Institutional complexity and social entrepreneurship: A fuzzy-set approach

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Abstract

This article examines the local institutional complexity of social entrepreneurship.

Building on a novel fuzzy-set analysis of 407 social entrepreneurs in the UK, the study

identifies five configurations of local institutional forces that collectively explain the

confidence of social entrepreneurs in successfully managing their business. The findings

demonstrate that local authorities are a dominant condition; yet combinations of other

complementary—more and less formalized—local institutions need to be in place to promote

the development of social entrepreneurship.

Keywords: Social entrepreneurship; institutional complexity; fsQCA

1.   **Introduction**

Recent research on social entrepreneurship stresses the need to advance the

knowledge on the institutional complexity that influences how social entrepreneurs think and

behave (Dacin et al., 2011; Felìcio et al., 2013). Similarly, scholars call for new studies that

use large number of cases and more complex research techniques capable of examining

which institutions play the most relevant role in the development of social enterprises (Estrin

et al., 2013; Short et al., 2009). This study aims to contribute to current knowledge by

conducting a fuzzy-set Qualitative Comparative Analysis (fsQCA) (Ragin, 2008) of the

combined effects of local institutions on social entrepreneurship, which typically reflects a

response to unmet needs in a local community (Di Domenico et al., 2010).

Drawing upon research on institutional complexity (Greenwood et al., 2011) and

social entrepreneurship (Grimes et al., 2013), the main rationale for hypothesis development

posits that a social entrepreneur's local-opportunity context consists of a range of more or

less central and formalized institutional conditions that jointly shape its opportunity

confidence (Dimov, 2010; Doyle & Ho, 2010). This study tests a set of configurational

hypotheses by conducting a fsQCA of 407 social entrepreneurs in the UK who define their

local area as the main operating context for their social venture. Building on necessity,

sufficiency and coverage analyses, this study makes causal interpretations regarding the

relationship between different combinations of local institutional conditions and the

opportunity confidence of social entrepreneurs.

This article contributes to business literature in two ways. One of the greatest

challenges when facing social entrepreneurship scholars is data collection and measurement,

in particular, when testing hypotheses that combine multiple factors with high explanatory

power (Short et al., 2009). This research addresses this challenge by introducing a novel

analytical approach to social entrepreneurship research that allows comparing configurations

of institutional forces drawing from a large sample. This configurational approach allows observing complex paths under which opportunities in social entrepreneurship unfold (Doyle & Ho, 2010).

Second, the results contribute to the knowledge of the institutional embeddedness of social entrepreneurship (Estrin et al., 2013; Pache & Chowdhury, 2012) by explaining under which combinations of local institutional forces social entrepreneurs build opportunity confidence. The analysis demonstrates both the dominance of the influence capacity of local authorities and the need of other complementary—more and less formalized— institutional factors to form such convictions. Hence, a social entrepreneur's confidence to deliver their place-based social mission does not rely on simple legislative local interventions. Only when exploring dominant institutions in the context of complementary local institutions can one understand the institutional complexity involving social entrepreneurship.

2.   Theory and hypotheses

2.1   The influence capacity of authorities

Local opinion leaders and resource-rich actors can leverage power over the legitimacy of organizations by aligning the key discourses and norms of the community with their own interests (Marquis & Battilana, 2009). Local governments and public funding bodies represent the most powerful authorities facing social entrepreneurship, because they shape local evaluations of and structure the opportunity context for new social enterprises (Nicholls, 2010). Accordingly, the influence capacity of local authorities over social enterprises can serve as the dominant condition in the formation of a social entrepreneur's belief that the (social) third-person opportunity at hand can be achieved (McMullen & Shepherd, 2006).

Hypothesis 1a. The influence capacity of local authorities is a dominant condition in the formation of strong opportunity confidence for social entrepreneurs.

Hypothesis 1b. The influence capacity of local authorities is necessary and sufficient by itself to form strong opportunity confidence for social entrepreneurs.

2.2   *The complementary influence of less formalized institutions*

Strong social relationships and support networks can increase a social entrepreneur's confidence (Dimov, 2010; Doyle & Ho 2010). Katre and Salipante (2012) support this argument by showing that successful social entrepreneurs can conduct in-person interactions and form close partnerships with leaders of local organizations who deal with a similar client base. After the creation of the social venture, the ongoing evaluation of the ease or difficulty of accessing informal support networks might support or undermine the social entrepreneur's belief of being able to achieve their venture's mission (McMullen & Shepherd, 2006).

A relevant normative institutional feature is social legitimacy, which reflects the extent to which key local stakeholders, opinion leaders, or governmental bodies evaluate social entrepreneurship as "desirable, proper or appropriate" (Suchman, 1995, p. 574). The legitimacy of social entrepreneurship in a community thus indicates the demand for, supply of, and allocation of resources to social enterprises, which can influence the entrepreneurs' confidence in successfully operating their business (Kibler et al., 2014). New social enterprises not only create new goods and services; such firms face and must deal with legitimacy issues in the community (Nicholls, 2010) to overcome entrepreneurial uncertainty and the liabilities of newness, and to increase their prospects of survival (Shepherd et al., 2007).

Hypothesis 2. Combinations of complementary, less formalized institutional factors are necessary to form social entrepreneurs' strong opportunity confidence.

2.3   The complementary influence of more formalized institutions

Local key public actors organize *more formalized* institutional structures that can influence social entrepreneurship through a variety of regulative incentives (Nicholls, 2010). The existing literature suggests that complex regulatory and bureaucratic processes tend to discourage entrepreneurial activity. Lim et al. (2010) also demonstrate how low regulative complexity can support the formation entrepreneurial opportunity beliefs.

Similarly, local regulative frameworks, which ease the access to funding and provide highly flexible reporting formats, help social entrepreneurs to develop strategically their venture in line with their specific objectives and resource limitations (Nicholls, 2010). As such, local formalized structures, which provide a range of accessible funding opportunities and less complex funding bureaucracy, may enhance a social entrepreneur's confidence to overcome uncertainty and to mobilize successfully entrepreneurial action (McMullen & Shepherd 2006).

The literature also associates more formalized institutions that shape entrepreneurial processes with the institutional support in labor recruitment and training (Marquis & Battilana (2009) and the availability of financial advice and services (Lim et al. 2010). Katre and Salipante (2012) suggest that successful social entrepreneurs are able to seek competent workers that commit to and can bring in key resources for meeting the social venture's aims. Thus, formal institutional structures supportive of labor recruitment in a community may strengthen a social entrepreneur's confidence to recruit valuable workforce, which increases the likelihood of future success.

Similarly, a greater presence of public services that offer particular support in applying for funds or bidding for contracts can reflect a strong contextual incentive for social entrepreneurs to meet successfully the venture's social mission (Dorado & Ventresca, 2012).

The latter can further strengthen the social entrepreneur's confidence to overcome financial uncertainty and thus their convictions regarding the value of the opportunity under pursuit (Dimov, 2010).

Hypothesis 3. Combinations of complementary, more formalized institutional factors are necessary to form strong opportunity confidence of social entrepreneurs.

3. Data and methods

3.1   Method

Explaining how social entrepreneurs build up opportunity confidence entails complexity and arguably involves many relevant institutional conditions. This study draws on conjunctural causality and systematic comparison by using fsQCA. This method systematically compares different combinations of causal and outcome conditions and produces combinations of causes that collectively explain the outcome under examination (Ragin, 2008). Instead of searching for antecedent conditions common to all instances of the outcome, fsQCA focuses on the possibility that the same outcome can follow from different combinations of conditions (Ragin, 2008).FsQCA allows analyzing complex causality and testing the hypotheses on the dominance, necessity, and sufficiency of particular conditions. Dominance occurs when a certain condition emerges as a core condition in most of the solution terms. A given condition that is both necessary and sufficient for a particular outcome is the one that simultaneously shows two attributes: 1. every time the outcome is present, the condition will be present (i.e. the outcome requires the condition), and 2. every time the condition is present, the outcome will be present (i.e. its mere presence produces the outcome). Although QCA was originally an inductive method useful for analyzing small numbers of cases, recent studies (e.g. Schneider et al., 2010; Huarng, 2015) demonstrate its methodological robustness when dealing with configurational hypotheses expressing complex

causality.

3.2   *Cases selection and data collection*

The data stems from the 2008-2009 National Survey of Third Sector Organizations in the United Kingdom. Following fsQCA requirements for sample selection (Ragin, 2008), the study reduces the original sample of more than 14,000 respondents according to three criteria. First, the procedure separates social enterprises from other types of third-sector organizations based on the following definition: *Social enterprises are businesses with primarily social objectives that reinvest their surpluses for social purposes in the business or community rather than trying to maximize profit for shareholders and owners*. Following, social entrepreneurs are different to established social enterprises depending on whether the venture has been in operation for 4 years of less. Third, in controlling for the potential effect of internal factors such as prior knowledge, experience, and overall confidence, the research focused only on social entrepreneurs show strong managerial capacity and strong prior success. Finally, to capture the influence of local institutional conditions, the study focused on ventures that carry out their social activities only at council, borough, or neighborhood levels. This selection process leads to constitute a final sample of 407 social entrepreneurs.

3.3   *Measurement*

3.3.1   *Outcome measure*

This study captures opportunity confidence (CONFIDENCE) (Dimov, 2010) on a 5-point Likert scale. The scale measures the degree to which a social entrepreneur is confident that the social venture will be successful within a 12-month window, with the adequate local institutional conditions.

3.3.2   Causal conditions

To test the hypotheses, the study defines measures for causal conditions according to the notions of centralization, fragmentation, and formal structuring of institutions (Greenwood et al., 2011). Table 1 shows the description of each measure.

Table 2 here.

3.4   Calibration and analytical procedure

Calibration is a central procedure in fsQCA. By means of an estimation technique, the analysis transforms variable raw scores into set measures, rescaling the original measures into scores ranging from 0.0 to 1.0 (Ragin, 2008). Calibration thresholds are 4 for full inclusion, 2 for full exclusion, and 3 for the cross-over point. Thresholds build on theoretical and substantive knowledge (Ragin, 2008)

The truth table consists of 25 rows and 315 cases relevant for the outcome (Note: calibration and truth tables are available from the authors upon request). Two hundred and seventy-one cases exceed the lowest acceptable consistency and frequency (set at ≥0.9 for consistency and 5 for frequency), and 44 cases are below the consistency cutoff line. Drawing on prior fsQCA studies (Muñoz & Dimov, 2015), the consistency threshold corresponds to a gap in the distribution of consistency scores. Table 2 provides the descriptive statistics and correlations for the calibrated scores. Overall, the low correlation values do not raise concerns about divergent validity among the analysis's conditions.

Table 2 here.

4.   Results

By means of counterfactual analysis and logical minimization, fsQCA reduces the truth table rows to a solution table comprising simplified combinations of conditions (Ragin,

2008). Table 3 shows the results of the configurational analysis for opportunity confidence and highlights the differences between core (large circles) and peripheral conditions (small circles). Results in Table 3 confirm that the set relation between configurations of conditions and the outcome is highly consistent: individual results are above .82 and overall consistency is .83. The total coverage of the solution is .69, which indicates that causal paths explain most of the outcome.

Table 3 here.

Findings indicate that strong opportunity confidence in social entrepreneurship does not depend on a single institutional factor but emerges from five sufficient configurations of causal conditions.

In solution 1, perception of AUTHORITIES is a core condition but the outcome needs complementary factors to occur. In solution 1, the presence of NETWORKS, LEGITIMACY and LABOR reinforce the central features of AUTHORITIES.

Solutions 2a and 2b also show perceptions of AUTHORITIES as a core condition but complementary factors are necessary to form opportunity confidence. In solution 2a, the presence of NETWORKS, LEGITIMACY, ADVICE and BUREAUCRACY reinforces the central features of AUTHORITIES. Unlike solution 2a, which requires the presence of LEGITIMACY, solution 2b requires the presence of LABOR instead. These complementary ingredients are interchangeable conditions (Ragin, 2008). Therefore, S2a and S2b are similar solution paths and can merge into a superset combination where CONFIDENCE is the result of the joint presence of AUTHORITIES, NETWORKS, ADVICE, and BUREAUCRACY, with either LEGITIMACY or LABOR.

Solution 3 combines presence of AUTHORITIES as the central condition with absence of FUNDING, ADVICE and BUREAUCRACY. Thus, unlike solutions 1, 2a, and 2b, opportunity confidence in solution 3 requires the absence of conditions to occur.

Solution 4 combines one core condition, funding opportunities, with six peripheral conditions: joint presence of NETWORKS and LABOR, and joint absence of LEGITIMACY, AUTHORITIES, ADVICE, and BUREAUCRACY. This solution path shows low unique and raw coverage, which means that this solution is peripheral in empirical relevance and only contains counterintuitive cases. However, this solution and cases are not errors, they represent an alternative causal recipe for the outcome (Ragin, 2008).

As Table 3 shows, the analysis yields a group of four causal configurations which presence of AUTHORITIES dominates (S1, S2a, S2b and S3) and only one counterintuitive configuration which FUNDING (S4). Although the results yield one counterintuitive causal path (S4), the fact that AUTHORITIES dominates the most empirically relevant casual configurations (S1, S2a, S2b and S3) gives support to *H1a*.

However, despite the dominance of AUTHORITIES across the different causal configurations, this condition is neither necessary nor sufficient in itself to produce the outcome. This study conducts a confirmatory necessity analysis with presence and absence of institutional conditions to corroborate these results. Table 4 portraits the results of the confirmatory necessity analysis: no condition surpasses the adequate consistency level (0.95) to be a necessary condition or the minimum acceptable consistency level (0.8) to be a partially necessary condition (Ragin, 2006). Therefore, complementary institutional conditions are necessary to form strong opportunity confidence in social entrepreneurship. This result refutes *H1b*.

Table 4 here.

In terms of the distinct relevance of less and more formalized institutional features in shaping opportunity confidence, the solution table shows a balanced distribution; solution 1 and 2a+2b show similar empirical results. However, the absence of more formalized conditions in solution 3 and 4 suggests that a relative inclination towards less formalized

institutional factors exists when forming opportunity confidence. Indeed, although solution 3 shows a relatively low empirical relevance, its unique contribution is higher than the other four causal paths. Drawing on these results, the study shows that the presence of multiple causal paths in both more and less formalized contexts reinforces the idea of *multiple conjunctural causation* and gives support to *H2* and *H3*. In addition, combinations of less formalized institutional conditions are empirically more relevant than combinations of more formalized institutions.

The study conducts three tests to assess the robustness of the findings. The first test assesses the stability of the solutions by changing the frequency and consistency thresholds. The second test permits controlling for the potential effect of more or less strong managerial capacity and prior success by analyzing through fsQCA the role of local institutional conditions in four subsets of the sample. The final analysis, sensitivity analysis, examines whether the findings are robust to the use of alternative specifications of causal conditions (Ragin 2006). All tests corroborate the robustness of the results.

5.   Discussion

Social entrepreneurship research focuses on understanding how social entrepreneurs think and behave (Dacin et al., 2011; Grimes et al., 2013) and how institutional complexity shapes the way the process of social entrepreneurship unfolds (Estrin et al., 2013; Felìcio et al., 2013; Pache & Chowdhury, 2012). This study seeks to examine which combinations of local institutional forces play the largest role in social entrepreneurs' opportunity confidence.

To address this research challenge, this study develops the theoretical frame and the set of subsequent hypotheses by combining recent insights from literature on social entrepreneurship and institutional complexity theory. To provide a systematic conceptualization of the local institutional context for the study, the research focuses on the

notions of centralization, fragmentation, and formal structuring (Greenwood et al., 2011).

FsQCA is the most suitable analytical approach to provide a novel systematic analysis of 407

early-stage social entrepreneurs in the UK.

The analysis strongly supports the central role of the influence capacity of local

authorities in shaping opportunity confidence among social entrepreneurs that carry out their

activities only at council, borough, or neighborhood levels. This finding emphasizes the

importance of developing a more rigorous empirical knowledge about the local centralization

of single institutional factors and how these factors shape the development of social

enterprises in a particular place. However, the study also highlights the need to address the

role of combinations of institutional features (Short et al., 2009)—instead of a single

institutional factor (Greenwood et al., 2011)—to develop a comprehensive understanding

social entrepreneurship in a particular location. The findings show that the dominance of the

influence capacity of local authorities is not sufficient in itself to strengthen opportunity

confidence in social entrepreneurship. Instead, complementary institutional conditions are

necessary produce the outcome. Accordingly, this study argues that understanding the local

institutional complexity involving social entrepreneurship requires a closer examination of

other, potentially complementary, local institutions with lower or higher degrees of

formalization.

The configurational analysis identifies five different configurations of more or less

formalized local institutions shaping opportunity confidence. In four configuration paths, the

perceived influence capacity of local authorities is the most dominant institutional factor;

however, this dominance is only the case when, for instance, the support of local networks

and a high degree of social legitimacy together with the local support in labor recruitment

(solution 1) or local financial advice and less financial bureaucracy (solutions 2a) is present.

Furthermore, the local authorities' influence capacity only plays the most dominant role in

shaping social enterprises when local funding opportunities and financial advice are absent (solution 3).

The findings partially imply that, in addition to the centrality of local authorities, opportunity confidence consists in combinations of less formally organized institutional features, which emphasizes the importance of local social-normative elements (Kibler et al., 2014) in the development of social enterprises. However, even if less formalized institutional structures seem more relevant than formal (economic) regulations and support, a single informal institutional condition is not sufficient by itself to complement the central effect of the perceived influence capacity of local bodies on the opportunity confidence of social entrepreneurs.

6.   Conclusion

This article responds to the need for more comprehensive techniques in the research on the institutional complexity of social entrepreneurship. The study introduces a novel fuzzy-set approach to social entrepreneurship research that allows comparing configurations of institutional conditions under which social entrepreneurs build confidence. The analysis concludes that the examination of different sets (fragmentation) of more or less centralized and formalized local institutions (formal structuring and centralization) helps to understand better how institutional forces jointly foster social entrepreneurship.

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Table 1. Description of measures for causal conditions

Construct	Measurement
Influence capacity of local authorities (AUTHORITIES)	Uses a 5-point Likert scale to measure the extent to which the entrepreneur considers that local governmental institutions have power over their venture's performance and success.
Local Support Networks (NETWORKS)	Captured on a 3-item Likert scale (α=0.78) that assesses the extent to which the entrepreneur is able to access local support networks of third sector organizations that help them to influence local decisions and improve their service.
Local Social Legitimacy (LEGITIMACY)	Captured on a 7-item Likert scale (α=0.92) that measures the degree to which the entrepreneur considers that key local actors and bodies socially approve their venture in addressing relevant social issues.
Local Support In Labor Recruitment (LABOR)	Captured on a 4-item Likert scale (α=0.83) that measures the extent to which the entrepreneur considers that local institutions support the venture (help and advice, but no direct funding) in recruiting management and leadership staff, workers, volunteers and board members.
Local Funding Opportunities (FUNDING)	Captured on a 6-item Likert scale (α=0.8) that measures the entrepreneur's evaluation of the range of and access to funding opportunities that local bodies provide.
Local Financial Advice (ADVICE)	Captured on a 3-item Likert scale (α=0.79) that evaluates the extent to which the entrepreneur considers that the local institutional context entails help, advice and support in how to access and maintain sufficient financial resources.
Local Funding Bureaucracy (BUREAUCRACY)	Captured on a 3-item Likert scale (α=0.72) that assesses the extent to which the entrepreneur is satisfied with the process and administration involved in receiving funding and/or maintaining contracts with formal local institutions, such as local statutory bodies.

Table 2. Descriptive statistics and correlations

	Mean	SD	1	2	3	4	5	6	7
1 CONFIDENCE	0.58	0.27							
2 LEGITIMACY	0.525	0.369	.128[**]						
3 AUTHORITIES	0.568	0.327	.222[**]	.684[**]					
4 BUREAUCRACY	0.426	0.366	.311[**]	.456[**]	.440[**]				
5 FUNDING	0.375	0.346	.285[**]	.402[**]	.458[**]	.587[**]			
6 LABOR	0.554	0.353	0.075	.407[**]	.339[**]	.310[**]	.307[**]		
7 ADVICE	0.41	0.363	.199[**]	.565[**]	.532[**]	.599[**]	.550[**]	.469[**]	
8 NETWORKS	0.596	0.361	.179[**]	.547[**]	.442[**]	.330[**]	.366[**]	.462[**]	.531[**]

**. 0.01

Table 3. Solution table

Configurations	Solutions				
	1	**2A**	**2B**	**3**	**4**
Less formalized local institutional features					
NETWORKS	●	●	●	-	●
LEGITIMACY	●	●	-	-	⊗
AUTHORITIES	⬤	⬤	⬤	⬤	⊗
LABOR	●	-	●	-	●
FUNDING	-	-	-	⊗	⬤
ADVICE	-	●	●	⊗	⊗
BUREAUCRACY	-	●	●	⊗	⊗
More formalized local institutional features					
Consistency	0.82	0.9	0.9	0.88	0.92
Raw coverage	**0.45**	**0.37**	**0.36**	**0.35**	**0.11**
Unique coverage	0.039	0.026	0.005	0.12	0.014
Overall consistency			0.83		
Overall coverage			0.69		

(n=407, frequency threshold=5)

Table 4. Confirmatory necessity analysis

Condition tested	Consistency	Coverage
SUPPORT	0.73	0.71
~ SUPPORT	0.48	0.69
LEGITIMACY	0.65	0.72
~ LEGITIMACY	0.56	0.68
AUTHORITIES	0.76	0.78
~ AUTHORITIES	0.55	0.73
LABOR	0.68	0.71
~ LABOR	0.55	0.72
FUNDING	0.53	0.82
~ FUNDING	0.68	0.64
ADVICE	0.55	0.78
~ ADVICE	0.66	0.65
BUREAUCRACY	0.59	0.80
~ BUREAUCRACY	0.63	0.63

The negate sign (~) indicates absence of condition