MICRO-BUSINESSES' CONTRIBUTIONS TO TERRITORIAL CAPITAL: VISITING DIFFERENT RESEARCH APPROACHES

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ABSTRACT

This paper is part of an ongoing research. Throughout it, different approaches to link micro-businesses activities with the development of territorial capital are visited. Five vignettes are provided to illustrate how these research approaches operate. Reflecting on each approach provides practical implications about the building and maintenance of some of the collective resources associated to 'territorial capital'. Adding on previous economists' understandings of territorial capital, this paper identifies an alternative research procedure that suggests how to develop and maintain some elusive dimensions of territorial capital, such as social, relational and human capital, and cooperation networks.

KEY WORDS: Research approaches, territorial capital, micro-businesses, individual preferences

Introduction

While many academics presumably might claim that in the past two centuries research helped to change the world fundamentally, most non-academics probably would challenge that claim. The world has changed most clearly due to the initiatives of highly skilled entrepreneurs who have been loyal to their dream and who day after day have tried to find ways to realise it. Examples include people like Rockefeller, Stanford, Gates, Jobs and Musk. Reputations like theirs tend to be remembered much longer than those of the politicians of their time (possibly because of the aura of having lots of money), even though the latter often could make and break the former's initiatives. One wonders why. Is not research a sure way to be informed about the world and hence to be able to reduce one's mistakes? In this paper we explore some answers.

Asking this question does not mean that there are not hundreds of authors who have tried to answer the same question (Schumpeter, 1934), or more pertinently have proposed that there is a relatively simple answer. It has been claimed, for example, that any process or activity can be supported by research (De Zeeuw, 2001). One way to do this is to identify

what variables influence our world, decide on what one wants to achieve and change some of the variables (the independent ones) to realise via other variables (the dependent ones) what we wish for. While straightforward, this approach appears to fail in two ways. The first is that it often proves difficult to identify what variables to include. In addition, what *we* wish to achieve may not be what *others* wish to achieve, so they may change their variables (or even our variables) such that they oppose our changes. This difference obviously is important, but it is not part of research, by definition. Something other than research appears necessary, therefore, to make the results of research useful. This extra often is identified as 'authority', someone who has the power to prevent differences in what *others* and *we* want, and hence thwart their opposition to change. This is of course well known. Stories about the 'imperial' behaviour of some of the business tycoons mentioned above abound.

The introduction of authority and power is not what we envisage. A person who can force others to agree on what is to be achieved can make mistakes. What we do wish to explore is what type of research includes what *others* want so two things can be achieved. Firstly, that what *we* want is not opposed by *others*. Secondly, that what *they* want helps *us* to achieve what *we* want – and vice versa. To provide a preliminary idea of what this may involve, we may think of plans. They are ubiquitous. Realising them constitutes a large part of what we do in daily life. People have plans to grow their businesses, to dine with friends, to help their children get an education. An important property of plans is of course that their realisation requires resources. These may include knowledge, capital, land, skills and many others – the accumulation of which takes many forms. One extreme is organised research. It usually proceeds by focussing on the acquisition of knowledge while excluding emotions like persistence and loyalty. At the other end of the range one finds organisations that focus only on the formulation of objectives, for example organisations that aim to help innovate. Our question is whether there is any form of research that helps to inform us of those resources and does not exclude them as such.

To explore answers to this question, we consider two levels of activity. The first is constituted by the heuristics individuals use; the way they act when conceiving and realising some plan. The second is constituted by the way people link their plans to those of others, for example when they consider opposition or when they imitate other people's plans. To explore the relation between the two levels we tell about three types of experience in Mexico in the form of vignettes. They are not case studies in the traditional sense, but are meant to serve as conversational devices to explore the relation between the two levels.

Vignettes

<u>Vignette 1 – Entrepreneurial activities as a way to reduce emigration in Jaral del Progreso?</u>
Jaral del Progreso is a town of 18 thousand inhabitants, located in a farming area in Central Mexico. It is characterised by two harvests per year, which make it one of the richest agricultural lands in the country. Notwithstanding this wealth, the level of migration from the area has been astonishing. During the 1960s the annual population growth was above 2%, but by 2005 it had fallen to 0.02%. If this trend continues, there will be an annual reduction of -2.13% by 2030. A first impression would be that this is part of the general tendency where people move from rural to urban environments, but this is not the case. The percentage contribution of Jaral del Progreso to the total population of the state of Guanajuato fell from 1% in the 50's to 0.6% in 2010, showing that migration from Jaral del Progreso is faster than from elsewhere. Different interpretations are available. The municipal government attributes it to the uneven distribution of wealth in the area; others view it as a community tradition. It could also be due to the 'sirens' song' of the American way of life, or serve as a sort of rite of passage into adulthood. This suggested studying systematically what each cause or factor contributes to the overall migration rate. One of us undertook a survey to identify these contributions. Plans to change the factors that might prove to contribute substantially to migration were to be developed next, jointly with the municipal government, as a way to reduce its rate.

When working on the survey, it was noted that Kandel & Massey (2002) had already conducted a similar survey in Zacatecas, another state in Central Mexico. They collected data from 7,000 students from 6th to 12th grade, nearly 15% of the state's student population. These authors proposed a model of their data that emphasised five factors that, as independent variables, might affect migration to the US.

Pr(migration) = f (-educ asp, +US asp, +involve, +prevalence, +controls)
where:

- *Pr (migration)* is the probability to migrate to the US
- *educ asp* is the aspiration to spend an additional year studying in Mexico
- *US asp* is the aspiration to live and/or work in the US
- +*involve* is the level of involvement of a family in international migration
- +*prevalence* is the prevalence of the migratory behaviour in the community
- +*controls* at the individual, familiar and community level.

Given our interest in factors such as gender, age and education level, we decided to conduct our own survey at the 'Centre for Social and Learning Services Access' (Centro de Acceso a Servicios Sociales y de Aprendizaje, CASSA). Our survey consisted of a one-page

questionnaire addressed to 194 of CASSA users. Among the selected group the desire to live in the USA proved to decrease by 3.7% for every year they had lived. This suggested that if something was to be done to reduce migration, one would have to focus on the youngest citizens. The municipal government decided to develop a program for young rural entrepreneurs in association with members of Tecnológico de Monterrey, an internationally renowned private university.

The effort described in this vignette follows the guidelines of traditional research. While the quality of the model proved to be acceptable in that context, the results in reducing migration proved to be disappointing. There is no evidence that migration has reduced. In retrospect the authors realised that there made a mistake in terms of the philosophy of their approach. Kandel and Massey's model had included aspirations as some of their variables. As this made the latter dependent, it was improper to ascribe properties of the sample to the individuals in the sample. In some cases, the motivation to spend extra time studying in Mexico eventually fuelled their wish to work in the US rather than reduced it. Training people in language (English) and business skills do not reduce their aspirations to migrate, quite the opposite, as this vignette illustrates.

<u>Vignette 2 – How can migration be reduced in Mineral de la Luz?</u>
Migration proved to be a problem in Mineral de la Luz as well. In the 1850's it was a silver-mining city in Mexico with 24,000 inhabitants. As the richest city in the State of Guanajuato it was even a formal candidate to become the seat of the State powers – but in 2009 the village had just 665 inhabitants. Many of the people who left went to the United States. In 2005, 11% of the Mexican workers based in US were born in Guanajuato, or 5% of its total population. The dramatic reduction of population in Mineral de la Luz does not hold for the whole of Guanajuato. The number of inhabitants in the State has grown 17% since 2000. The accepted explanation attributes the decrease to the ups and downs of the international silver market that has affected several mining communities. But there are data that contradict this explanation. The present State capital, also named Guanajuato, at a distance of just 10 km, was a small silver-mining city like Mineral de La Luz but its current population is close to 80,000. Although their mines are still exploited, its main income at present derives from tourism and governmental services. Tourism occupies 25% of the economically active population versus 5% working in the mining sector. This implies a change in focus that was deemed positive, so the question involved what would be needed to help the inhabitants of Mineral de la Luz (and other cities) develop this way.

Like many other questions in similar situations there is no easy answer. In 2004 the program Joven Emprendedor Rural (Rural Young Entrepreneur) was introduced to promote: (a) the productive reconversion of communities towards activities other than the traditional, (b) organic agriculture using hydroponics and greenhouses, (c) sustainable forest exploitation, and (d) eco-tourism projects. Following these ideas, Mineral de la Luz was selected to be part of the programme 'Pueblo Mágico' (*Magic Town*), through the State Government Plan for the period of 2006-2009. The aim of this programme is to increase the touristic value of villages by means of innovative touristic activities concerning culture, traditions, adventure and X-sports (SECTUR). In Mineral de la Luz these attempts were unsuccessful, but they triggered a genuine internal sentiment to preserve the community.

In 2006 pupils from the local junior high school requested training to run a tourist guide service. This led to further externally organised initiatives (from the State government and NGO's) such as a feasibility study for a museum, a theatre and ecotourism as well as to paving of the road that links the village with the cities of León and the capital of Guanajuato. Unfortunately, there were some opposing internal forces. The feasibility study would transfer ownership to an external agent. Paving the road would change the World Rally Championship route so it would need to move to other parts of the Sierra, thus reducing existing flows of tourists. Both proposals derailed.

One of the authors was invited to assist the villagers. Initially, he looked at 'areas of stability', i.e. areas where villagers agreed that nothing needed to change. Supporting common activities and interests might also indicate agreed 'areas for change'. Difficulties in finding these areas suggested exploring how people managed to live together notwithstanding many individual differences. We conducted a closed interview with 44 villagers. First, we asked them to identify the five places they preferred. Second, to describe five activities they enjoyed. Third, to mention five people they considered trustworthy. The results showed that opinion differed widely concerning commonly recognised features such as the central square, the river, the church, the hill, the mining entrance and the dam. The same was found concerning preferred activities, they could be shared only on a high level of abstraction, i.e. that people enjoyed to talk, to walk and to play! It did not surprise therefore that the majority of those considering the same person as trustworthy consisted of 4 of the 44 participants. Others were nominated only once or twice. These results suggested that the reason for the failure of the usual top-down strategies might be that they do not address individual preferences. They do not build agreement, trust or commitment to support the strategies. They neglect large parts of people's experiences.

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<u>Vignette 3 – How can academics increase their research output?</u>

One of the aims of the University of Tecnológico de Monterrey is to improve the quality of its staff. It is stated that it wishes to "form persons with integrity, ethical standards and a humanistic outlook, who are internationally competitive in their professional fields; at the same time, they will be good citizens committed to the economic, political, social and cultural development of their community and to the sustainable use of natural resources" (Tecnológico de Monterrey, 2005). Realising this aim did not prove easy, of course. A variety of approaches was explored in different campuses. We describe one that was initiated at the university's campus in Irapuato. It focussed on research.

It was decided to develop a research culture inside the campus in that research would become a natural part of the activities of its academics. The proposal consisted of getting the latter involved in research projects for community improvement. This would help them gain experience in research as well as make it possible to get students involved – as a community themselves, but also as a way to support the wider community (including the agricultural as the area around Irapuato is known for its strawberries). The implementation started with some courses, for instance, Systems Dynamics. There, students engaged several municipalities and governmental organisations, in projects related to water and sewage, the impact of the local oil-refinery, garbage collection routes, air quality as well as future educational-infrastructures. Other activities included the development of courses to increase the entrepreneurial skills of students.

Next, two experienced researchers from outside Mexico were invited to conduct some seminars to help establish a research community. This activity took place at two levels. First, at the individual level as a way to develop individual capabilities for conducting independent and original research, similar to what many PhD educational programs claim they do. Second, at the group level to help individuals create research programmes, i.e. develop mutual support. The program consisted of three 3-day sessions over a six-month period. The first session focused on developing an agenda for research projects. Two months later, a second session took place to evaluate the projects and to identify how to solve any difficulties. Four months later, a final session was organised to present results, share experiences and recognise any need for further training.

In a short period of time outstanding results were achieved. Starting from a situation of no resources, the group eventually had four projects funded by the *Consejo de Ciencia y Tecnologia del Estado de Guanajuato*, CONCYTEG (The Council for Science and Technology of the State of Guanajuato). Two projects received prizes for the research

quality achieved. The first focused on evaluating and improving the combination of organic production and hydroponic irrigation systems for strawberries; it was awarded 3rd prize in Guajanuato's State Prize for Innovation 2008. The second was a study to improve the design of low-cost automated systems for greenhouses by introducing high-tech solutions; this project achieved 2nd place in the same competition in 2009. In another project the development of clean alternative energy sources for greenhouses were studied, mainly based on solar panels. Finally, a project about the influence of strawberries' nutraceutics on memory improvement took place.

The more the research group became identified as successful, the more external requests for help arrived. A number of studies were conducted to identify high-value opportunities for regional development and to evaluate the impact of entrepreneurship in Guanajuato. Eventually, national recognition was achieved, with the appointment of the group as a Mexican National Contact Point for Food, Agro-industry, Biotechnology and Fisheries. As the result of these activities, the group was able to collect more than £200,000 of external funding during a period of two years. Unfortunately, things changed when a new President of the campus was appointed, as he preferred to focus on teaching only. This made the members of the group lose motivation so they started to work in other activities. In addition, two of the academics directly involved in the process were transferred to another campi, in fact due to the successes of the group.

While the aims of the three projects differ considerably, they can also be seen as quite similar. In all three a change was envisioned that was not necessary, but did inspire a number of people. It is not the case, for example, that life in a larger community is better than in a smaller one, nor that doing research is generally better than not doing so. In the case of migration it was assumed sufficiently beneficial, however, to spend effort in identifying what might support a preferred change. Part of the failure to reduce migration would seem to have been a lack of motivation among the addressees. In the case of the academics the opposite was the case: those who participated did so by choice and were rewarded for their own efforts, leading to even more motivation. Their wishes and intentions were part of the support that the members of the group provided mutually. Moreover, unlike the efforts in the case of migration the difference between the individual level and the group level was recognised: each person gained from his or her own activity, but was supported by the activities of all others – and not dominated by those of one or two members. In the case of the migration this type of 'double level' was missing: the model was developed without recognising the objectives of the contributing individuals. The third vignette also

demonstrated the need to remain outside other interactions for some time (e.g. political ones). External forces may stop a development.

Exploration

Although there are many definitions of research due to differences in the area of study, for instance in the various disciplines, people outside of such areas still appear able to identify which results are of high quality. This usually concerns the link to what is observed and how the observations are interpreted. In a more formal terminology one may say that research characteristically aims to find what set of statements can be linked uniquely to what set of observations. To be able to identify whether the link is unique, it is of course necessary to be able to identify the two sets. One such set may consist of observations on the members of a population (as in the second vignette), for instance their individual daily caloric ingest; another could be of numbers that indicate another individual physical characteristic, for instance their heads' diameters. The link that relates both might be that higher daily caloric ingest matches numerically with the size of the heads. However, this is not easy to prove as other similar relations can be found. This type of property makes it possible to criticise, even from the outside, when observations on old skulls are linked to statements about early humans' alimentation. The link is taken to be of low quality when it proves impossible to distinguish between substantially different statements. This appears to hold for the results of most if not all types of research. Research thus may be considered the realisation of the plan to find high-quality links that can be used as resources to action. Such links do not depend on the action that they are expected to support. They are intended to provide information to whatever action is intended. In this sense, research is not just about developing models, but on building theory.

Doing research implies the question when it does not support finding a high quality link. This is the case, as follows from the above, when neither type of set (either of observations or statements) can be identified. This may be the case when the set of statements refers to intentions or objectives, i.e. to the future-oriented part of human experience. These do not easily link to well-defined observations, as the third vignette demonstrates (the research group inside the university). Individuals often change what they report to be their intentions. The same obstacle may arise when the set of observations proves difficult to identify. In the second vignette (Mineral de la Luz) this considered what the set of observations of the village consisted of. Both types of difficulties suggest that research may still be seen as a search for the unique link between two types of set if its notion is modified. To do so one may realise that this implies solving for one unknown given two knowns. Instead of searching for a unique link between two sets that are given independent of the link, one thus

my search for a set given a second set and a link. In this case the search is equivalent to the construction of that set.

If the unknown set is the one that combines the individual emotions and preferences, the new world is that it implies that these have to be modified without the influence of an authority. One way to do so is to have two or more individuals interacting, for example as partners in a research project (third vignette). Having the other individual to contribute requires that one modifies one's own emotions and preferences. In other words, modifying emotions is possible if somebody else is willing to do the same. An instance of this procedure is presented in the following vignette 4.

Vignette 4 – Making friends with windmills

Lakshmi et al. (2015) describe the development of a community that started in 2006 in a Nottinghamshire village. The villagers were able to manage their (varying) preferences and purposes in order to create collective resources through a particular procedure. First step of this procedure was to bring people together (two users of the bus stop in this particular case). Second step was to invite other individuals to consider each other as possible members of an interaction (a party). Third step involved interactions initiation (additional collective activities that attract potential members were organized). Finally, these interactions were strengthened and improved (some activities were formalized). By following these steps, the collective were able to organize themselves and build a windmill (i.e. wind turbine). Additional activities have been developed from this original project and the structure for interacting continues in place.

This procedure can be seen as a form of research. First step, putting people together can be seen as the construction of a set of reported observations or data (axiom 1 of traditional research). Second step, to create initial links, can be related to the selection of sentences (axiom 2). Third step concerning attractive activities, involves the mapping of the set and the sentences (axiom 3). Finally, to strengthen and improved interactions, concerns the increase of the quality of the mapping (axiom 4). What Lakshmi et al. (2015) show is an alternative research approach that satisfies the same axioms of traditional research; they belong to the same class. Both cases involve an improvement process: traditional research leads to knowledge as a resource to any action, the alternative offered encourages the development of interactions that help construct resources to individual actions.

However, something that is worth to consider is the potential use of this form of research to study aspects such as the role that micro-businesses may play in the increase of territorial

capital – i.e. regional development. Lakshmi et al. (2015) suggest that the procedure seems able to develop interactions that build and make available territorial assets of economic, cultural, social and environmental nature. What needs to be tested is if this procedure ensures the potential development of places. The challenge on ensuring development suggests, first of all, the need of a shared understanding of what development involves. As we said before, in terms of traditional research this implies identifying two sets of observations: the current/present state and the desired/future state. It is through these specifications that links between both states can be drawn. However, as we also discussed above, if following traditional research, one of the sets, the desired /future state, will only be built by means of authority (Arrow, 1950). This has no problems in itself, but losses potential contributions from micro-businesses.

The alternative approach suggests a way of doing research that involves one set of observations, the micro-businesses, and a procedure to link these, the procedure to build and develop stronger interactions, in order to arrive to the desired/future state, where additional resources are freely available. We must stop one moment here in order to clarify that this state is involves individuals preferences and expectations, and is achievable by means of a 'fair' procedure; one where each member inside the collective will have the opportunity to fulfil his/her own expectations.

This approach suggests hence that there is no need for a 'central' authority nor to share unique objectives to achieve an increase in terms of territorial capital. An example of this is provided in a fifth vignette.

Vignette 5 – 'Tertulia' (research seminars at the University of Lincoln)
In 1996 the University of Lincolnshire and Humberside was founded. Since their origins academics from the then School of Management and Law ran a seminar/workshop that involved an active PhD students' community. As the university has gone into many different organisational changes, few of the original activities remain the same. One of them is this seminar. It involves the participation of a group of researchers, from very experienced professors to early PhD students, all of them interested in exploring different notions of what research is about. In particular, the focus involves to do research on aspects of life where it is difficult (maybe impossible) to identify sets of observations; for instance, of people involved (stakeholders) or about their emotions and preferences, and how to linked both of them.

When reflecting on the collective performance inside this seminar group we may identify that different topics have come and go. Approaches, examples, projects, reports and papers have been discussed, through an open process of co-evolution or learning, whichever is the preference to describe it. Its name has also changed from a 'research seminar' that took place in a weekly basis, to a fortnightly 'tertulia' – *tertulia* meaning a gathering of people that meets to talk. This activity has also changed in terms of its official position inside the PhD training program. In its origin, PhD students were expected to participate, but currently the activity has no official recognition anymore. So what remains constant? If neither the people involved (even though some of them have been there forever) nor particular topics and formats are part of a stable set of observations, what makes this activity identifiable by their participants? Where is the link between participants and their rationale behind their participation, if any? Why does it continue?

We may try to follow the research procedures presented in the vignettes 1, 2 or 3 to inquire about the previous questions. In the first case, we could develop sets of observations that link people with their predisposition to participate in the *tertulia* – for instance, by providing scales that present pre-defined set of responses associated to numbers, such as in the Likert scale. However, this does not provide any information about what can be done to improve the quality of resources collectively built. The second case, involves identifying areas of stability and to support them in such a way that a better collective performance is achieved. But as previously indicated there are no such stable sets of observations. At the end of the day any of the two would work if an authoritative figure forces people to accept (allegedly) beneficial collective aims (Arrow, 1950). Resistance to change comes then to the foreground.

The third case suggests a possible way to identify interactions that a) support what we want and is not opposed by others, and b) involves a circular process where what others want helps us to achieve what we want – and vice versa. However, the difference between case 3 and the *tertulia* is that the latter has been able to run outside other interactions (i.e. others' political agendas outside the participants), making it more resilient to external disturbances. This procedure of increasing collective resources, in particular knowledge, has found resonance in different atmospheres in the past. Examples of such gatherings can be found in Vienna with their 'Wiener Kaffeehaus' (Viennese coffee house), in the German 'Stammtisch' (the "regulars' table") and the French 'Salons'.

The cases about the windmill and the *tertulia* indicate that in order to do research that conducts toward sustainable collaboration and coordination between different people, we

need to develop interactions based on two main principles: a) to put people together and b) to develop a procedure that keeps them together. Practical examples of the first principle has been implemented before; for instance by conducting 'propensity exercises' (Rapoport, 1988). These involve identifying activities that increase individuals' participation. A good example of how to do this can be recognised in the case of the community and the windmill. The second principle explores ways to reduce defection (Ostrom, 2009). This involves rules that regulate interactions – e.g. 'tit-for-tat' strategies like being generous but not silly, to be forgiving and not envious (Axelrod, 1984). An instance of this can be identified in vignette 5 (Tertulia).

Practical implications on territorial capital and micro-businesses contributions to it
Concerning cases of vignettes 1 and 2, similar strategies for developing collective resources in a scientific manner have been designed. For instance, Camagni (2008) proposes to use the concept of 'territorial capital', which is defined by Perucca (2014) as "a system of territorial assets of economic, cultural, social and environmental nature that ensures the development potential of places" (p. 537). This concept aims at recognising possible interactions between factors of different nature that may contribute to economic growth. In this context, Landabaso (2006) links policy support to regional networks as an instrument to increase innovation and, hence, improve regional economic performance. Capello et al. (2009) discuss links between collective learning, mutual understanding, reciprocal trust, and social commitment in determining long-run regional economic performance. Camagni (2009) links 'rivalry' (public, private and intermediate goods) and 'materiality' (tangible, intangible and intermediate goods) for providing a preliminary taxonomy on various components of territorial capital – for instance, human, relational and social capital; public goods and resources, and proprietary and cooperation networks, among others. However, none of these approaches is able to inform at the two levels identified before. First, they do not consider individuals' heuristics. Second they do not take into account the way people link their plans to those of others. In summary, they do not consider the role of micro-businesses in regional development. As a consequence, these approaches do not provide any set of observations at such level of analysis.

Examples of particular procedures for collective learning have been previously developed and widely accepted. For instance, the 'Chatham House Rule' was devised in 1927 to safeguard and provide anonymity to speakers, and to encourage openness and the sharing of information: "When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed" (Chatham House,

2015). But this kind of rule does not capture the principles identified in vignettes 4 and 5. It does not focus on a long-term strategy; it does not aim at creating nor maintaining collective resources, as these dissipate as soon as the meeting ends.

To implement the alternative research procedure in the development of territorial capital, we need to extend our understanding of research. Rather than looking at unique links between two sets of observations, we propose to collect a set of people (the potential community) and build what links them (a project) in order to create a second set of observations (additional collective resources). As we discussed before, this approach involves four steps: (a) Putting people together by means of propensity exercises; (b) create initial links, by means of people engagement; (c) increase the variety through new internally-defined attractive activities, and (d), strengthen and improve interactions, based on safeguard protocols.

The main consequence of this approach involves an extension in the focus of potential funders – i.e. government, financial institutions. In addition to the building of physical resources, useful to provide spaces where people may meet and find some of the resources they need; but also built with the expectation that these will be seen as useful resources to them; such funders should look at how to create and maintain interactions. This approach suggests practical ways for developing the currently most elusive dimensions of territorial capital; resources concerning social, relational and human capital, and cooperation networks. Practical examples of this were shown in vignettes 4 and 5, and can be explored more in detail in Lakshmi et al. (2015).

Conclusion

Throughout this paper we recognised that entrepreneurs are able to change the world in their own benefit, and maybe of others. We also identified limitations to collective improvement through entrepreneurial activities as no free knowledge is developed. Consequently, we target this paper towards a reflection on why research is not always a sure way to be informed about the world and, hence, it is unable to reduce one's mistakes. We show different ways to conduct traditional research, and how this research may become of collective benefit. We indicate through three vignettes the advantages and limitations of such approach. In vignette 1, on how to reduce migration in Jaral de Progreso, we illustrate that even though we may construct models with acceptable quality in that context, the results in reducing migration proved to be disappointing, because there were no unique links between both sets observations – (a) people involved in the investigation and (b) migrants. Vignette 2 discusses a similar situation where there was an intention of reducing migration in Mineral de la Luz. In this situation results suggested a failure because individual differences

were not addressed. Research was not able to contribute on building agreement, trust or commitment. Vignette 3 introduces a situation where people contributed actively in the production of the collective. Better outcomes were achieved but were ephemeral. In this situation both levels, individual and group, were recognised: personal activities were a source of improvement for individuals who conducted them and for the other member inside the research group. The main limitation identified in vignette 3 was the need to remain outside other interactions (e.g. political ones) as external forces stopped their collective development.

An alternative research procedure is provided and illustrated in vignette 4, by means of a community in Nottinghamshire which were able to build a collective resource, a wind generator. It is also recognised in vignette 5, where a long-term activity shows that there is no need for central authority or shared aims in order to keep a collective together and become more effective (Vilalta-Perdomo, 2010). We proved that this procedure is part of the same family as traditional research shown in vignettes 1, 2 and 3; but goes beyond. Vignettes 4 and 5 show that theories on individual improvement through collective interactions can be built, rather than just models for particular use.

Finally, practical implications in the building and maintenance of some of the collective resources included in territorial capital are identified. In addition to the traditional economists' approach of understanding territorial capital (Camagni 2008 & 2009; Capello et al. 2009; Landabaso, 2006; Perucca, 2014), this paper identifies an alternative research procedure that suggests how to develop and maintain elusive dimensions of territorial capital: such as social, relational and human capital, and cooperation networks.

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