

BRICOLAGE AND GROWTH IN SOCIAL ENTREPRENEURSHIP ORGANISATIONS

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# **Bricolage and growth in social entrepreneurship organisations**

This paper explores the role of bricolage in the growth of social entrepreneurship organisations (SEOs). Building on the premises that (1) bricolage is based on the resources at hand and the subjective perspectives that individuals have of these resources, and (2) the characteristics of the top management team (TMT) are an indicator of the resources they make available to the organisation and their ability to put different perspectives into play to interpret resource environments, we seek to determine which configurations of resource endowment, autonomy in the use of resources, TMT diversity and bricolage promote organisational growth. Using a fuzzy-set theoretical technique (fsQCA), we show that the effect of bricolage on organisational growth is contingent on the availability of resources, the degree of autonomy in using these resources and TMT diversity in organisational tenure. Our findings also indicate that TMT gender diversity is not a relevant condition to the growth of SEOs that use bricolage and that TMTs incorporating members with differing levels of previous experience in for-profit organisations exert a negative impact on organisational growth.

**Key words:** bricolage, TMT diversity, social entrepreneurship, organisational growth.

## **1. Introduction**

Most social entrepreneurship organisations (SEOs) have difficulty acquiring the resources they need to grow (Austin, Stevenson, and Wei-Skillern 2006; Kickul, Griffiths, and Gundry 2010; Desa 2008). This situation leads them to search for alternative ways to obtain the necessary resources and one option often adopted in this respect is that of bricolage (Desa and Basu 2013; Desa 2008), or “making do with what is at hand”, using resources not valued by other actors, finding new uses for one’s own resources and recombining resources in an innovative way (Baker and Nelson 2005; Linna 2013). The concept of bricolage has captured the interest of entrepreneurship scholars, particularly in the field of social entrepreneurship, due to its potential to explain how firms confront resource restrictions in order to respond to environmental challenges, to take advantage of opportunities, to innovate and to grow in spite of these limitations (Senyard et al. 2014; Baker, Pollock, and Sapienza 2013; Di Domenico, Haugh, and Tracey 2010; Baker and Nelson 2005).

While there is a general consensus that SEOs frequently respond to adversity with bricolage, some studies suggest that this approach is also taken in contexts of non-scarcity, to

support organisations' renewal and innovation (Desa and Basu 2013). Therefore, the following questions arise. Might bricolage also constitute a path towards organisational growth, rather than merely providing a form of organisational resilience? How does an SEO's resource endowment impact on the growth outcomes of bricolage? What other factors could explain the adoption of bricolage and its growth outcomes?

The goal of this paper is to obtain a better understanding of the relationship between bricolage and SEO growth, and to explore the role played by resource endowment and autonomy and TMT characteristics in this relationship. We suggest that these three factors may affect the relationship between bricolage and organisational growth for the following reasons. First, some SEOs engage in bricolage as a form of organisational renewal and innovation, not because they lack access to conventional resources. The results for organisational growth in this situation may differ from those achieved using bricolage out of necessity (Desa and Basu 2013). Second, many SEOs combine internally-generated income with external donations, a strategy that imposes numerous limitations on their capacity to make discretionary use of resources in the bricolage process (Austin, Stevenson, and Wei-Skillern 2006; Dorado 2006). Finally, the characteristics of top management teams (TMTs), particularly their diversity, are known to influence strategic decision-making processes, especially the extent to which they are creative and innovative, due to the diversity of information and perspectives that come into play in team decision processes (Wiersema and Bantel 1992). Since bricolage involves improvisation and creativity based on the idiosyncratic perspectives of individuals concerning the resources at hand (Kickul, Griffiths, and Gundry 2010; Baker and Nelson 2005), the characteristics of the TMT are relevant to the role played by bricolage in organisational growth. These characteristics influence the types of resources and perspectives on resources put into play, and decision makers' capacity to recombine and re-create resources.

Therefore, we propose that the relationship between bricolage and organisational growth is influenced by levels of resource endowment, autonomy in the use of resources and diversity in the composition of the TMT. To test our hypotheses, we examine a sample of 89 Mexican SEOs, a context scarcely explored in previous research on SEOs, and conduct a qualitative comparative analysis using a fuzzy-sets technique (fsQCA). This technique bridges the gap between qualitative and quantitative approaches, since it helps to identify in quantitative samples the different causal configurations of independent variables that explain an outcome—in our case, organisational growth (Fiss 2011; Ragin, 2008). We find several ways in which bricolage is associated with organisational growth. In most cases, bricolage

leads to organisational growth in the presence of high levels of resources and/or autonomy in resource use. Contrary to our expectations, diversity in TMT composition appears to have a negative effect on the growth of organisations that employ high levels of bricolage, in almost all scenarios of resources and autonomy in their use.

These findings contribute to the literatures of both social entrepreneurship and bricolage. From the social entrepreneurship perspective, we offer new insights into some of the mechanisms by which SEOs can grow. In resource-rich SEOs, re-purposing resources and combining them creatively aids in organisational growth. In this case, bricolage seems to be a practice that helps to optimise resources as long as TMTs are homogeneous in terms of previous experience in for-profit businesses or heterogeneous in terms of organisational tenure. We show that the role of bricolage in organisational growth does not depend on intensity of use, but rather on the configurations of resources and TMT composition. When organisations possess the resources they need and bricolage is performed out of choice, it helps organisations to grow. When bricolage is done out of necessity, it may help organisations to respond to adversity, but it does not lead to growth. We also hypothesise and demonstrate that different types of diversity in TMT composition are a relevant factor conditioning the role of bricolage in organisational growth.

The rest of this study is structured as follows. After this introduction, we explain the conceptual background of bricolage, review the relevant literature and present the study hypotheses. We then describe the methods used to perform the empirical analysis and present the results obtained. Finally, we discuss these results, explain the conclusions drawn from them and acknowledge the study's limitations and implications.

## **2. Conceptual background**

The question of how to mobilise resources is one of crucial importance for all entrepreneurial organisations (Desa and Basu 2013; Villanueva, Van de Ven, and Sapienza 2012). In contrast to traditional businesses, SEOs face additional problems due to their social mission which, on the one hand, requires constant investment to address systemic social problems (Austin, Stevenson, and Wei-Skillern 2006) and, on the other, imposes restrictions on their access to different sources of resources (Desa and Basu 2013). These restrictions are: (1) limited access to traditional capital markets (many SEOs are not for profit, and those that are for profit subordinate it to their social mission, which reduces incentives for potential investors) and low degree of development of specific capital markets (Lumpkin et al. 2013); (2) lack of salary competitiveness, which can lead to difficulty in attracting highly qualified human

resources (Austin, Stevenson, and Wei-Skillern 2006; Dorado 2006); (3) inability to use price mechanisms to expand product/service margins, since their business models are often based on attending customers at the bottom of the pyramid, who cannot pay higher prices (Alter 2006), (4) the location of many customers in contexts of poverty (Kickul, Griffiths, and Gundry 2010; Desa 2008).

To overcome these constraints, SEOs have various alternatives. They can take an effectual approach by starting with the available resources and involving an external partner to co-create solutions, in response to an uncertain and hostile environment (Sarasvathy, 2001); they can change the structure of their income and resort to public and private funds to finance their activity (although this imposes numerous limitations on the use they can make of these resources) (Doherty, Haugh, and Lyon 2014); or they can attempt to generate resources internally with what is at hand, find new uses for resources that are generally ignored or combine these resources in an innovative way (Baker and Nelson 2005; Baker 2007; Desa and Basu 2013).

This latter alternative embodies the concept of bricolage, first developed by Lévi-Strauss (1967) and later translated to the field of entrepreneurship by Baker and Nelson (2005) to explain how entrepreneurs address resource limitations. This concept is the main focus of our study. Baker and Nelson (2005) define bricolage as the behaviour of “making do with the resources at hand” and refusing to give up in the face of challenges that demand new resources. For them, how entrepreneurs face their resource limitations is as important in explaining the performance achieved as the limitations themselves. The concept of bricolage was developed in the framework of the resource-based view (Penrose 1959; Wernerfelt 1984), according to which organisations’ idiosyncrasies in how they interpret and use their resource environments can explain the differences in the performance attained.

Bricolage involves reinterpreting organisations’ environments, paying attention to the resources that others dismiss and putting these back into play, creating something from nothing (Baker and Nelson 2005; Linna 2013; Fisher 2012). In bricolage, different types of resources – material, human and cultural – come into play (Mair and Martí 2009). Interpreting and combining resources not only helps firms to create new means of responding to challenges but can also help identify new opportunities to create value (Baker and Nelson 2005; Di Domenico, Haugh, and Tracey 2010; Linna 2013).

Bricolage has been related to various positive results of SEOs. In a sample of Kenyan entrepreneurs who design low-cost energy solutions for those at the bottom of the pyramid, Linna (2013) finds that different kinds of bricolage encourage different phases of the

innovation process, Mair and Martí (2009) show how a Bangladeshi NGO performs bricolage with different cultural resources to achieve the social and economic inclusion of women in a situation of extreme poverty, and Desa (2011) finds that bricolage helps SEOs to mobilise resources and establish legitimacy in environments beset by uncertainty and weak formal institutions.

Among organisations located in particularly hostile environments, bricolage may constitute the only means of reducing their disadvantage and of achieving key resources (Steffens and Senyard 2009). Senyard, Baker and Davidsson (2009) reinforce this idea, showing that bricolage is positively related to the performance of newly created firms – the firms with the greatest resource limitations – but not to the performance of already established organisations.

On the other hand, some studies observe that bricolage can also have negative consequences. Mair and Martí (2009) argue that the bricolage used by a Bangladeshi NGO with ideas and beliefs deeply rooted in the society helped the organisation to achieve its goals of inclusion but could also have had negative consequences in perpetuating an image of women as weak and helpless and thus failing to empower them. For organisational growth in particular, Baker and Nelson (2005) find that the use of bricolage can create a pattern of behaviour that reinforces bricolage and disperses the effort toward multiple projects, preventing the organisation from growing. They call this parallel bricolage. The temporary use of bricolage seems, however, to encourage growth, as it helps firms to achieve the resources they need. Baker and Nelson call this selective bricolage.

In summary, prior evidence on the role of bricolage in organisational growth highlights the influence of various factors related to the characteristics of the organisation and its environment. Building on these prior arguments and evidence on bricolage and TMTs, this study considers the hypothesis that an organisation's resource endowment, its degree of autonomy in resource use, and TMT diversity are key conditions for the development of bricolage in SEOs and affect the relationship between bricolage and organisational growth.

The model used to analyse the role of bricolage in SEO growth is developed from the three main aspects of bricolage identified by Baker and Nelson (2005): making do, relying on resources at hand and recombining resources. Making do involves orientation to action and the rejection of resource limitations. Resources at hand are those that the organisation controls or can acquire more cheaply than standard resources. The recombination of resources refers to the unique perspectives of the people who make decisions when conceptualising and employing the resources at hand. In consequence, an organisation's adoption of bricolage

depends not only on the resources available to it but also on the activities and cognitive abilities of the decision makers involved. Both of these factors are relevant to the role played by bricolage in SEO growth.

Resource availability determines whether bricolage is used to overcome scarcity or to renew and innovate, and the results obtained, in terms of organisational growth, may differ in each situation (Desa and Basu 2013). The discretionary use of resources, an option that many SEOs do not have, since they combine internally-generated income with external donations (Austin, Stevenson, and Wei-Skillern 2006; Dorado 2006), affects the organisation's capacity to combine and re-define resources. Furthermore, the characteristics of the TMT, in particular their level of diversity, can determine strategic decision making and hence the results achieved by the organisation (Hambrick and Mason 1984). The diversity of the TMT members may be related to that of the information and perspectives they put into play and to the degree of creativity and innovation in decision making (Wiersema and Bantel 1992). TMT diversity is relevant in terms of bricolage because the latter calls for improvisation and creativity and relies on the idiosyncratic perspectives taken by individuals of the resources within their reach (Kickul, Griffiths, and Gundry 2010; Baker and Nelson 2005).

In the next section, we consider whether the level of resources available to an organisation (the technical, human, and financial resources to undertake new projects), its autonomy in using them (i.e., its degree of self-financing) and the characteristics of the TMT (their gender diversity, tenure in the organisation and prior experience in for-profit organisations) might affect the outcome of bricolage in terms of organisational growth.

### **3. Hypotheses**

#### ***3.1. Resources, autonomy, bricolage and organisational growth***

Studies in the field of social entrepreneurship have shown that bricolage is a widespread practice among SEOs, whether they act in hostile contexts marked by scarcity of resources or in more generous ones (Desa and Basu 2013). In hostile contexts, bricolage is motivated by the need to obtain resources that are not otherwise accessible in order to cope with challenges (necessity bricolage). In munificent contexts, bricolage is a voluntary choice whereby an organisation attempts to stimulate strategic renewal, which can lead to the identification of new opportunities (ideational bricolage). In short, resource availability may be related to necessity and/or ideational bricolage, both of which have different impacts on organisational growth.

SEOs represent a specific type of organisation in terms of origin of resources and degree of autonomy in using these resources. Unlike traditional entrepreneurial organisations, many SEOs do not attempt to self-finance solely from the income from their economic activity (Austin, Stevenson, and Wei-Skillern 2006; Dorado 2006). To cover operating costs, they combine the income from economic activity with different external sources of financial resources, such as public calls for projects or donations. These external financing sources tend to impose numerous limitations on the use of financing and the resources acquired with the financing (Austin, Stevenson, and Wei-Skillern 2006; Dorado 2006). Autonomy in the use of resources is a fundamental element in bricolage, since it is based on finding a different use for existing resources or combining them in different ways. The extent to which an organisation self-finances through the economic activity it performs enables us to approximate an organisation’s degree of autonomy in using its resources and is a key factor in the development of bricolage. Taking these two variables into account – availability of resources and autonomy in their use – we outline four scenarios in which bricolage takes place in an SEO and suggest that these scenarios involve different paths to organisational growth (Table 1).

Table 1. Resource endowment, autonomy and bricolage

Availability of resources		Autonomy	
		Yes	No
		High	Ideational bricolage
Low	Necessity bricolage	Limited bricolage	

When the SEO has high availability of resources and considerable autonomy in using them, it can engage in bricolage by choice, taking advantage of the resources at hand to renew the organisation, use resources more efficiently or innovate. In this situation, the organisation would practice what Desa and Basu (2013) call ideational bricolage, that which is “driven by the recognition of perceived advantages, rather than by necessity” (p. 18). In this situation, bricolage can lead to the introduction of innovations such as taking a different approach to the social problems addressed by the SEO; this could give rise to a less costly way of intervening and thus broaden the organisation’s coverage to more beneficiaries or improve its products/services. Bricolage can also facilitate the identification of new opportunities to generate resources (for example, by exploiting under-used spaces or applying the knowledge and skills possessed to new work areas). When bricolage takes place in an SEO that has



resources for developing new projects and enjoys considerable autonomy in its activity, this can stimulate organisational growth, by extracting value from under-exploited resources. Moreover, according to Desa and Basu (2013), the competencies derived from ideational bricolage are likely to be as good as, if not better than, those obtained from standard resources. Therefore, we propose the following hypothesis:

*H1a: Organisations with a high level of resources, a high degree of autonomy and a high level of bricolage achieve organisational growth.*

When an SEO has scarce resources and enjoys autonomy in its use of existing resources, it is prompted to engage in bricolage out of necessity. A high degree of autonomy allows the organisation to explore different opportunities for combining and recombining resources until it finds a satisfactory solution. Desa and Basu (2013) and Duymedjian and Ruling (2012) highlight the satisfying nature of the necessity bricolage process. In this situation, SEOs would engage in bricolage to respond to specific problems, not necessarily to search for more innovative/efficient solutions than existing ones. Identifying opportunities for growth would not be a priority, and these opportunities would be limited given the lack of resources.

Desa and Basu (2013) indicate that SEOs that engage in necessity bricolage tend to do so at a high level. Such a situation is likely to set the organisation on the path of parallel bricolage indicated by Baker and Nelson (2005), in which growth is limited. Baker and Nelson (2005) find that bricolage applied repeatedly in a context of scarcity can create an organisational identity based on the mentality of scarcity, which disperses efforts to promote multiple projects and isolates the firm from opportunities for growth. In view of these considerations, we propose:

*H1b: Organisations with a low level of resources, a high degree of autonomy and a high level of bricolage do not experience organisational growth.*

When an SEO has resources available for new projects but lacks autonomy in making use of these resources, its potential for bricolage is more limited. Such would be the case of a resource-rich SEO that received most of its financial resources from donors and funders who impose limits on the use made of the funds provided.

In this situation, internal options for combining and redefining resources are more limited, leading CEOs to engage selectively in bricolage to solve specific problems or to respond to specific opportunities. As most resources are reserved for predefined activities, extensive involvement in bricolage would have to be conducted with the remaining resources, that is, in a context of scarcity. As explained above, a high degree of bricolage in a context of resource scarcity would be negatively associated with organisational growth.

Furthermore, as Baker and Nelson (2005) indicate, firms' selective use of bricolage to develop specific projects or solve particular problems supports, or even drives organisational growth, because by doing so they avoid becoming "constrained by the demands of embedded ties and an organizational identity defined by bricolage" (p. 349). Additionally, the availability of resources reduces the need to acquire them externally or to search for alternative sources and directly facilitates organisational growth by providing the means for developing organisational projects.

To sum up, when resource endowment is high and autonomy is low, a low level of bricolage favours organisational growth, whereas a high level inhibits it. Therefore, we propose the following hypothesis:

*H1c: Organisations with a high level of resources, a low degree of autonomy and a high level of bricolage do not experience organisational growth.*

Finally, in a situation of scarce resources and limited autonomy in using them, the capacity of organisations to engage successfully in bricolage would be limited. Lack of resources would drive necessity bricolage, but limited autonomy would restrict the possibility of exploring alternative use of these resources. In such situations, committing to a high degree of bricolage would have negative consequences for organisational growth because it would add the unfavourable circumstance of necessity bricolage to that of limited autonomy in resource use. Accordingly, we propose the following hypothesis:

*H1d: Organisations with a low level of resources, a low degree of autonomy and a high level of bricolage do not experience organisational growth.*

### **3.2. TMT diversity, bricolage and organisational growth**

The concept of bricolage is based on the assumption that organisations are idiosyncratic in the way they interpret and use their resource environments. The availability, acquisition and duration of productive resources is determined by decisions made by the TMT (Penrose 1959). Various studies indicate that TMT characteristics strongly influence strategic decision making and business results (Qian, Cao, and Takeuchi 2013; Nielsen and Nielsen 2013; Kor 2006; Goll and Rasheed 2005; Hambrick and Mason 1984). TMT characteristics are an indicator of the resources made available to the organisation and management's ability to put different perspectives into play to interpret its resource environment (Senyard 2014). From this perspective, the degree of diversity among the TMT should be taken into account in analysing the potential offered by bricolage to develop and expand the resources available to the organisation. In this respect, Senyard (2014) reported that some characteristics of TMTs, such as their size and functional diversity, promote the relation between bricolage and increased sales by providing a greater variety of resources for bricolage. Similarly, Hmieleski, Corbett, and Baron (2013) found that the relation between improvisatory behaviours like bricolage and organisational results depends on the personal attitudes of the management team.

TMT diversity indicates the extent to which the attributes of the members of a work unit or organisation are heterogeneously distributed (Simons, Pelled, and Smith 1999). In other words, diversity can be viewed as the sum of the differences in composition among a group of individuals (Kearney, Gebert, and Voelpel 2009). The diversity of characteristics such as sex, race, nationality, education level, age, organisational tenure and prior experience is related to managers' cognitive capacities, attitudes and values, and is believed to model managers' behaviour (Harrison and Klein 2007; Hambrick 2007; Hambrick and Mason 1984). These personal characteristics determine how managers collect and filter information from their environment (Finkelstein and Hambrick 1996), interpret this information (Dutton and Jackson 1987) and act accordingly (Hambrick 2007).

Many authors affirm that TMT diversity in terms of gender, training, organisational tenure and prior experience affects various aspects of organisational results, including performance (Goll and Rasheed 2005; Kor 2006; Nielsen and Nielsen 2013), strategy (Escribá-Esteve, Sánchez-Peinado, and Sánchez-Peinado 2009; Finkelstein and Hambrick 1996), innovation (Alexiev et al., 2010; Talke, Salomo, and Rost 2010; Qian, Cao, and Takeuchi 2013) and the allocation and distribution of resources (Hambrick 2007). Our study focuses on three kinds of TMT diversity and analyses their role in bricolage and

organisational growth: gender diversity, organisational tenure and prior experience in for-profit firms.

Gender diversity provides different kinds of ability, knowledge and ideas that benefit the organisation (Krishnan and Park 2005; Ruigrok, Peck, and Tacheva 2007; Torchia, Calabrò, and Huse 2011). These benefits are especially relevant to engaging in bricolage, as they provide more possibilities for combining resources in new ways. Diversity of knowledge and abilities can generate more solutions and more effective ways of solving the complex, ambiguous problems commonly faced by CEOs. Torchia, Calabrò, and Huse (2011) showed that gender diversity in TMTs generates benefits for the organisation, since heterogeneity leads to greater interaction, encouraging the generation of more creative, higher-quality solutions than in homogeneous groups. For Miller and Triana (2009), gender diversity in the TMT gives the firm different forms of human and social capital, helping management allocate resources more efficiently and facilitating the detection of new opportunities. These actions strengthen the relation between bricolage and growth, by making it easier to put new projects into action.

Furthermore, men and women have different socialisation experiences, in areas such as professional experience and affiliation with social networks, which can shape different strategic options (Bandura and Bussey 2004; Manolova et al. 2007). Such diversity increases the possibilities for generating different strategies through bricolage that benefit the organisation's functioning. In sum, gender diversity encourages the team to be more creative and adaptable, since individuals with different socialisation experiences and professional pathways can generate diverse perspectives on the resources available and ways of using them, thereby strengthening the relation between bricolage and growth.

Diversity in the organisational tenure of TMT members may be related to diversity of the information and perspectives put into play and to creative, innovative decision making (Wiersema and Bantel 1992). Diversity of organisational tenure is indicative of the TMT members' experience and knowledge of the organisation. Greater diversity in this respect means that the team is composed both of managers with long experience in the organisation and of those who have joined it more recently. Good knowledge of the organisation and the resources within its reach is crucial to bricolage (Desa 2008; Baker and Nelson 2005), because this prior experience is essential to conceiving new ways of using and combining the resources available. On the other hand, it has been argued that veteran members of the TMT can fall into strategic inertia, offering greater resistance to change and narrower perspectives on possible new directions for the organisation (Goll and Rasheed 2005; Hambrick and

Mason 1984; Pfeffer 1983). As a result, they may discern fewer applications for the resources available, while newer members could provide a fresh outlook, visualising new opportunities to improve the organisation's performance through bricolage.

In short, diversity in organisational tenure among the TMT can have a positive impact on the relation between bricolage and growth, by combining older members' knowledge of the organisation's resources with newer members' fresh perspectives. In consequence, the range of outlooks is expanded and the organisation is better equipped to make use of them to overcome problems and to generate new opportunities. In this respect, Knight et al. (1999) suggest that diversity of experience among TMT members implies the existence of differences in their mental models. These differences can lead TMT members to generate different points of view on how to use the organisation's resources, providing a richer context in which to respond to the challenges of the environment and to improve organisational performance through bricolage.

TMT diversity of prior experience with for-profit firms is especially relevant for SEOs. This diversity reflects the coexistence of different types of organisational logic (cognitive foundations and different values) within the same organisation: for-profit and non-profit (Doherty, Haugh, and Lyon 2014). From the perspective of bricolage, although this diversity may lead to conflicts in decision making (Batillana and Lee 2014; Batillana and Dorado 2010), it can also contribute to greater flexibility in the team's relation to different types of stakeholders and enable access to more diverse resources, which can favour the use of bricolage (Austin, Stevenson, and Wei-Skillern 2006; Baker, Miner, and Eesley 2003).

Some authors also affirm that managers' experience in other types of firms is linked to the generation of different perspectives and innovative ideas and to the capacity for a broader vision of how to use the firm's resources and capacities (Finkelstein and Hambrick 1990; Lee and Park 2006; Escribá-Esteve, Sánchez-Peinado, and Sánchez-Peinado 2009). Managers with extensive business experience can promote a form of logic seeking the efficient use of resources and the formalisation of processes, thus breaking the feedback among organisational practices that can impede growth. In this respect, too, Dorado (2006) argues that a major deficiency of SEOs is their lack of competence in business management, a competence that managers with experience in traditional firms could supply.

In sum, TMT diversity will provide the firm with relational capital (network contacts) as well as human capital (expertise, knowledge, skills and varied perspectives) essential for the successful management of a complex organisation (Díaz-Fernández, González-Rodríguez, and Pawlak 2014). Bantel and Jackson (1989) argue that teams with diverse abilities,

knowledge and perspectives make more innovative and higher-quality decisions than less diverse teams. Studies have shown find that TMT diversity has positive repercussions for organisational performance (Goll and Rasheed 2005; Kearney, Gebert, and Voelpel 2009; Nielsen and Nielsen 2013). In view of these considerations, we hypothesise that TMT diversity in gender, organisational tenure and prior experience in for-profit firms has a positive effect on all of the scenarios for resources and autonomy presented in the previous section, by providing access to more resources and to more diverse perspectives for bricolage.

*H2a: Gender diversity in the TMT positively influences the relationship between bricolage and organisational growth in all the resource scenarios considered.*

*H2b: Diversity of organisational tenure in the TMT positively influences the relationship between bricolage and organisational growth in all the resource scenarios considered.*

*H2c: Diversity of previous experience in for-profit organisations in the TMT positively influences the relationship between bricolage and organisational growth in all the resource scenarios considered.*

## **4. Methods**

### **4.1. Sample**

SEOs are defined as organisations that pursue social value creation by means of economic activity, independently of the presence or absence of the profit motive (Lumpkin et al. 2013; Seelos et al. 2011). We test our hypotheses on a sample of Mexican SEOs. Mexico provides a highly relevant context for analysis of social entrepreneurship initiatives and their contribution to social problem solving. In 2012, Mexico, with a population of over 112 million, registered 53.3 million people living in poverty, 11.5 million of whom were living in extreme poverty (INEGI 2012; CONEVAL 2013). According to reports from the OECD (2012), “infant mortality in Mexico is three times higher than that of the average in member countries, and illiteracy also exceeds this organisation’s average.” Mexico is the OECD country with the second highest rate of inequality: the poorest 10% of the population receives 1.3% of all income, while the richest 10% obtains nearly 36%.

In this context, numerous organisations have addressed problems related to poverty, sanitation and education. According to the Mexican Centre for Philanthropy (Centro Mexicano para la Filantropía [CEMEFI]), a private non-profit organisation to promote philanthropy among citizens and organisations in Mexico, there are over 12,000 registered private organisations whose main mission is to contribute to solving different social problems.

Their activities are highly varied and include social work, disaster aid, care of the environment, sports, the arts and culture, and activities to boost regional social and economic development.

To obtain the study sample, we created a single database of SEOs by gathering information from the following organisations, which offer prizes and awards for the work of SEOs in Mexico: ASHOKA Mexico, Tecnológico de Monterrey, UBS, Iniciativa Mexico and CEMEFI. We asked these organisations for access to the contact information of SEOs that entered their 2012 award competitions. From this information, we created a database of 994 SEOs. The organisations were chosen following two criteria: that their main mission was social and that they performed an entrepreneurial activity to self-finance at least part of their social mission.

The data were collected using a structured online questionnaire addressed to managers of these SEOs. Contact was by email, in a letter explaining the research goals and our commitment to using the data only anonymously and in aggregate form to ensure confidentiality. We received 113 completed questionnaires, giving a response rate of 11.3%. To ensure that the organisations could be compared to each other, we chose only organisations from the sample whose activity was to provide service directly to an end beneficiary and, among these, only those that had a TMT (composed of at least two members). The final sample contained 89 SEOs. We define the TMT as a set of people who make strategic decisions in the organisation (Collins and Clark 2003).

Of the SEOs composing our study sample, 32.2% had fewer than 10 employees, 50.6% had 10-50 employees, and the rest had 51-250 employees. With regard to their activities, since there is no standard classification of SEO activities, we looked for common patterns among those reported and grouped them into six categories based on sphere of action: health and nutrition, education, the development of rural communities, the production and commercialisation of other goods, social work and social consulting.

22.7% of the SEOs provided services and products related to health and nutrition, 35.2% worked in the education sector, 10.2% worked to develop rural communities, 10.2% produced and commercialised different kinds of goods, 15.9% performed social work and 5.7% provided social consulting. 12.5% had been in operation for up to 5 years, 21.6% for 5-10 years, and the rest for over 10 years. 88.6% were non-profit and 11.4% performed a for-profit activity.

Table 2. Characteristics of the TMT in the organisations surveyed

Size	Percentage	Gender	Percentage	Experience in for-profit firms	Percentage	Organisational Tenure	Percentage
2-4 members	57%	Women	54%	No experience	26.6%	Less than 1 year	2.5%
5-7 members	25%			Less than 1 year	4.1%	1-3 years	19.4%
8-10 members	18%	Men	46%	1-11 years	37%	4-7 years	26.1%
				Over 11 years	32.3%	8-11 years	21.3%
						Over 11 years	30.6%

For 17% of the SEOs surveyed, the main source of financial resources was the government, 43.2% received most of their financial resources from private entities, and the rest financed most of their activity from their own resources, obtained from the economic activity they performed. Table 2 shows the data on TMT composition and characteristics in our sample.

#### **4.2. Measurements**

The dependent variable (or outcome condition), organisational growth, was measured by calculating the arithmetic difference between current number of employees and number of employees three years ago. This increase was taken to indicate an overall increase in the organisation's activity, although we cannot specify whether this activity took place in the social or the economic domain. If we assume that these organisations are mission-driven, increased economic activity would lead to an increase in the resources available to fulfil their social mission. The main reasons for using this measure were that (1) we are not aware of an accepted measure of social impact growth that is readily applicable to SEOs with such diverse activities as those that conform our sample (Ruebottom 2011; Young 2006); (2) it represents a more objective yardstick of organisational growth than scales considering specific aspects of growth, where the risk of common method bias is higher.

Nevertheless, to minimise measure bias and to validate the results obtained, the same model was also applied using a subjective measure of organisational growth, namely increased economic activity (measured on a seven-point Likert scale composed of three items: growth in market share, income generated through economic activity and profit, where respondents were asked to indicate their degree of agreement with these items). The results of this analysis (available on demand from the authors) are explained in Section 4.3.3,



“Additional analyses”. The results of the reliability analyses for this scale are included in Appendix I.

The following independent variables, or predictor conditions, were considered. The Bricolage variable was measured using the only instrument proposed for this purpose (to our knowledge). Developed by Senyard, Baker and Davidsson (2009), this instrument uses eight items on a scale from 1 to 7 to evaluate the frequency with which the SEO resorts to bricolage to face different challenges and problems. Senyard et al. (2014) recently used the same scale to measure bricolage in resource-constrained new firms. Confirmatory factor analysis led us to eliminate two items from the original scale in order to ensure reliability. The results of the confirmatory factor and reliability analyses performed show that the resulting scale meets the requirements for validity and reliability. Appendix I shows the items used and the results of this analysis.

The ‘Own resources’ variable was measured on a Likert scale from 1 to 7 with three items that refer to the degree to which the organisation has financial, human and technological resources to develop new projects. As with the Bricolage variable, the confirmatory factor and reliability analyses performed show that the scale meets the requirements of validity and reliability. Appendix I shows the items used and the results of this analysis.

To measure autonomy in the use of resources, the organisations were asked to state their main source of income or financial resources. This was used to determine the ‘Self-financing’ variable, taking the value 1 if the main income source is the organisation’s own economic activity and 0 if the income is derived from the public administration or other private entities.

Three diversity indexes were constructed to measure TMT diversity, using the Blau index, which is calculated as  $1 - \sum_{i=1}^k (p_i)^2$  where  $p$  is the percentage of members (managers) in each  $i^{\text{th}}$  category of existing  $k$ s. According to Harrison and Klein (2007), the Blau index is the most common way of measuring diversity in a workgroup. Index values can vary from 0 to  $(k-1)/k$ . The higher the index value, the greater the degree of diversity in the TMT. An index with a value of 0 indicates a single category in one dimension of diversity, which suggests that the group is perfectly homogeneous. The gender diversity index used in the present study has two categories: male and female ( $k=2$ ), and the possible values range from 0 to 0.5. For organisational tenure diversity, there are five categories: less than 1 year, 1-3 years, 4-7 years, 8-11 years and more than 12 years ( $k=5$ ); the values of this index range from 0 to 0.8. For diversity of years of experience in for-profit organisations, there are the same

five categories: less than 1 year, 1-3 years, 4-7 years, 8-11 years, and more than 12 years (k=5).

### 4.3. Analysis and results

Table 3 shows the correlations, means and standard deviations obtained for all the study variables. The study hypotheses were tested using fsQCA, a technique for bridging the gap between qualitative and quantitative approaches in social science research (Ragin 2008a; Woodside and Zhang 2011), based on set theory and in which causal claims are developed by means of supersets and subsets (Ragin 2008a). This technique uses combinatorial logic and Boolean algebra to represent each case as combinations of conditions (i.e., independent variables, factors and antecedents) that may be necessary or sufficient to produce an outcome (i.e., dependent variable) (Ragin 2008b).

Table 3. Means, standard deviations and correlations.

	Mean	SD	1	2	3	4	5	6
1.Resource endowment	4.12	1.64	-					
2.Self-financing	0.39	0.49	-0.064	-				
3.Bricolage	5.78	1.05	0.433**	0.024	-			
4.TMT gender diversity	0.30	0.19	0.186	0.020	0.061	-		
5.TMT organisational tenure diversity	0.38	0.24	0.207	0.133	0.167	0.230*	-	
6.TMT for-profit experience diversity	0.41	0.23	-0.122	-0.019	-0.106	0.224*	0.251*	-
7. Growth	4.35	19.68	0.161	-0.149	0.109	-0.138	0.028	-0.236*

(\* p<0.05; \*\* p<0.01)

In contrast to conventional statistical techniques for studying symmetry relationships (i.e., linear relationships between variables, variable-oriented) (Ragin 2000), QCA explores asymmetric or multiple relationships and explains observed outcomes (Ragin, 2008b), in the understanding that real-life relationships tend to be asymmetrical rather than symmetrical (Woodside 2010). Moreover, while conventional statistical techniques consider the net influence of an independent variable on an outcome regardless of the levels of other variables and their different combinations (Ragin 2008a), fsQCA enables us to identify many different causal paths (i.e., combinations of conditions) that produce a certain outcome (Berg-Schlusser

et al. 2009). This technique is based on the notion that causal relations are frequently better understood in terms of set-theoretic relations than of correlations (Ragin 2008a; Ragin and Fiss 2008; Fiss 2011). It provides a better approach to understanding causality and is an attractive technique for organisational and management researchers, as recent studies have demonstrated (Fiss 2011; Crilly 2011; Cheng, Chang, and Li 2013; Bell, Filatotchev, and Aguilera 2014).

To sum up, FsQCA differs from classical statistical techniques in its use of set-theoretic vs. correlational connections, calibration vs. measurement, configurational conditions vs. independent variables, and causal complexity analysis vs. net effects analysis (Ragin 2008; Frambach et al. 2016). In regression and other variable-oriented approaches, each independent variable is held constant at its average across the study data to isolate the independent effect of that variable. Whereas these approaches conceal the ways factors may interact with each other to impact on the ultimate outcome (Kane et al. 2014), FsQCA allows us to overcome this limitation and identify the different combinations of conditions for the variables necessary to produce an outcome.

FsQCA uses qualitative (case-oriented) and quantitative (variable-oriented) techniques (Berg-Schlosser et al. 2009) to determine, in this case, the antecedents of organisational growth. It is effective in evaluating both the number and the complexity of alternative paths leading to a desired outcome (Ragin 2008a; Bell, Filatotchev, and Aguilera 2014). We now describe how the data were calibrated into crisp sets and fuzzy sets.

#### *4.3.1. Transforming data into fuzzy sets*

The fsQCA is a program that uses fuzzy set theory to determine what causal conditions may be necessary or sufficient to produce an outcome (Ragin 2009). Fuzzy sets are sets whose elements have degrees of belonging, in the interval between 0 (nonmembership) and 1 (full membership) (Ragin 2008b). To transform conventional variables into fuzzy membership scores, the researchers calibrate by core set theoretic principles (Ragin 2008a), specifying the values of an interval-scale variable that correspond to three qualitative breakpoints that structure a fuzzy set (Ragin 2009).

The first such breakpoint is the threshold for full membership (fuzzy score = 0.95), the second is the threshold for full nonmembership (fuzzy score = 0.05), and the third is the cross-over point (fuzzy score = 0.5). In this study, a Likert scale from 1 to 7 was used to measure the Bricolage and Resource endowment variables. The value 7 corresponds to full

membership, 4 to the cross-over point, and 1 to full nonmembership. Table 4 shows the calibration of the other variables used in this study.

Table 4. Data calibration

Original scale	Calibration of scale
	1= full membership
Self-financing	0.5= cross-over point
	0 = full nonmembership
TMT gender diversity	0.5= full membership
	0.25= cross-over point
	0 = full nonmembership
TMT organisational tenure diversity (current company)	0.8= full membership
	0.4 = cross-over point
	0 = full nonmembership
TMT experience in for-profit organisation diversity	0.8 = full membership
	0.41 = cross-over point
	0 = full nonmembership

We then used fsQCA's truth table function to generate the different combinations of conditions (bricolage, organisational resources, autonomy, gender diversity of the TMT, the diversity of its organisational tenure and of previous experience in a for-profit company) that are sufficient for a particular outcome to occur (organisational growth) (Ragin 2008a).

#### 4.3.2. Presentation of results

Once all the study data are calibrated, the truth table can be constructed. To do this, all possible combinations of causal conditions that are necessary (i.e., antecedents and independent variables) or sufficient (Ragin 2008b) are selected for the outcome (i.e., dependent variable) to occur. The truth table examines the causal conditions that produce the outcome in each case (Ragin 2008a). The initial truth table has  $2^k$  rows, where  $k$  represents the number of causal conditions (Ragin 2009). After building the initial truth table, the relevant combinations are selected using the consistency threshold of 0.80 and the irrelevant cases are deleted (Rihoux and Ragin 2009).

With fsQCA, three solutions are possible. The first, or complex, solution uses only the logical remainders consistent with the theoretical framework, and excludes any counterfactual cases (Ragin 2008b). The second is the parsimonious solution, which allows the combination of any counterfactual cases that contribute to the derivation of a logically simpler solution (Ragin 2008b). The third, or intermediate, solution includes only theoretically plausible counterfactuals and is generally considered the best solution (Ragin 2008a; Woodside and Zhang 2011).

Tables 5 and 6 present the intermediate solution for SEOs that experienced growth (Table 5) and SEOs that had not grown in the last 3 years (Table 6), including consistency and coverage indices for each configuration and for the general solution. Consistency indicates the degree to which a given condition in each solution term is a subset of the outcome (Ragin 2008b). High consistency indicates that a solution term is near sufficiency for an outcome, which is akin to significance metrics in statistical hypothesis testing (Woodside and Zhang 2011). The tables show that all consistency values exceed 0.80, indicating that these configurations are sufficient conditions to cause organisational growth.

The raw coverage refers to the proportions of membership of the outcome explained by each term of the solution. Unique coverage refers to the share of the outcome by one of the solution terms not covered by any other solution (Ragin 2008b). Unique coverage is useful because it illustrates the relative weight of each path in leading to high organisational growth values, by measuring the degree of empirical relevance of a certain cause or causal combination to explain the outcome (Fiss 2011; Ragin 2008a). Solution coverage refers to the joint importance of all causal paths (Bell, Filatotchev, and Aguilera 2014).

Table 5 shows the six solution configurations with acceptable consistency levels (consistency  $\geq 0.80$ ). Unique coverage for these configurations confirms that each one makes a unique contribution to the explanation of organisational growth. Unique coverage measures the proportion of memberships in the outcome explained solely by each individual configuration (Ragin 2008b). The output includes coverage and consistency indices for each configuration and for the solution as a whole. The intermediate solution (Table 5) shows the solution consistency and coverage, in this case 100% and 64%, respectively. These findings indicate that the suggested conditions are sufficient for the outcome. Table 6 presents five configurations of solutions with acceptable consistency levels (consistency  $\geq 0.80$ ). The combined solution configurations in this table account for about 89% of membership in the outcome (non-growth).

To improve the readability and simplicity of the presentation, we use the Ragin and Fiss (2008) notation. For each configuration-linked outcome, black circles indicate an attribute's presence and empty circles, its absence. Blank spaces indicate a “don't care” situation, in which the condition may be present or absent but is not relevant in that solution configuration (the solution is independent of the presence or absence of that particular condition).

Table 5. Configurations for organisational growth

Variables	Solution					
	1	2	3	4	5	6
Resource endowment		●	●	●		●
Self-financing	●		●	●		
Bricolage	●	●	●		●	●
TMT gender diversity	○	○	○	○	○	○
TMT organisational tenure diversity		●		○	○	
TMT for-profit experience diversity	○			○	○	○
Consistency	1	1	1	1	1	1
Raw coverage	0.26	0.38	0.25	0.2	0.47	0.45
Unique coverage	0.01	0.02	0.01	0.01	0.01	0.01
Solution consistency	1					
Solution coverage	0.64					

Note: Black circles “●” indicate the presence of causal conditions (i.e., antecedents). White circles “○” indicate the absence or negation of causal conditions. The blank cells represent “don't care” conditions.

Table 6. Configurations for organisations that did not grow

Variables	Solution				
	1	2	3	4	5
Resource endowment	○	○		●	○
Self-financing	●		●	○	○
Bricolage	●	●	●	●	○
TMT gender diversity	○	○	○	○	○
TMT organisational tenure diversity		○	○	●	○
TMT for-profit experience diversity		○	●		●
Consistency	0.91	0.98	0.92	0.92	0.9
Raw coverage	0.5	0.73	0.37	0.3	0.2
Unique coverage	0.04	0.18	0.02	0.11	0.05
Solution consistency	1				
Solution coverage	0.891				

Note: Black circles “●” indicate the presence of causal conditions (i.e., antecedents). White circles “○” indicate the absence or negation of causal conditions. The blank cells represent “don't care” conditions.

This form of presenting the results replaces the raw logical statement for each configuration, introduced by Ragin (2008a). For example, the description by notations for configuration Solution 1 in Table 5 signals a logical statement “•self-financing •bricolage •~gender diversity •~experience in the private sector diversity,” where the tilde represents the negation of the fuzzy-set condition, and the mid-level dot (•) represents the operation of the logical condition AND in the fuzzy set. The intermediate solution for each group offers several consistent paths leading to successful organisational growth. In other words, these configurations are regarded as sufficient conditions for successful organisational growth.

As an example of how to interpret the tables, we explain the first solution in Table 5. Here, the results indicate that, irrespective of resource endowment level and TMT organisational tenure diversity, the presence of bricolage and self-financing and the absence of TMT diversity in gender and experience in the private sector represent conditions for organisational growth. This solution suggests that SEOs can achieve organisational growth when they use bricolage intensively, are independent of external funding sources and have TMTs with homogeneity in gender and in private sector experience. If we link this configuration to the proposed scenarios in which bricolage takes place in an SEO defined in Table 1, the first solution shows that SEOs engaged in either ideational or necessity bricolage can grow as long as they are autonomous in their use of resources and possess TMTs that are homogeneous in gender and in private sector experience.

We now present the implications of our findings for the study hypotheses, linking each solution to the resource and autonomy scenarios described in Table 1. In the first four hypotheses (H1a-H1d), regarding different growth outcomes for organisations that engage in a high degree of bricolage depending on their resource endowment and autonomy, we observe that ideational bricolage leads in most cases to organisational growth, while necessity bricolage is associated with organisations that do not grow. The solutions obtained for organisations that grow (Table 5) show that bricolage leads to growth in three of the six configurations (Solutions 2, 3 and 6) in the presence of high resource endowments, independently of the level of autonomy. These situations correspond to ideational bricolage, in which resource-rich organisations engage in high levels of bricolage by choice, taking advantage of the resources at hand to renew the organisation and innovate. Solution 3 validates the scenario proposed in Hypothesis 1a, confirming that 25% of the SEOs that grow correspond to the configuration of high resource endowment, autonomy and high levels of bricolage.

In Table 6 (solutions for organisations that did not grow), Solution 1 confirms the scenario proposed in Hypothesis 1b, in which organisations with limited resources and a high degree of autonomy that engage intensively in bricolage do not succeed in growing. 50% of the SEOs that did not grow presented this configuration of conditions. As explained in the development of this hypothesis, bricolage used repeatedly in a situation of scarcity can generate an organisational identity based on the mentality of scarcity, which disperses efforts to promote multiple projects and isolates the firm from growth opportunities (Baker and Nelson 2005). This is the case of organisations that engage in bricolage out of necessity, also depicted in Solution 2 (Table 6), the solution that provides the highest coverage of cases in the sample of firms that did not grow (73%). Solution 4 from the same table corresponds to the scenario described in Hypothesis 1c, in which SEOs with high resource endowment and an absence of autonomy in resource use but high levels of bricolage do not manage to grow. In this situation, as explained in the development of the corresponding hypothesis, the selective use of bricolage would be better for achieving organisational growth. Solution 5 illustrates the situation labelled “limited bricolage” in Table 1 and indicates that low resource endowment, a lack of autonomy and limited bricolage, combined with TMT homogeneity in gender and organisational tenure but diversity in previous experience in traditional firms, represent a path to organisational stagnation. Given the presence of these conditions for the TMT, however, we cannot attribute the causes for stagnation only to the scenario of limited bricolage. Nor can we either accept or reject Hypothesis 1d, since none of the solutions corresponds to the scenario depicted in this hypothesis.

As to our second hypothesis, on the role of diversity in the TMT, our results show that in general organisations engaged in bricolage do not grow in the presence of TMT diversity. Moreover, the absence of TMT diversity in at least one dimension is a condition for the growth of SEOs in all solutions. Specifically, the absence of TMT gender diversity is a condition both for the growth and non-growth of SEOs involved in bricolage (see all solutions presented in Tables 5 and 6). This result indicates that TMT gender diversity is not relevant to analyses of bricolage and its potential impact on organisational growth. Therefore, hypothesis 2a cannot be confirmed.

SEOs whose TMTs include members with different degrees of experience in the for-profit sector do not grow either when the SEOs are involved in bricolage or when they are not (Solutions 3 and 5 in Table 6). Additionally, the absence of TMT diversity in experience in for-profit organisations is a condition for organisational growth in Solutions 4, 5 and 6 (Table 5). These results indicate that TMT diversity in this area exercises a negative effect on the



growth of SEOs involved in bricolage, which leads us to reject hypothesis 2c. The only type of TMT diversity that supports the growth of SEOs involved in bricolage is that of diversity in organisational tenure. Solution 2 (Table 5) shows that SEOs that practise bricolage and have high resource endowments and TMT tenure diversity but lack TMT gender diversity experience organisational growth. This solution provides partial support for hypothesis 2b, by demonstrating that TMT tenure diversity has a positive effect on the relationship between bricolage and organisational growth when organisations have high resource endowments. Therefore, SEOs with high resource endowments can take advantage of TMT diversity in organisational tenure to successfully practise bricolage, although if only the condition of the absence of autonomy in the same configuration is altered, organisational stagnation will result, as shown in Solution 4 (Table 6).

In addition to the scenarios proposed in the hypotheses, the results presented in Tables 5 and 6 introduce new configurations of resource endowment, autonomy and bricolage, for SEOs that grow and for those that do not. In the first case, Solutions 4 and 5 provide new insights into which other paths may explain organisational growth. Solution 4 shows that SEOs can achieve organisational growth, independently of bricolage, in the presence of high resource endowment and self-financing and in the absence of TMT gender diversity, employment tenure diversity and diversity in experience in for-profit organisations. This would be the case of resource-rich organisations, those able to sustain the development of new projects with the resources already possessed or of organisations that have access to conventional forms of resource acquisition and that use more conventional practices than bricolage to achieve innovation and growth. The lack of exposure to diverse perspectives (since their TMTs are homogeneous) can reinforce more common practices and favour the concentration of effort towards projects aimed at organisational growth.

Solution 5 shows that bricolage produces organisational growth even in the absence of all types of TMT diversity (47% of the SEOs that registered growth correspond to this configuration), suggesting that bricolage is a key element for organisational growth in SEOs, independently of the contingency factors proposed of resource endowment and autonomy. This result highlights the need to continue to explore factors not analysed in this study, in order to identify those which ensure a positive effect of bricolage on organisational growth.

Finally, in the case of SEOs that do not grow, Solution 5 shows that, in the absence of all other contingency factors, TMT diversity in previous experience in the for-profit sector is associated with stagnation. This result suggests there is a potential direct and negative effect

of this type of TMT diversity on organisational growth. This finding is consistent with previous results (Batillana and Dorado 2010), and is discussed in the next section.

In short, the results obtained suggest that the effect of bricolage on organisational growth is contingent on the availability of resources and on the degree of autonomy in using these resources. In most cases, ideational bricolage leads to organisational growth, whereas necessity bricolage leads to organisational stagnation. TMT diversity in organisational tenure can help SEOs to grow when bricolage and high resource endowment are present. On the other hand, TMT diversity in for-profit experience exerts a negative effect on the growth of SEOs engaged in bricolage.

#### *4.3.3. Additional analyses*

To validate the results of the analyses and to prevent measure biases, the same model was applied using growth in economic activity as the dependent variable. The results obtained reflect three paths to economic growth, corresponding to Solutions 1, 4 and 6 in Table 5. These results (available upon request from the authors) indicate that the paths to growth in economic activity are included in the general paths to organisational growth that we have identified.

## **5. Discussion and conclusions**

Much of the previous research into the role of bricolage in SEOs has adopted a qualitative approach, exploring how this process is developed (Di Domenico, Haugh, and Tracey 2010), how it helps SEOs to achieve their social mission (Mair and Martí 2009), and how it affects the development of innovation (Linna 2013). To our knowledge, this is the first study to provide quantitative evidence on the role of bricolage in the organisational growth of SEOs.

Unlike most previous studies in this field, which have conceptualised and analysed bricolage as a form of resourcefulness, we take a novel approach by analysing the role it plays in organisational growth, considering different levels of SEO resource endowment. Our results provide a nuanced understanding of this relationship by showing which configurations of resource endowment, autonomy in the use of resources and TMT diversity create the conditions for bricolage to drive organisational growth. More specifically, our results indicate that both resource endowment and autonomy in the use of resources influence the effect of bricolage on organisational growth. Moreover, TMT diversity in organisational tenure and previous experience in for-profit organisations are the only sources of diversity that are relevant to the growth of SEOs that practise bricolage. Together, these results help account for

the mixed evidence found by previous studies of the relationship between bricolage and performance. We show that there is no 'universal' bundle of bricolage and organisational conditions leading to growth. Instead, the role of bricolage is contingent on different factors characterising the present resources available to the organisation and the potential capacity to combine them.

Our results shed light on some of the conditions that must be met by organisations that use bricolage and wish to grow. On the one hand, bricolage is associated with organisational growth in organisations with high endowments of resources. Therefore, it can play a significant role not only as a means of addressing resource restrictions, but also as a practice fostering renewal and the creation of new opportunities to grow (Desa and Basu 2013; Baker and Nelson 2005). While bricolage can also help the organisation respond to challenges in the absence of rich resource endowments, under these conditions it does not lead to organisational growth. The resource endowment available to an SEO represents an important condition for the outcomes of bricolage, in terms of growth. Resource-rich organisations can use bricolage in their growth strategy, but resource-poor ones aiming to grow should explore alternative strategies for resource mobilisation, such as creating alliances with resource-rich organisations or with organisations that can legitimise them and facilitate access to new sources of resources for developing their social and economic activity.

Self-financing, viewed as a proxy for organisational autonomy in the use of resources by SEOs, also appears to support bricolage, either alone or together with high resource endowment. In accordance with the study hypotheses and consistent with Baker and Nelson (2005)'s concept of parallel bricolage, however, self-financing may, in the absence of high resource endowment, lock SEOs into the path of parallel bricolage, creating an organisational identity based on a mentality of scarcity, which disperses efforts towards multiple projects and isolates the firm from opportunities for growth (Baker and Nelson 2005).

Taken together, the results obtained indicate that the presence of high resource endowment and of resource autonomy influence bricolage both together and independently, but that, in the absence of either autonomy or high resource endowment, bricolage does not lead to growth. Our results also indicate that in some organisations bricolage alone is sufficient for growth, independently of resource endowment and autonomy. This suggests that other significant conditions may ensure that bricolage leads to organisational growth. These indications should be explored in future research.

This study provides an initial analysis of the relation between bricolage and TMT composition in SEOs and is one of the few studies that tackle this question in the field of

organisations in general. It reveals that TMT composition in terms of organisational tenure and prior experience in for-profit firms can play a role in the CEO's capacity to mobilise resources through bricolage and hence to grow.

Specifically, we show that TMT diversity in terms of prior experience in for-profit firms negatively influences the growth of CEOs, whether this diversity accompanies or is independent of bricolage. Although the question of operating tensions within a TMT whose members practise different types of organisational logic and have different values has not been analysed systematically (Doherty, Haugh, and Lyon 2014), some exploratory evidence seems to support our findings. A case study by Battilana and Dorado (2010) of two Bolivian microfinance institutions highlights the conflict experienced by an organisation that hired individuals with banking experience and also social workers. Individuals who have been socialised in different contexts, and who refer to differing forms of organisational logic, as is the case in the worlds of business and social care, tend to have different outlooks towards organisational practices (Bourdieu 1977) and making these outlooks compatible is a major challenge for CEOs (Battilana and Lee 2014; Dorado 2006). In this respect, too, TMT research findings indicate that diversity can be a two-edged sword. Although it provides numerous benefits in terms of access to resources, it can have negative effects on the team's cohesion (Huse 2007) by introducing bias into groups (Shore et al., 2009) or provoking conflicts and problems of communication (Jehn, Northcraft, and Neale 1999; Pelled, Eisenhardt, and Xin 1999; O'Reilly, Caldwell, and Barnett 1989). These elements may hamper the coordination of work and resources (Marimuthu and Kolandaisamy 2009) and have a negative effect on organisational performance (Siciliano 1996).

Problems derived from incorporating members with experience in for-profit entities can be especially challenging, since these members may introduce conflicts related to the defining elements of the CEO: its values and mission (Besharov and Smith 2014). Conflicts and lack of coordination and communication can frustrate the TMT's ability to find and agree on new solutions or can make it less efficient, since more time is needed to reach a consensus and to test the different solutions proposed (Priem, Lyon, and Dess 1999). All of these consequences will slow the decision-making process (Miller, Burke, and Glick 1998).

Incorporating members with different levels of organisational tenure into the TMT leads to growth in organisations that perform bricolage and have high levels of resources. The same organisation will not grow, however, in scenarios of absence of autonomy. This result is consistent with prior studies indicating that TMT diversity in organisational tenure benefits organisations (Goll and Rasheed 2005; Knight et al. 1999), since the new members contribute

new perspectives that can lead to the identification of innovative solutions and new growth opportunities. These positive effects are offset, however, by the negative consequences of lack of autonomy in the use of organisational resources, which prevents the organisation from taking advantage of the opportunities identified for growth.

The results obtained indicate that in order to explain the role of bricolage in organisational growth we must evaluate not only the frequency with which the organisation resorts to bricolage, as reported by Baker and Nelson (2005), but also the organisation's access to resources, autonomy in their use, knowledge of their possibilities and ability to adopt varied standpoints in this respect.

Like any research, this study has shortcomings. Its main limitations lie in its cross-sectional nature and its use of retrospective perceptual data from a single informant for each SEO, in a convenience sample from a particular country, Mexico. Nevertheless, this study is the first quantitative approach made to analyse the relationship between bricolage and SEO growth. In future research, we should consider building longitudinal databases with at least two informants per SEO to minimise potential bias. Due to the absence of a register of SEOs and the multiple legal forms these organisations take, it is currently impossible to build a representative sample of SEOs in Mexico. Taking into account that our database was built with organisations that applied for social entrepreneurship and social impact awards, our sample might be biased towards organisations that self-evaluate as having a significant social impact and/or are searching for funding and legitimacy.

As to the role of the study context in the results obtained, previous research suggests that the extent to which organisations engage in bricolage depends more on managerial discretion than on environmental constraints (Desa and Basu 2013; Barney, Wright, and Ketchen 2001). Previous studies on the relationship between bricolage and institutional context indicate, however, that bricolage is negatively related to political stability and ease of doing business in a country (Desa 2011). According to OECD Economic Surveys (2015, p. 19), Mexico has a "large stock of administrative regulations in many domains, notably in business entry and operation at the state and local levels". These conditions represent barriers for access to financing of new ventures and weak institutions. Since we expect SEOs to engage extensively in bricolage in this context, the organisations in our sample may be more biased towards the use of bricolage than SEOs in other contexts.

As a whole, our study opens two new lines of research in the field of social entrepreneurship, and of bricolage in particular. First, we stress that bricolage is a key factor in SEO growth and highlight the factors that can condition this relationship. Various studies

of traditional firms indicate that the relation between bricolage and performance is contingent on diverse factors internal to the organisation, such as its orientation to innovation (Senyard, Baker, and Davidsson 2009), the growth strategies it performs (Bojica, Istanbouli, and Fuentes-Fuentes 2015), TMT size, strong links to social networks and functional diversity (Senyard 2014). Future studies should explore other factors that may influence SEOs' use of bricolage.

Second, this study indicates the need to explore in greater depth the role played by the TMT in mobilising resources. Although, as in traditional entrepreneurial organisations, the management team of SEOs usually plays a key role in this respect, studies that have tackled this question in SEOs focus on the entrepreneurial individual, his/her characteristics and strategies for achieving the necessary resources (Desa 2008). In contrast, TMT characteristics and their influence on SEO performance have received little or no research attention. Our study is one of the first to shed light on the role of TMT composition in these organisations, particularly in relation to bricolage. While team composition can be indicative of the resources at hand and the team's potential to develop novel combinations of resources, TMT operating rules, governance structures and capacities such as creativity and innovativeness should also be considered in evaluating the TMT's capacity to mobilise resources through bricolage. Future studies should include variables that measure this aspect to provide a more comprehensive understanding of the role the TMT plays in bricolage.

We also make a methodological contribution by using fsQCA to examine the causal relationship between antecedents (i.e., bricolage, organisational resources, autonomy, TMT diversity in gender, organisational tenure and previous experience in a for-profit company) and organisational growth. This technique offers a more fine-grained understanding of the role of bricolage in organisational growth. FsQCA does not isolate the independent effects of single factors on a particular outcome but identifies the combinations of factors that bring about the outcome (Ragin 2008a), providing a more complete analysis of the causes that lead to organisational growth. Like any technique, fsQCA has limitations, in particular that it does not determine which conditions are more important in a solution, and limits the number of variables that can be included in models, as a higher number of variables leads to a higher number of solutions, which would impose a significant burden on the interpretation of results. For this reason, the analysis presented in this paper does not include all possible control variables typically used in quantitative research (e.g., type of activity performed by SEOs). In fact, we ran these additional analyses but do not report them due to space limitations (they are available upon request from the authors). The analyses generally replicate the patterns found

for bricolage, resource endowment and autonomy in the base model in most activity sectors, although some variation occurs in the role of TMT diversity in experience in for-profit firms, which becomes positive for organisational growth in sectors such as health-nutrition, social assistance, education and consultancy. This result indicates the need for future studies to take a closer look at the role played by diversity in SEOs.

In future research, bricolage should be explored together with other resource mobilisation practices like bootstrapping or developing strategic alliances, in order to evaluate their joint impact on SEO growth, taking into account the resource and autonomy scenarios proposed in this work. Future studies should also consider bricolage together with alternative approaches that can explain entrepreneurial processes, like effectuation or improvisation. Although these approaches share common elements and even coincide in certain instances (Baker, Miner, and Eesley 2003), they represent different concepts and can constitute alternative explanations to the phenomena analysed. For example, both bricolage and effectuation involve starting with the resources at hand and combining resources, but they differ in the extent to which the outcome of the process is predefined (Baker, Miner, and Eesley 2003). While in effectuation the outcome is unknown, bricolage can also be employed to solve specific problems and, therefore, with a predefined outcome. The resource endowment and autonomy scenarios may condition the extent to which the actions taken respond to specific problems (bricolage) or to the search for new responses in a context of high uncertainty (effectuation or bricolage). Similarly, improvisation (defined as “the convergence of design and execution”, following Baker, Miner, and Eesley 2003, p. 273 and Moorman and Miner 1998) and bricolage may coincide in the development of a solution. However, in some instances bricolage can take place in the execution of a pre-designed plan or act as a trigger of improvisation (Baker and Nelson 2005; Baker, Miner, and Eesley 2003). Future research using qualitative methods would offer deeper understanding about all the mechanisms at play that could explain the results obtained and the complex nature of these relationships. The foregoing discussion suggests that future studies should incorporate new dimensions for structuring analysis and distinguish between these alternative lenses, to determine the extent to which pre-defined goals and/or plans drive resource mobilisation efforts. This approach would provide valuable insights on the nature of the processes taking place in each scenario.

To conclude, this research shows that bricolage is not confined to scenarios of scarcity and that its potential to make positive contributions to organisational growth is higher in resource-rich than in resource-poor contexts. It opens and enriches the discussion on the role

of bricolage in SEO growth by adding new explanatory factors, such as the composition of the TMT and the degree of organisational autonomy. The results obtained reveal a rather complex set of relationships that require further exploration.

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**Appendix 1**

<b>Variables</b>	<b>Items</b>	<b>Factor Loadings</b>	<b>AVE</b>	<b>CR</b>	<b>Cronbach's alpha</b>
<i>Bricolage</i>	<p>We are confident of our ability to find workable solutions to new challenges by using our existing resources.</p> <p>We use any existing resource that seems useful in responding to a new problem or opportunity.</p> <p>We deal with new challenges by applying a combination of our existing resources and other resources inexpensively available to us.</p> <p>When dealing with new problems or opportunities, we take action, assuming that we will find a workable solution.</p> <p>By combining our existing resources, we take on a surprising variety of new challenges.</p> <p>When we face new challenges, we compose workable solutions from our existing resources.</p>	0.77- 0.875	0.68	0.927	0.906
<i>Resource endowments</i>	<p>We have enough financial resources to undertake new projects.</p> <p>We have enough human resources to undertake new projects.</p> <p>We have the technological support capacity to undertake new projects.</p>	0.773 -0.891	<b>0.678</b>	0.863	0.767
<i>Growth in economic results</i>	<p>In the last three years, our organisation has registered an increase in the number of beneficiaries.</p> <p>In the last three years, our organisation has registered an increase in the total satisfaction of our beneficiaries with the organisation.</p> <p>In the last three years, our organisation has registered an increase in the quality of life of our beneficiaries.</p>	0.74 - 0.889	0.699	0.874	0.792