. It is interesting when the business sector invests in this topic of fashion. (Entrep-2, direct and translated quote).
5.2. Phase 2: Entrance into the Niche (Strategies to Overcome Barriers)	Dos empresas con las que hemos trabajado en este asunto del emprendimiento social, (nos) han ayudado mucho en aspectos de visibilidad y eso nos ha catapultado a poder lograr más cosas. Si no, sería muy difícil realmente lograr una fama (en el sector textil). (entrep-5, cita directa).	Two companies, with which we have worked on this matter of social entrepreneurship, have helped us a lot in aspects of visibility and that has catapulted us to achieve more things. Otherwise, it would have been more difficult to gain recognition (in the textile sector). (entrep-5, direct and translated quote).
	Yo creo que el más grande, y que es lo que más agradezco, es gente que se ha sumado al proyecto a cambio de nada; osea, sin valor económico, porque no he tenido a veces (el) capital (financiero) para pagar (a la) gente (...) Que alguien crea en ti es una retribución que no la puedes pagar con dinero. (entrep-1, cita directa).	I think that the greatest thing, and what I most appreciate, is the people who have joined the project for nothing in return. I mean, without a financial pay-back, because sometimes I haven’t (the financial) capital to pay people (...). The fact that someone believes in you is a retribution that you can’t pay with money. (entrep-1, direct and translated quotation).

Table A3. Cont.

Section (5. Results)	Original Quotation (Spanish)	Translation of the quotation (English)
5.2. Phase 2: Entrance into the Niche (Individual Learning Outcomes)	He mejorado mucho la calidad de los procesos y de las mochilas. He intentado también como optimizar ciertos procesos para evitar el desperdicio de telas (...) He aprendido mucho sobre el bordado mexicano y como toda esta cultura de textiles en las comunidades indígenas. (entrep-7, cita directa).	I have improved the quality of the processes and the backpacks. I have tried also to optimise certain processes to avoid wasting fabric (...) I have learned a lot about Mexican embroidery and the entire textile culture in indigenous communities. (entrep-7, direct and translated quotation).
	Ahora he de tener que aprenderme ahora términos legales, términos financieros, de pensar como lo pensaría un administrador, de imaginarme hablando cosas contables. (entrep-3, cita directa)	Now, I have to learn legal terms, financial terms, to think how an administrator would do it, to imagine myself talking about accounting related things. (entrep-3, direct and translated quote).
	Ahora pienso más antes de comprar cualquier cosa, y vuelvo a repetir, no nada más es lo que comes sino lo que vistes, pero también a ser coherente conmigo misma, desde separar la basura en casa o de hacer compritas que valen la pena, no importa, lo pago un poquito más. Pero si me ha ayudado bastante a cambiar mi perspectiva y a valorar más lo que tengo alrededor. (entrep-2, cita directa)	Now I think more before purchasing anything, and I repeat it, it is not only what you eat, but also what you wear, it is to be coherent with myself, from sorting the garbage at home to buying things that are worth it for which I can pay a bit more. But it has helped me a lot to change my perspective and to value what I have around me. (entrep-2, direct and translated quote).
	Básicamente soy financiero, entonces el aspecto de la prioridad del dinero, osea, del negocio era prioridad. En este momento estamos tomando ya decisiones basadas en más variables (por ejemplo, el) impacto que para nosotros es muy importante. Esta es una de las variables más importantes a la hora de tomar decisiones en (el proceso de) producción. (entrep-5, cita directa)	Basically, I am a finance person, so the aspect of prioritising money, I mean, the business was the priority. At this moment we are already making decisions based on more variables, for instance, the impact of what we do, which for us is very important. This is one of the most important variables when we make decisions in the production (process) (entrep-5, direct and translated quote).
5.3. Phase 3: Development of the Niche	Existe como una red, casi todos nos conocemos. Realmente es muy pequeño el asunto todavía de moda sustentable aquí en México. Osea te digo, casi todos nos conocemos, hemos platicado algunos minutos. Existe la red informal. Muchas (colaboraciones) son apoyos de mercado, de ideas, nos apoyamos entre nosotros de diversas formas. (entrep-5, cita directa).	There is some sort of a network; we almost know each other (...). Actually, the issue of sustainable fashion in Mexico is still very small. I mean, almost everyone knows each other, we have talked for a few minutes. There is an informal network. Many of them (collaborations) are marketing support, of ideas, we support one another in different ways. (entrep-5, direct quotation).

Table A3. Cont.

Section (5. Results)	Original Quotation (Spanish)	Translation of the quotation (English)
5.3. Phase 3: Development of the Niche	<p>Creo que, en términos de comunicación de conocimiento, el desarrollo de conocimiento o el desarrollo de investigación de material, creo que es el impacto más grande y la accesibilidad a la misma.</p> <p>El que hoy la gente tenga la accesibilidad a estos materiales porque han tenido una sensibilización sobre el tema (de moda sostenible), no había hace trece años (entrep-1, cita directa)</p>	<p>I think that in terms of communication of knowledge, the development and knowledge, or the development of research, of material, I think that is the biggest impact and the accessibility to it. The fact that people today have access to this material, because they have had a sensitisation about the topic (of sustainable fashion), which didn't exist 13 years ago. (entrep-1, direct and translated quote).</p>
	<p>Mucha gente se ha interesado en donar prendas para hacer las mochilas (...) Entonces hacen ese cambio de pensamiento: "Pues no voy a tirar toda la ropa que ya no uso, mejor (voy) darle un segundo uso y pues a partir de ahí a empezar a considerar también mi forma de consumo. (entrep-7, cita directa)</p>	<p>Many people have been interested in donating garments to produce the backpacks (...) So, they make this shift in their thinking: "Well I am not going to throw away all of the clothes that I am not wearing; (I would better) give them a second use, and from there, to begin to consider my way of consuming". (entrep-7, direct and translated quote).</p>
	<p>Entonces hemos impactado en grandes empresas, en el discurso de las grandes empresas, no solamente en las ideas sino en la forma en que comunican sus objetivos. (entrep-5, cita directa)</p>	<p>So, we have had an impact on big companies, on the discourse of big companies, not only in the ideas but also in the way they are communicating their objectives. (entrep-5, direct and translated quote).</p>

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