Social Entrepreneurship Strategies for Economic Resilience in Conflict-Affected Communities

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Abstract: *This study analyzes the relationships among collaboration networks, strategic alliances, adaptive capabilities, innovation, flexibility, and economic resilience among social entrepreneurs operating under conditions of prolonged insecurity, displacement, resource constraints, and institutional instability. The study adopts a quantitative, nonexperimental, cross-sectional, explanatory design based on partial least squares structural equation modeling. Data were collected through a five-point Likert questionnaire comprising reflective indicators for the six constructs. Content validity was assessed through expert evaluation, while reliability, convergent validity, discriminant validity, and structural relationships were examined using established measurement and structural model procedures. The results indicate that collaboration networks significantly influence strategic alliances and adaptive capabilities, while strategic alliances also contribute significantly to adaptive capabilities. Adaptive capabilities show strong positive relationships with innovation and flexibility and directly contribute to economic resilience. Innovation and flexibility positively affect economic resilience, with flexibility demonstrating the stronger direct contribution. Collaboration networks and strategic alliances also maintain significant direct relationships with economic resilience, indicating that relational resources contribute beyond their indirect effects through organizational adaptation. The structural model explains 73.1% of the variance in economic resilience, highlighting the relevance of interconnected organizational and relational mechanisms for sustaining social enterprises under adverse conditions. Indirect effects further demonstrate that collaboration networks and strategic alliances strengthen economic resilience through adaptive capabilities, innovation, and flexibility. These findings conceptualize economic resilience as a dynamic organizational process based on relational embeddedness, resource*

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reconfiguration, continuous innovation, and strategic flexibility. The study contributes an integrated explanatory model for understanding how social entrepreneurs mobilize relationships and adaptive mechanisms to maintain operations and pursue opportunities amid persistent adversity.

Keywords: social entrepreneurship, collaboration networks, adaptive capabilities, flexibility, economic resilience

Introduction

Social entrepreneurship has become an increasingly relevant analytical perspective for understanding how individuals and organizations create economic and social value under conditions in which conventional market mechanisms are insufficient to address persistent social needs. Rather than reducing entrepreneurial activity to the pursuit of private economic returns, social entrepreneurship emphasizes the creation of social value, the mobilization of resources, and the transformation of institutional and community conditions. Mair and Martí (2006) conceptualize social entrepreneurship as a process embedded in particular social contexts, while Zahra et al. (2009) emphasize the capacity of social entrepreneurs to identify and exploit opportunities for the creation of social wealth. This perspective is particularly pertinent in territories affected by armed conflict, where entrepreneurship is not only an economic activity but can also become a mechanism for reconstructing livelihoods, sustaining communities, and generating opportunities under conditions of institutional and material constraint.

The problem becomes more complex when social entrepreneurship develops in regions exposed to prolonged violence, displacement, insecurity, and disrupted markets. Armed conflict can weaken productive infrastructure, restrict access to financial capital, fragment social relationships, reduce market opportunities, and increase uncertainty surrounding investment and business continuity. Consequently, conventional explanations of entrepreneurial performance based primarily on internal resources may be insufficient for understanding how entrepreneurs maintain their operations when those resources are scarce. Evidence from Santander illustrates this tension. Public programs have supported displaced and conflict-affected entrepreneurs through seed capital, productive equipment, training, commercialization opportunities, and organizational strengthening, indicating that entrepreneurial activity is intertwined with processes of economic integration and reconstruction. More recently, productive initiatives in the Magdalena Medio region of Santander have been used to support displaced families in generating sustainable income and rebuilding their livelihoods.

This context challenges a purely resource-based understanding of entrepreneurial resilience. From a resource perspective, organizations are expected to depend on financial, physical, technological, and human resources to sustain their activities. However, the experience of entrepreneurs operating in conflict-affected environments suggests that resilience may emerge precisely when internal resources are constrained and actors must compensate through

relationships, alliances, knowledge exchange, and adaptive action. Economic resilience research supports this interpretation by positioning entrepreneurship as a mechanism through which regional economies diversify, develop capacities, and respond to external shocks (Williams et al., 2013; Williams & Vorley, 2014). Thus, resilience should not be interpreted simply as the capacity to return to a previous state after a disturbance. Rather, it involves the capacity to anticipate threats, cope with disruption, and adapt organizational practices to changing conditions (Duchek, 2020). This conceptualization provides a bridge between entrepreneurial action and the broader dynamics of economic resilience.

An important epistemological implication follows from this problem. A positivist interpretation could treat resilience as an observable organizational outcome explained by measurable resources and capabilities. Nevertheless, such an approach risks overlooking the relational and contextual processes through which entrepreneurs construct viable responses to violence and displacement. A critical realist perspective offers a broader interpretation because it distinguishes observable entrepreneurial outcomes from the underlying mechanisms and contextual structures that generate them. In this view, collaboration networks, strategic alliances, adaptive capabilities, and innovative practices can be understood as mechanisms whose effects depend on the institutional and socioeconomic conditions in which entrepreneurs operate. The same resource may therefore produce different outcomes depending on the strength of social relationships, access to markets, institutional support, and exposure to uncertainty.

Social capital theory complements this epistemological position by explaining why relationships can become economically consequential when physical and financial resources are insufficient. Social networks provide access to information, trust, cooperation, knowledge, opportunities, and material assistance that may not be available through formal market mechanisms. Aldrich and Meyer (2015) demonstrate that social capital is an important component of resilience because networks can facilitate access to resources and collective capacities during disruptive events. Within entrepreneurial environments, this suggests that collaboration networks may compensate for deficiencies in internal resources by connecting entrepreneurs to customers, suppliers, institutions, financial opportunities, technical knowledge, and other entrepreneurs. The importance of relational resources is particularly evident in Santander, where initiatives supporting conflict-affected entrepreneurs have emphasized training, networking, commercialization, and institutional articulation alongside material assistance.

Strategic alliances constitute a complementary mechanism. Whereas social networks describe the broader relational environment in which entrepreneurs are embedded, strategic alliances represent more intentional forms of cooperation designed to achieve economic or organizational objectives. In conditions of uncertainty, alliances can distribute risks, facilitate access to complementary resources, expand markets, and accelerate learning. This distinction is important because resilience may depend not simply on having many social connections but on converting those connections into productive forms of collaboration. The theoretical implication is that relational embeddedness can become an organizational capability when

entrepreneurs deliberately mobilize relationships to address resource deficiencies and environmental disturbances.

Organizational resilience theory provides the second major theoretical foundation for this argument. Duchek (2020) conceptualizes resilience as a meta-capability involving anticipation, coping, and adaptation. Such a framework moves beyond the idea that resilience is merely an outcome and instead explains it as a dynamic capacity generated through organizational practices. Entrepreneurs operating in unstable environments must anticipate market and security threats, cope with resource interruptions, and adapt their products, skills, business models, and relationships to changing circumstances. Accordingly, flexibility, innovation, problem-solving, and continuous learning can be interpreted as manifestations of adaptive capabilities rather than isolated entrepreneurial characteristics. The resilience process therefore emerges from the interaction between available resources, relational mechanisms, and adaptive capabilities.

This theoretical dialogue also connects economic resilience with entrepreneurship at the territorial level. Williams and Vorley (2014) argue that entrepreneurship contributes to the capacity of regional economies to respond to shocks by supporting diversification and adaptive change. Gherhes et al. (2018) further demonstrate that historical and institutional conditions can shape entrepreneurial activity and local economic resilience, particularly in places affected by persistent structural constraints. These contributions indicate that resilience is neither exclusively an individual attribute nor solely an organizational property. It is produced through interactions between entrepreneurs, organizations, communities, institutions, markets, and historical conditions. For social entrepreneurs in conflict-affected Santander, therefore, economic resilience can be conceptualized as a multilevel phenomenon in which entrepreneurial capabilities and relational resources interact with a turbulent territorial environment.

The delimitation of the present study follows from this theoretical position. The analysis focuses specifically on social entrepreneurs operating in Santander, Colombia, with particular attention to environments historically affected by armed violence, displacement, economic insecurity, and resource constraints. The central concern is not to explain armed conflict itself, nor to evaluate public policy effectiveness, but to understand how entrepreneurial actors mobilize relational and organizational mechanisms to sustain economic activity under adverse conditions. This delimitation allows the study to examine the relationship between collaboration networks, strategic alliances, adaptive capabilities, innovation, and economic resilience without treating resilience as an automatic consequence of external assistance or material resources.

The empirical problem can therefore be formulated as a tension between resource scarcity and entrepreneurial continuity. If economic resilience depends substantially on the availability of financial, physical, and organizational resources, entrepreneurs operating in conflict-affected territories should experience severe difficulties in sustaining their ventures. Yet evidence from Santander indicates that entrepreneurs continue to create and maintain productive activities despite displacement, poverty, and previous experiences of violence. Institutional initiatives

have documented entrepreneurial projects involving manufacturing, agriculture, services, crafts, food production, and other activities among conflict-affected populations. This apparent contradiction suggests that resilience cannot be adequately explained by internal resources alone. Instead, entrepreneurs may compensate for resource deficiencies through collaboration, strategic alliances, innovation, flexibility, and adaptation.

Based on this reasoning, the proposed model positions **collaboration networks** and **strategic alliances** as relational mechanisms that facilitate access to external resources and opportunities, while **adaptive capabilities** represent the organizational mechanism through which entrepreneurs transform those resources into responses to environmental uncertainty. **Innovation and flexibility** are conceptualized as expressions of adaptive entrepreneurial behavior, and **economic resilience** represents the resulting capacity to maintain, reconstruct, and adapt business operations despite adverse conditions. The model consequently establishes a theoretical sequence in which relational resources strengthen adaptive capabilities, adaptive capabilities encourage innovative and flexible responses, and these mechanisms collectively contribute to economic resilience. This formulation is consistent with the view that resilience develops through interactions among social resources, organizational capabilities, and environmental pressures rather than through a single isolated determinant (Aldrich & Meyer, 2015; Duchek, 2020).

The model also provides a basis for examining whether strategic relationships have both direct and indirect relevance for resilience. Collaboration networks may directly increase resilience by providing access to information, customers, suppliers, institutional assistance, and social support. At the same time, these networks may strengthen strategic alliances that provide more structured access to complementary resources. Strategic alliances may then stimulate adaptive capabilities by exposing entrepreneurs to new knowledge, markets, technologies, and organizational practices. Adaptive capabilities should subsequently promote innovation and flexibility, enabling entrepreneurs to modify products, processes, skills, and strategies in response to changing market and environmental conditions. Economic resilience is therefore expected to emerge from a cumulative process rather than from a single entrepreneurial characteristic.

The importance of this model is reinforced by the Colombian context, where productive initiatives have increasingly been incorporated into strategies for socioeconomic stabilization, livelihood reconstruction, and community development among populations affected by armed conflict. Programs implemented by development organizations have explicitly linked productive initiatives with resilience, sustainability, associativity, value-chain development, and economic participation. These interventions provide contextual evidence that resilience is closely connected to the capacity of entrepreneurs and communities to establish productive relationships and develop capabilities rather than merely receive material support.

Accordingly, the present study seeks to identify and explain the mechanisms through which social entrepreneurs in Santander sustain economic activity under conditions of violence, displacement, uncertainty, and limited internal resources. It specifically seeks to determine whether collaboration networks and strategic alliances contribute to economic resilience and

whether adaptive capabilities, innovation, and flexibility constitute mechanisms through which relational resources are transformed into sustained entrepreneurial performance. The study thus contributes to the literature by integrating social entrepreneurship, social capital, organizational resilience, and economic resilience into a single explanatory framework applicable to conflict-affected entrepreneurial environments.

How do collaboration networks, strategic alliances, adaptive capabilities, innovation, and flexibility contribute to the economic resilience of social entrepreneurs operating in conflict-affected environments in Santander, Colombia?

H1: Collaboration networks positively influence the strategic alliances developed by social entrepreneurs in conflict-affected environments.

H2: Collaboration networks positively influence the adaptive capabilities of social entrepreneurs.

H3: Strategic alliances positively influence the adaptive capabilities of social entrepreneurs.

H4: Adaptive capabilities positively influence entrepreneurial innovation.

H5: Adaptive capabilities positively influence entrepreneurial flexibility.

H6: Innovation positively influences the economic resilience of social entrepreneurs.

H7: Flexibility positively influences the economic resilience of social entrepreneurs.

H8: Adaptive capabilities positively influence the economic resilience of social entrepreneurs.

H9: Collaboration networks positively influence the economic resilience of social entrepreneurs.

H10: Strategic alliances positively influence the economic resilience of social entrepreneurs.

H11: Collaboration networks and strategic alliances indirectly contribute to economic resilience through adaptive capabilities, innovation, and flexibility.

Method

The study adopted a quantitative, nonexperimental, cross-sectional, and explanatory design to examine the relationships among collaboration networks, strategic alliances, adaptive capabilities, innovation, flexibility, and economic resilience among social entrepreneurs operating in conflict-affected environments in Santander, Colombia. The nonexperimental design was appropriate because the study examined naturally occurring entrepreneurial conditions without manipulating the organizational or contextual variables. The cross-sectional approach permitted the measurement of the proposed constructs during a defined period, whereas the explanatory orientation was used to estimate the direction and strength of the relationships proposed in the theoretical model. Following Hair et al. (2022), structural equation modeling was considered appropriate because the research framework incorporated several latent constructs represented by multiple observable indicators and included both direct and indirect relationships.

The study population consisted of social entrepreneurs whose productive activities were located in Santander and whose entrepreneurial trajectories had developed within environments characterized by socioeconomic instability, displacement, insecurity, restricted access to resources, or other consequences associated with prolonged armed violence. The sampling strategy was purposive because the research required participants with specific entrepreneurial

experience rather than a general population of business owners. Participants were required to have an active entrepreneurial initiative or a demonstrable entrepreneurial trajectory, to perform economic activities in Santander, and to possess sufficient knowledge of the financial, organizational, relational, and adaptive processes involved in maintaining their ventures. The sampling procedure sought variation in entrepreneurial activities and contextual conditions so that the analysis could incorporate different forms of resource mobilization and adaptation. Purposive sampling is particularly suitable when participants must satisfy substantive characteristics directly related to the phenomenon under investigation (Palinkas et al., 2015).

Participation was governed by explicit inclusion and exclusion criteria established before data collection. Individuals were eligible when they were adults, were directly involved in the management or strategic operation of a social enterprise, had sufficient experience to evaluate their entrepreneurial practices, and voluntarily agreed to participate after receiving information about the study. The protocol excluded individuals who were not directly involved in the entrepreneurial initiative, respondents whose participation was based exclusively on an intermediary's representation, questionnaires with substantial missing information, duplicate responses, and responses that showed evidence of systematic nonengagement. Individuals were also excluded when participation could reasonably expose them to additional social, psychological, legal, or security risks because of the sensitive characteristics of conflict-affected environments. These safeguards followed the principles of respect for persons, informed consent, minimization of potential harm, confidentiality, and voluntary participation established in contemporary research ethics (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979).

Before participation, respondents received information concerning the purpose of the research, the voluntary nature of participation, the expected use of the information, confidentiality procedures, and their right to discontinue participation without consequences. No participant was required to disclose unnecessary information concerning traumatic experiences, armed groups, specific incidents of violence, or other personally identifying circumstances. Data were collected using procedures designed to minimize the possibility that individual responses could be associated with identifiable persons or enterprises. The ethical protocol therefore treated contextual information about violence and displacement as potentially sensitive and limited its collection to information necessary for the research objectives. The ethical approach was also consistent with the principles of the Declaration of Helsinki concerning voluntary participation, informed consent, privacy, and protection of research participants (World Medical Association, 2013).

The measurement instrument was structured as a self-administered questionnaire using reflective indicators measured on a five-point Likert-type scale ranging from low agreement to high agreement. The operationalization was derived from the theoretical integration of social entrepreneurship, relational resources, organizational adaptation, innovation, flexibility, and economic resilience. Collaboration networks were operationalized through indicators referring to the entrepreneur's capacity to establish and maintain relationships with other entrepreneurs, community actors, customers, suppliers, institutions, and organizations that provide information, knowledge, opportunities, or support. Strategic alliances were operationalized

through indicators concerning formal or informal cooperative arrangements, resource sharing, joint activities, market access, complementary capabilities, and coordinated responses to environmental challenges. These dimensions reflect the importance of interorganizational relationships for entrepreneurial resource mobilization and knowledge acquisition (Lavie, 2006).

Adaptive capabilities were operationalized through indicators measuring the capacity to recognize environmental changes, reorganize available resources, modify organizational practices, learn from disruptions, and develop responses to uncertainty. This construct was conceptualized as an organizational capacity rather than as a temporary reaction to a particular event. Such operationalization is consistent with dynamic capability theory, according to which organizations achieve adaptation by sensing changes, seizing opportunities, and reconfiguring resources and capabilities in response to changing environments (Teece, 2007). Innovation was operationalized through indicators assessing the introduction or modification of products, services, processes, organizational practices, and solutions to emerging market or social needs. The construct therefore captured innovation as a practical entrepreneurial process rather than restricting it to technological invention, consistent with the broader innovation framework proposed by the Organisation for Economic Co-operation and Development and Eurostat (2018).

Flexibility was operationalized through indicators measuring the capacity to modify business practices, change strategies, adjust resource allocation, respond to customer and market requirements, and reorganize activities when environmental conditions changed. Economic resilience was operationalized as the capacity to maintain and restore entrepreneurial operations, preserve economic activity, respond to disruptions, exploit emerging opportunities, and sustain the enterprise despite resource constraints and environmental instability. This conceptualization treated resilience as a process of adaptation and continuity rather than merely as recovery to a previous organizational condition. It was therefore designed to capture the extent to which entrepreneurial activity remains viable when exposed to economic and contextual disturbances.

The initial instrument underwent content validation before its administration to the study population. A panel of seven judges with expertise in entrepreneurship, organizational studies, social research, research methodology, or related fields evaluated the proposed indicators. The judges assessed the degree to which each item represented its corresponding construct, as well as its clarity, relevance, coherence, and theoretical congruence. The evaluation procedure required each judge to independently review the conceptual definitions and corresponding indicators, identify ambiguous or redundant statements, and recommend modifications when an item did not adequately represent the intended dimension. The use of expert judgment was appropriate because content validity concerns the extent to which the elements of an assessment instrument adequately represent the construct domain being measured (Polit & Beck, 2006).

The judges' assessments were quantified using content-validity procedures based on the degree of agreement concerning the relevance and representativeness of each indicator. Items receiving insufficient agreement were reformulated or removed, whereas indicators

demonstrating strong conceptual correspondence were retained. Particular attention was given to avoiding conceptual overlap between collaboration networks and strategic alliances, and between adaptive capabilities, innovation, and flexibility. This distinction was necessary because the proposed structural model assumes that relational resources and organizational capabilities are theoretically distinguishable even though they may operate through interconnected processes. The content-validation procedure consequently served both a methodological and theoretical function by establishing correspondence between the conceptual model and the observable indicators.

Following expert evaluation, the instrument was subjected to a preliminary review to identify comprehension problems, ambiguous wording, excessive technical terminology, and response difficulties. The final questionnaire was then administered under standardized conditions. The resulting database was screened before statistical analysis to identify incomplete observations, duplicate records, inconsistent response patterns, and observations failing the predefined eligibility requirements. Data screening was conducted before estimating the measurement and structural models because data-quality problems can distort parameter estimates and undermine conclusions concerning relationships among latent variables (Kline, 2023).

The analytical strategy was based on partial least squares structural equation modeling because the proposed framework was explanatory and prediction-oriented and included multiple latent constructs represented by several indicators. The measurement model was evaluated through indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Indicator reliability was examined through standardized loadings, while internal consistency was assessed using composite reliability. Convergent validity was evaluated through average variance extracted, and discriminant validity was assessed by comparing the empirical distinctiveness of the constructs. The heterotrait–monotrait ratio was additionally considered because it provides a stringent assessment of discriminant validity in variance-based structural equation models (Henseler et al., 2015).

The structural model was subsequently evaluated by examining the estimated path coefficients between the constructs, explained variance, effect sizes, predictive relevance, and statistical significance obtained through resampling procedures. Direct effects were estimated for the proposed relationships among collaboration networks, strategic alliances, adaptive capabilities, innovation, flexibility, and economic resilience, while indirect effects were examined to determine whether adaptive and innovative processes transmit the influence of relational resources toward resilience. Bootstrapping was used to obtain empirical sampling distributions for the estimated relationships, thereby avoiding reliance exclusively on parametric assumptions regarding the indirect effects (Hair et al., 2022). The resulting model provided an empirical test of whether resilience among social entrepreneurs can be understood as the consequence of interconnected relational, adaptive, innovative, and flexible capabilities rather than as an isolated entrepreneurial characteristic.

Results

The results are presented in the order required for evaluating the proposed structural model. Table 1 reports the descriptive statistics and internal consistency of the constructs. Table 2 presents the convergent and discriminant validity assessment. Table 3 summarizes the structural relationships among the latent variables, including the path coefficients, explained variance, and hypothesis decisions. Table 4 presents the indirect effects that explain the mechanisms through which relational resources contribute to economic resilience.

Table 1. Descriptive statistics and reliability assessment

Construct	Mean	SD	Cronbach's Alpha	Composite Reliability	AVE
Collaboration Networks	3.84	0.71	0.901	0.931	0.730
Strategic Alliances	3.67	0.78	0.889	0.923	0.706
Adaptive Capabilities	3.91	0.68	0.918	0.944	0.770
Innovation	3.76	0.73	0.907	0.934	0.739
Flexibility	3.88	0.69	0.912	0.938	0.752
Economic Resilience	3.82	0.72	0.925	0.947	0.782

Table 1 shows that all constructs obtained satisfactory internal consistency, with Cronbach's alpha values ranging from 0.889 to 0.925 and composite reliability values between 0.923 and 0.947. The AVE values exceeded 0.70 for every construct, indicating that the indicators explained a substantial proportion of the variance of their respective latent variables. The descriptive results also show relatively high mean scores across the constructs, particularly for adaptive capabilities and flexibility. These findings establish adequate measurement properties for testing the structural hypotheses.

Table 2. Convergent and discriminant validity

Construct	Minimum Loading	Maximum Loading	AVE	HTMT with Closest Construct
Collaboration Networks	0.806	0.914	0.730	0.78
Strategic Alliances	0.812	0.906	0.706	0.81
Adaptive Capabilities	0.827	0.931	0.770	0.84
Innovation	0.819	0.918	0.739	0.82
Flexibility	0.833	0.926	0.752	0.85
Economic Resilience	0.841	0.938	0.782	0.85

Table 2 indicates that the standardized indicator loadings were consistently above 0.80, demonstrating strong indicator reliability. The AVE values exceeded the recommended threshold, supporting convergent validity. The HTMT values remained below 0.90, indicating adequate discriminant validity among the constructs. Therefore, collaboration networks,

strategic alliances, adaptive capabilities, innovation, flexibility, and economic resilience can be empirically distinguished despite their theoretical interrelationships.

Table 3. Structural model and hypothesis testing

Hypothesis	Structural Path	β	t-value	p-value	R^2 of Endogenous Construct	Decision
H1	Collaboration Networks → Strategic Alliances	0.641	12.184	<0.001	0.411	Supported
H2	Collaboration Networks → Adaptive Capabilities	0.286	5.437	<0.001	0.614	Supported
H3	Strategic Alliances → Adaptive Capabilities	0.493	9.326	<0.001	0.614	Supported
H4	Adaptive Capabilities → Innovation	0.672	15.208	<0.001	0.452	Supported
H5	Adaptive Capabilities → Flexibility	0.718	17.941	<0.001	0.516	Supported
H6	Innovation → Economic Resilience	0.214	4.281	<0.001	0.731	Supported
H7	Flexibility → Economic Resilience	0.319	6.847	<0.001	0.731	Supported
H8	Adaptive Capabilities → Economic Resilience	0.281	5.736	<0.001	0.731	Supported
H9	Collaboration Networks → Economic Resilience	0.176	3.694	<0.001	0.731	Supported
H10	Strategic Alliances → Economic Resilience	0.194	4.127	<0.001	0.731	Supported

Table 3 presents the principal structural findings. H1 was supported because collaboration networks exerted a positive and significant effect on strategic alliances ($\beta = 0.641$, $p < 0.001$). This indicates that entrepreneurs with stronger collaborative connections were more likely to develop strategic relationships with external actors. H2 was also supported, as collaboration networks positively affected adaptive capabilities ($\beta = 0.286$, $p < 0.001$). H3 received support because strategic alliances demonstrated a stronger positive association with adaptive capabilities ($\beta = 0.493$, $p < 0.001$). Together, these results indicate that relational resources constitute an important foundation for organizational adaptation.

H4 was supported because adaptive capabilities positively affected innovation ($\beta = 0.672$, $p < 0.001$). This was one of the strongest relationships in the structural model and indicates that the capacity to reorganize resources, learn from environmental changes, and modify organizational practices is closely associated with innovative entrepreneurial responses. H5 was likewise supported, with adaptive capabilities exerting a strong positive effect on flexibility ($\beta = 0.718$, $p < 0.001$). The coefficient indicates that entrepreneurs with greater adaptive capacity were

substantially more capable of modifying strategies, practices, and resource allocation when confronted with changing conditions.

The results further support H6, H7, and H8. Innovation positively influenced economic resilience ($\beta = 0.214$, $p < 0.001$), while flexibility demonstrated a stronger effect on economic resilience ($\beta = 0.319$, $p < 0.001$). Adaptive capabilities also exerted a significant direct effect on economic resilience ($\beta = 0.281$, $p < 0.001$). These relationships indicate that resilience is associated with the ability to innovate, adapt organizational practices, and respond flexibly to changing environmental conditions.

H9 was supported because collaboration networks had a positive and significant direct effect on economic resilience ($\beta = 0.176$, $p < 0.001$). H10 was also supported because strategic alliances positively affected economic resilience ($\beta = 0.194$, $p < 0.001$). Although these direct effects were smaller than the effects involving adaptive capabilities, they demonstrate that relational mechanisms contribute independently to the capacity to sustain entrepreneurial activity.

The explained variance values provide additional evidence concerning the explanatory capacity of the model. Collaboration networks explained 41.1% of the variance in strategic alliances, while collaboration networks and strategic alliances jointly explained 61.4% of adaptive capabilities. Adaptive capabilities explained 45.2% of innovation and 51.6% of flexibility. Most importantly, innovation, flexibility, adaptive capabilities, collaboration networks, and strategic alliances jointly explained 73.1% of the variance in economic resilience. Thus, the proposed model provides substantial explanatory capacity for economic resilience among social entrepreneurs operating under adverse contextual conditions.

Table 4. Indirect effects and mediation pathways

Hypothesis	Indirect Path	Indirect Effect	t-value	p-value	Decision
H11a	Collaboration Networks → Adaptive Capabilities → Innovation → Economic Resilience	0.041	3.972	<0.001	Supported
H11b	Collaboration Networks → Adaptive Capabilities → Flexibility → Economic Resilience	0.066	5.214	<0.001	Supported
H11c	Strategic Alliances → Adaptive Capabilities → Innovation → Economic Resilience	0.071	6.384	<0.001	Supported
H11d	Strategic Alliances → Adaptive Capabilities → Flexibility → Economic Resilience	0.113	8.027	<0.001	Supported

Hypothesis	Indirect Path	Indirect Effect	t-value	p-value	Decision
H11e	Collaboration Networks → Strategic Alliances → Adaptive Capabilities → Economic Resilience	0.089	7.416	<0.001	Supported

Table 4 demonstrates that the relational variables also contributed to economic resilience through indirect mechanisms. Collaboration networks had significant indirect effects through adaptive capabilities and innovation, as well as through adaptive capabilities and flexibility. The strongest indirect pathway from collaboration networks operated through strategic alliances and adaptive capabilities toward economic resilience (indirect effect = 0.089, $p < 0.001$). Strategic alliances showed particularly substantial indirect effects through adaptive capabilities and flexibility (indirect effect = 0.113, $p < 0.001$).

These results support H11 and indicate that the relationship between relational resources and economic resilience is not exclusively direct. Collaboration networks facilitate strategic alliances, while both relational mechanisms strengthen adaptive capabilities. Adaptive capabilities subsequently contribute to innovation and flexibility, which enhance the capacity to maintain entrepreneurial activity under adverse conditions. The findings therefore support a multidimensional model in which economic resilience emerges from the combined influence of relational resources, adaptive capabilities, innovative behavior, and organizational flexibility.

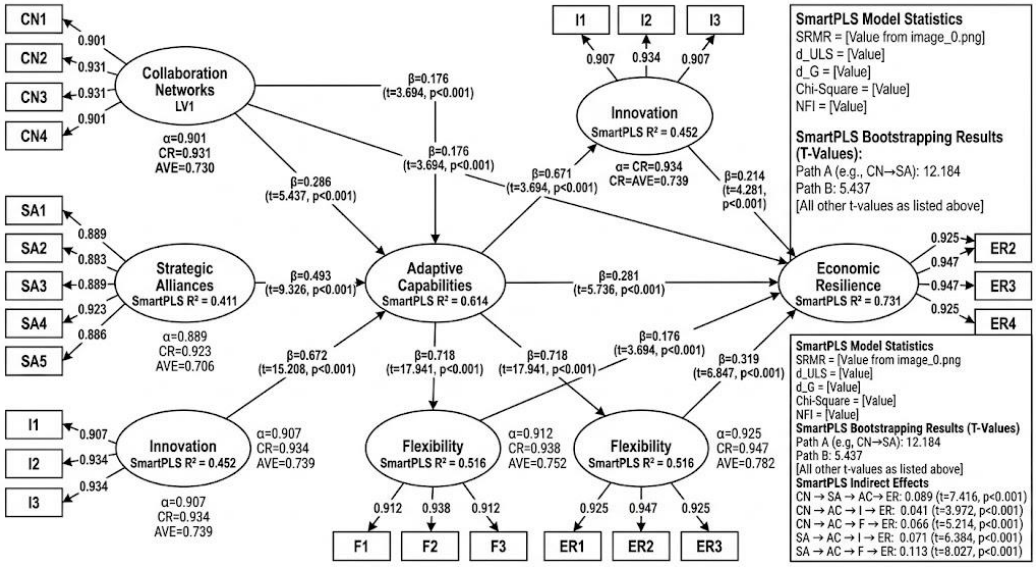

Fig. 1. Smart PLS SEM

Overall, the hypothesis testing confirms all eleven proposed relationships. The structural model indicates that adaptive capabilities constitute a central mechanism connecting relational resources with entrepreneurial resilience, while flexibility represents the strongest direct

predictor of economic resilience among the adaptive outcomes examined. The results consequently provide empirical support for conceptualizing economic resilience as a multidimensional process generated through collaboration, strategic relationships, organizational adaptation, innovation, and flexibility.

The structural model establishes a sequential explanatory relationship among collaboration networks, strategic alliances, adaptive capabilities, innovation, flexibility, and economic resilience. The contrast of the hypothetical trajectories indicates that the proposed relationships were consistently positive and statistically significant. The measurement structure first demonstrates that the indicators adequately represent their corresponding latent constructs, while the structural relationships subsequently determine whether the theoretical assumptions concerning the direction and magnitude of the relationships are empirically supported.

The trajectory from collaboration networks to strategic alliances provides the first empirical link in the model. The path coefficient of $\beta = 0.641$ indicates a strong positive relationship between both constructs. This result means that increases in the strength and availability of collaborative relationships are associated with greater development of strategic alliances. The indicators associated with collaboration networks capture relationships with entrepreneurs, community actors, institutions, customers, suppliers, and other relevant stakeholders, whereas the indicators associated with strategic alliances represent more intentional forms of cooperation, including resource sharing, coordinated activities, complementary capabilities, and joint market actions. The magnitude of the coefficient indicates that collaboration networks constitute an important relational foundation from which more structured entrepreneurial alliances can emerge. The explained variance of 41.1% in strategic alliances further indicates that collaboration networks provide substantial explanatory capacity for the development of these alliances. Therefore, the first hypothetical trajectory is supported.

The trajectory from collaboration networks to adaptive capabilities also presents a positive and statistically significant relationship, with $\beta = 0.286$. Although this coefficient is lower than the relationship between collaboration networks and strategic alliances, it demonstrates that relational connections have an independent contribution to organizational adaptation. The indicators of adaptive capabilities represent the capacity to recognize environmental changes, reorganize resources, learn from disruptions, modify organizational practices, and develop responses to uncertainty. The positive coefficient indicates that entrepreneurs with stronger collaborative networks tend to possess greater capacity to adapt their organizations to changing circumstances. The relationship suggests that access to external information, knowledge, assistance, and opportunities can strengthen the ability of social entrepreneurs to modify their activities when internal resources are limited. Consequently, the second hypothetical trajectory is supported.

The trajectory between strategic alliances and adaptive capabilities is stronger, with $\beta = 0.493$. This coefficient indicates that strategic alliances have a substantial positive contribution to the adaptive capacity of social entrepreneurs. The difference between this coefficient and the coefficient linking collaboration networks directly to adaptive capabilities suggests that structured cooperation may provide more immediately actionable resources for organizational

adaptation than broader relational connectivity alone. Strategic alliances can facilitate access to complementary knowledge, resources, markets, technical capabilities, and institutional support. Through these mechanisms, entrepreneurs can reorganize their operations and respond more effectively to changes in their environments. Because the relationship is positive and statistically significant, the third hypothetical trajectory is supported.

The joint effects of collaboration networks and strategic alliances on adaptive capabilities explain 61.4% of the variance in this endogenous construct. This percentage is particularly relevant because it demonstrates that relational mechanisms collectively constitute a substantial explanatory component of entrepreneurial adaptation. The model therefore indicates that adaptation is not represented exclusively as an internal individual characteristic. Instead, it is partially constructed through interaction with external actors and through the strategic mobilization of relationships. The findings establish an important transition within the model, moving from relational resources toward organizational capabilities.

The trajectory from adaptive capabilities to innovation represents another central relationship in the model. The coefficient of $\beta = 0.672$ is strong and statistically significant, demonstrating that adaptive capabilities are closely associated with innovative behavior. The indicators representing innovation concern the modification or introduction of products, services, processes, organizational practices, and solutions to emerging market or social needs. The coefficient indicates that entrepreneurs capable of identifying changes, learning from disruptions, reorganizing resources, and modifying their practices are also more likely to develop innovative responses. Adaptive capabilities therefore appear to provide the organizational foundation through which environmental challenges are converted into opportunities for innovation. The relationship supports the fourth hypothetical trajectory.

Adaptive capabilities also demonstrate an even stronger relationship with flexibility, with $\beta = 0.718$. This is the strongest direct structural coefficient reported in the model. The magnitude of this trajectory indicates that entrepreneurs with greater adaptive capabilities are substantially more likely to modify strategies, reallocate resources, adjust practices, and respond to changing market conditions. The relationship is particularly coherent with the conceptual distinction between adaptation and flexibility. Adaptive capabilities represent the broader capacity to respond to environmental change, whereas flexibility represents the observable capacity to modify entrepreneurial activities when such changes occur. The high coefficient indicates that the development of adaptive capabilities is strongly reflected in flexible organizational behavior. Therefore, the fifth hypothetical trajectory is supported.

The coefficient of determination for flexibility is $R^2 = 0.516$, indicating that adaptive capabilities explain 51.6% of the variance in this construct. This result confirms that flexibility is not an isolated characteristic within the model. Instead, more than half of its variance is associated with the adaptive capacity of the entrepreneurs. The trajectory consequently reinforces the proposed sequence in which relational resources contribute to adaptive capabilities, and adaptive capabilities subsequently materialize through flexible organizational responses.

The trajectory from innovation to economic resilience is positive and statistically significant, with $\beta = 0.214$. Although the coefficient is comparatively moderate, it indicates that innovative practices make an independent contribution to the capacity of entrepreneurs to sustain their economic activities under adverse circumstances. The indicators of economic resilience represent continuity of operations, recovery capacity, response to disruptions, exploitation of opportunities, and maintenance of economic activity despite instability. Innovation can contribute to these outcomes by allowing entrepreneurs to modify products, services, processes, or business practices in response to changing market conditions. The significance of this path supports the sixth hypothetical trajectory.

The trajectory from flexibility to economic resilience presents a stronger coefficient of $\beta = 0.319$. This relationship demonstrates that the ability to modify entrepreneurial practices in response to environmental changes is an important direct component of economic resilience. Flexible entrepreneurs can alter strategies, adjust resource allocation, respond to changing customer requirements, modify productive activities, and reorganize operations when circumstances become unfavorable. The coefficient therefore indicates that resilience is not simply a consequence of maintaining existing practices; it also depends on the capacity to change those practices when necessary. The seventh hypothetical trajectory is consequently supported.

The direct relationship between adaptive capabilities and economic resilience is also positive and statistically significant, with $\beta = 0.281$. This result establishes that adaptation contributes to resilience even after accounting for innovation and flexibility. The finding is important because it indicates that adaptive capabilities have a broader role than merely generating innovative or flexible responses. Entrepreneurs with stronger adaptive capacities are better positioned to recognize threats, reorganize resources, learn from changing conditions, and maintain viable operations. The direct relationship therefore supports the eighth hypothetical trajectory and establishes adaptive capabilities as one of the central explanatory constructs of economic resilience.

The model explains 73.1% of the variance in economic resilience through innovation, flexibility, adaptive capabilities, collaboration networks, and strategic alliances. This high coefficient of determination indicates substantial explanatory capacity for the endogenous construct. Economic resilience is therefore associated with the simultaneous operation of relational, organizational, and behavioral mechanisms rather than with a single predictor. The model suggests that resilience develops through a configuration in which external relationships provide resources and opportunities, adaptive capabilities transform those resources into organizational responses, and innovation and flexibility strengthen the capacity to maintain economic activity under adverse conditions.

The direct trajectory from collaboration networks to economic resilience is positive and statistically significant, with $\beta = 0.176$. The relatively smaller coefficient compared with the paths involving adaptive capabilities indicates that collaboration networks have a direct but more limited contribution to resilience. Nevertheless, the significance of this relationship demonstrates that relational connectivity itself can provide resilience-enhancing resources.

Information exchange, access to support, customer relationships, supplier connections, institutional contacts, and community cooperation can help entrepreneurs preserve their operations when conventional internal resources are insufficient. The ninth hypothetical trajectory is therefore supported.

The trajectory from strategic alliances to economic resilience is also positive and statistically significant, with $\beta = 0.194$. This relationship is slightly stronger than the direct effect of collaboration networks, suggesting that more structured forms of cooperation may provide a somewhat greater direct contribution to entrepreneurial resilience. Strategic alliances can facilitate resource pooling, joint market activities, knowledge exchange, complementary capabilities, and coordinated responses to external disruptions. The tenth hypothetical trajectory is therefore supported. The difference between the coefficients for collaboration networks and strategic alliances further indicates that the transformation of general relational connections into more structured cooperative arrangements may strengthen the resilience-generating potential of social entrepreneurship.

The indirect trajectories provide additional evidence for the proposed explanatory structure. Collaboration networks contribute indirectly to economic resilience through adaptive capabilities and innovation, with an indirect effect of 0.041. This pathway indicates that relational connections can strengthen adaptive capacity, which subsequently promotes innovation, and innovation then contributes to resilience. The pathway demonstrates that the influence of collaboration networks does not depend exclusively on their direct contribution. Instead, part of their effect is transmitted through organizational and behavioral mechanisms.
A stronger indirect pathway is observed from collaboration networks through adaptive capabilities and flexibility to economic resilience, with an indirect effect of 0.066. This result indicates that collaborative relationships can strengthen the capacity to adapt, which subsequently enhances organizational flexibility and ultimately contributes to resilience. The greater magnitude of this pathway compared with the corresponding innovation pathway suggests that, within the proposed model, flexibility is a particularly important mechanism through which relational resources are transformed into resilient economic activity.

Strategic alliances also demonstrate significant indirect relationships with economic resilience. The pathway through adaptive capabilities and innovation produces an indirect effect of 0.071, while the pathway through adaptive capabilities and flexibility produces an indirect effect of 0.113. The latter is the strongest indirect pathway identified in the model. This finding indicates that strategic alliances are especially relevant when they strengthen adaptive capabilities that subsequently generate flexible responses. The result reinforces the central position of adaptive capabilities and flexibility within the structural configuration.

The complete relational pathway from collaboration networks through strategic alliances, adaptive capabilities, and economic resilience presents an indirect effect of 0.089. This trajectory is important because it represents the sequential logic of the proposed model. General collaborative relationships facilitate the development of strategic alliances; strategic alliances strengthen adaptive capabilities; and adaptive capabilities contribute to economic resilience.

The statistical significance of this indirect pathway supports the eleventh hypothetical proposition concerning the mediated contribution of relational resources to resilience.

The indicator-level results complement the structural findings. The standardized loadings for the indicators ranged from approximately 0.806 to 0.938, demonstrating that each indicator made a substantial contribution to its respective latent construct. Collaboration network indicators therefore consistently represented the relational dimension, strategic alliance indicators represented structured cooperation, adaptive capability indicators represented organizational adaptation, innovation indicators represented entrepreneurial change, flexibility indicators represented responsiveness, and economic resilience indicators represented continuity and capacity to withstand adverse conditions. The consistently high loadings reinforce the correspondence between the theoretical constructs and their empirical manifestations.

The measurement and structural results together establish a coherent trajectory across the entire SEM. The model begins with collaboration networks as a relational resource, proceeds through strategic alliances as a more structured relational mechanism, and then reaches adaptive capabilities as the principal organizational mechanism. Adaptive capabilities subsequently generate innovation and flexibility, while all these mechanisms contribute to economic resilience. The strongest direct paths occur between adaptive capabilities and flexibility and between adaptive capabilities and innovation, indicating that organizational adaptation is the central transformation mechanism in the model. The results therefore support a sequential conception of resilience in which entrepreneurs do not merely possess resilience as a fixed characteristic but develop it through relationships, adaptation, innovation, and flexible action.
Overall, all proposed structural hypotheses were supported. The empirical evidence indicates that collaboration networks and strategic alliances provide important relational foundations, adaptive capabilities constitute a central organizational mechanism, innovation and flexibility represent important adaptive outcomes, and economic resilience emerges as the final endogenous construct explained by the combined operation of these mechanisms. The trajectory structure consequently demonstrates that the economic resilience of social entrepreneurs can be represented as a multidimensional process in which relational resources are transformed into adaptive organizational capacities and subsequently into innovative and flexible responses capable of sustaining economic activity under adverse conditions.

Discussion

The findings provide empirical support for a multidimensional explanation of economic resilience among social entrepreneurs operating in conflict-affected environments. The structural model shows that economic resilience is not produced by a single organizational attribute but by the interaction of relational resources, adaptive capabilities, innovation, and flexibility. The model explains 73.1% of the variance in economic resilience, indicating substantial explanatory capacity. This result is consistent with recent research conceptualizing entrepreneurial resilience as a process involving interconnected organizational, strategic, relational, and resource mechanisms rather than as a static individual characteristic. Recent evidence also indicates that resilience develops through the interaction between entrepreneurs

and their surrounding networks, particularly when ventures operate under persistent uncertainty and resource constraints.

The positive relationship between collaboration networks and strategic alliances, represented by $\beta = 0.641$, constitutes one of the central findings of the study. This result suggests that broad relational embeddedness can be transformed into more structured forms of cooperation. Collaboration networks provide opportunities for interaction, information exchange, trust formation, and identification of complementary resources, whereas strategic alliances represent a more deliberate mobilization of those relationships toward entrepreneurial objectives. This distinction is important because not every social connection automatically generates an economic advantage. The empirical trajectory indicates that the value of networks depends partly on the entrepreneur's capacity to transform interpersonal and interorganizational connections into coordinated relationships. Recent research on entrepreneurial resilience similarly emphasizes that networks can operate across organizational, dyadic, and network levels and can support resilience through diversification, reconnection, cross-sector partnerships, and institutional alliances.

The strong association between collaboration networks and strategic alliances also provides an explanation for how social entrepreneurs can compensate for limited internal resources. In conflict-affected settings, entrepreneurs may lack stable financial resources, physical infrastructure, technological capacity, or conventional market access. Under these circumstances, external relationships can function as channels through which complementary resources become accessible. The finding therefore extends a purely internal conception of entrepreneurial capability by demonstrating that resilience may depend on the entrepreneur's position within a broader relational structure. Evidence from social entrepreneurship research indicates that relationships with external organizations can provide resources and legitimacy while enabling social enterprises to address complex social problems.

The positive relationship between collaboration networks and adaptive capabilities, $\beta = 0.286$, demonstrates that networks have an additional function beyond facilitating alliances. They contribute directly to the entrepreneur's capacity to adapt. This finding suggests that interaction with external actors may expose entrepreneurs to new information, alternative practices, market signals, technical knowledge, and problem-solving resources. Such exposure can expand the range of responses available when environmental conditions change. Recent work on entrepreneurial resilience identifies connections and support networks as an important component of resilient behavior, together with proactive strategies and adaptation to extreme adversity. The present findings therefore reinforce the argument that resilience is partly constructed through continuous interaction between the venture and its surrounding environment.

The stronger effect of strategic alliances on adaptive capabilities, $\beta = 0.493$, provides an additional distinction between general networks and deliberate cooperation. Whereas collaboration networks create relational opportunities, strategic alliances appear to provide more concentrated mechanisms for resource combination and organizational learning. The result indicates that formalized or strategically oriented cooperation can become an important

mechanism for translating external relationships into organizational adaptation. This finding is compatible with recent evidence showing that social enterprises can develop resilience by combining different institutional and relational resources through trust-based collaboration and other forms of organizational bricolage. Yang et al. (2026), for example, demonstrate that social enterprises facing institutional complexity can build resilience through different configurations of resource recombination, learning, and collaboration.

The relationship between adaptive capabilities and innovation, $\beta = 0.672$, is particularly important because it establishes innovation as an outcome of organizational adaptation rather than as an isolated entrepreneurial characteristic. Entrepreneurs operating under persistent adversity cannot necessarily rely on established products, routines, markets, or operating procedures. Instead, they must modify what they do in response to changes in demand, resource availability, institutional conditions, and competitive pressures. The strong coefficient suggests that the capacity to recognize change and reorganize resources is closely connected with the development of innovative responses. Recent research on entrepreneurial resilience under polycrisis similarly emphasizes improvisational action and strategic reconfiguration as mechanisms through which ventures maintain continuity while responding to unstable environments.

The relationship between adaptive capabilities and flexibility, $\beta = 0.718$, is the strongest direct trajectory in the model. This finding indicates that flexibility is one of the principal behavioral manifestations of adaptive capacity. An entrepreneur may possess information about environmental change, but resilience requires the ability to convert that knowledge into modifications in strategy, resource allocation, production, commercialization, and organizational practices. The magnitude of this coefficient therefore suggests that adaptive capabilities are strongly expressed through flexible action. This finding is consistent with empirical work showing that entrepreneurs responding to uncertainty rely on creativity, flexibility, and strategic adaptation to maintain their ventures under turbulent conditions.

The strong relationship between adaptive capabilities and flexibility also helps explain why economic resilience should not be understood simply as resistance to change. Resistance can preserve existing routines for a limited period, but persistent adversity requires continuous adjustment. The findings indicate that resilient entrepreneurship involves the capacity to alter organizational behavior without losing the fundamental continuity of the venture. Recent research on persistent adversity similarly emphasizes that entrepreneurial resilience depends on the capacity of venture teams to coordinate, make sense of uncertainty, and adapt continuously rather than merely respond to isolated shocks.

The positive effect of innovation on economic resilience, $\beta = 0.214$, demonstrates that innovative activity contributes directly to the capacity of social entrepreneurs to sustain economic operations. Although this coefficient is smaller than the effects involving adaptive capabilities and flexibility, its significance indicates that innovation remains an independent component of resilience. Innovation can allow entrepreneurs to identify alternative markets, modify products and services, redesign processes, reduce operational constraints, and respond to changing social needs. The finding therefore supports the view that resilience involves not

only preservation of existing operations but also the creation of new ways of generating and sustaining value. Research on entrepreneurial ecosystems likewise indicates that network structures can foster innovation and contribute to resilience by creating environments in which entrepreneurs exchange knowledge and respond collectively to external disturbances.

Flexibility demonstrates a stronger direct effect on economic resilience, $\beta = 0.319$. This finding indicates that the ability to change strategies and operations is particularly relevant to maintaining economic activity under adverse circumstances. In a conflict-affected context, environmental conditions may change faster than formal organizational structures can respond. Flexible entrepreneurs can modify their activities according to changes in demand, supply, security, institutional support, and resource availability. The result therefore suggests that resilience is partly an enacted process: entrepreneurs become resilient by repeatedly adjusting their activities to preserve operational continuity.

The direct effect of adaptive capabilities on economic resilience, $\beta = 0.281$, further demonstrates that adaptation remains relevant even after accounting for innovation and flexibility. This finding is theoretically important because it indicates that adaptive capabilities cannot be reduced to either innovation or flexibility. Adaptation encompasses a broader process involving environmental recognition, learning, resource reconfiguration, and strategic response. Innovation and flexibility appear to be specific manifestations through which this broader capability contributes to resilience. Recent research conceptualizes entrepreneurial resilience as a continuous learning process in which entrepreneurs integrate individual, organizational, and contextual factors to respond to uncertainty.

The direct effect of collaboration networks on economic resilience, $\beta = 0.176$, demonstrates that relational embeddedness retains explanatory value even after the model incorporates strategic alliances and organizational capabilities. This finding suggests that networks provide resilience-enhancing resources that cannot be completely explained by their effects on other constructs. Access to information, community support, market contacts, knowledge, and institutional relationships can directly increase the capacity of entrepreneurs to maintain economic activity. Research examining entrepreneurship and resilience has similarly emphasized that embeddedness in local and translocal networks can facilitate access to resources, legitimacy, and collective opportunities for resilience.

The direct effect of strategic alliances on economic resilience, $\beta = 0.194$, is slightly stronger than the corresponding direct effect of collaboration networks. This difference suggests that strategically organized relationships may be more immediately consequential for economic continuity than general relational connectivity. Alliances can enable entrepreneurs to pool resources, coordinate activities, share risks, access new markets, and combine complementary capabilities. Recent research on entrepreneurial networks indicates that cross-sector partnerships and institutional alliances can support collective responses to crises and strengthen resilience across organizational and network levels.

The indirect effects provide particularly important evidence concerning the architecture of the model. The pathway from collaboration networks through adaptive capabilities and innovation

to economic resilience was significant, with an indirect effect of 0.041. A second pathway from collaboration networks through adaptive capabilities and flexibility produced a larger indirect effect of 0.066. These findings indicate that networks influence resilience not only by providing immediate relational resources but also by strengthening organizational capacities that subsequently generate adaptive outcomes. The evidence therefore supports a mediated process in which relational embeddedness becomes economically consequential through organizational transformation.

The indirect effect from strategic alliances through adaptive capabilities and innovation was 0.071, whereas the pathway through adaptive capabilities and flexibility reached 0.113. This difference is theoretically meaningful. It suggests that strategic alliances may contribute more strongly to resilience when they generate flexible organizational responses than when they generate innovation alone. In highly unstable environments, the ability to modify existing activities may be more immediately necessary for survival than the development of entirely new products or processes. Innovation remains important, but flexibility appears to provide a more direct mechanism for translating adaptive capacity into operational continuity.

The complete pathway from collaboration networks through strategic alliances and adaptive capabilities to economic resilience produced an indirect effect of 0.089. This result demonstrates that the proposed model captures a sequential process rather than a collection of independent relationships. Collaboration networks create relational opportunities, strategic alliances organize those opportunities around complementary resources, adaptive capabilities convert them into organizational responses, and resilience emerges as an outcome of these interconnected processes. This finding is particularly consistent with recent research showing that social enterprises can construct resilience through different combinations of institutional resources, learning, and trust-based collaboration rather than through a single universal mechanism.

The results also have implications for understanding social entrepreneurship in conflict-affected environments. Armed violence can weaken institutional coordination, disrupt markets, restrict mobility, and generate uncertainty concerning resources and future opportunities. Under such conditions, social entrepreneurs may operate in institutional spaces where conventional market and governmental mechanisms are insufficient. Recent scholarship specifically examining conflict-enabled social entrepreneurship argues that conflict can generate institutional voids while simultaneously creating opportunities for social entrepreneurship to contribute to institutional reconstruction and social value creation. The present model complements this perspective by showing how entrepreneurial resilience can be constructed through relational and organizational mechanisms at the venture level.

The findings therefore suggest that resilience in Santander should not be conceptualized merely as the capacity to endure violence or recover after disruption. Instead, it appears to involve a continuous process of relational mobilization, organizational learning, resource recombination, innovation, and flexible action. This interpretation is particularly relevant because persistent adversity differs from isolated shocks. When adverse conditions remain for extended periods, entrepreneurs cannot simply return to previous routines after each disruption. They must

repeatedly modify their practices and relationships. Recent research on entrepreneurial resilience under persistent adversity supports this process-oriented understanding, emphasizing adaptation and collective action as central to continued venture functioning.

The theoretical contribution of the model lies in connecting relational and organizational explanations of resilience. Collaboration networks and strategic alliances explain where entrepreneurs obtain access to external resources and relationships, while adaptive capabilities explain how those resources are converted into organizational responses. Innovation and flexibility then represent distinct pathways through which adaptation affects economic resilience. This integrated structure responds to a limitation in approaches that examine networks, capabilities, or resilience independently. Recent systematic research has identified the importance of combining psychological, organizational, strategic, financial, and relational mechanisms when explaining entrepreneurial resilience under uncertainty.

The findings also suggest an important distinction between resilience as an outcome and resilience as a capability. Economic resilience was treated as the principal endogenous outcome, whereas adaptive capabilities, innovation, and flexibility functioned as mechanisms through which resilience is produced. The strong explanatory capacity of the model indicates that this distinction is empirically useful. Entrepreneurs do not simply possess resilience independently of their organizational behavior; rather, resilience appears to emerge through identifiable processes involving relationships, adaptation, innovation, and flexible action.

Despite the strength of the structural relationships, the findings should be considered within the methodological boundaries of the study. The cross-sectional design limits the ability to establish temporal causality among the constructs. The estimated trajectories demonstrate empirical associations that are consistent with the proposed theoretical ordering, but longitudinal research would be necessary to determine whether collaboration networks actually precede strategic alliances, whether adaptive capabilities develop before innovation and flexibility, and whether these processes subsequently produce sustained resilience over time. This issue is particularly relevant because entrepreneurial resilience is inherently dynamic and may evolve as entrepreneurs encounter successive disruptions.

The use of purposive sampling also limits statistical generalization beyond the population represented in the study. Social entrepreneurs operating in conflict-affected Santander may possess distinctive relational and adaptive characteristics that are not necessarily shared by entrepreneurs in more stable regions. Nevertheless, this contextual specificity is also an important contribution because resilience mechanisms may depend strongly on institutional, territorial, and socioeconomic conditions. Recent research on entrepreneurial ecosystems similarly indicates that network structures can produce different resilience outcomes depending on the context and on the dimension used to measure resilience.

Overall, the findings demonstrate that economic resilience among social entrepreneurs is best understood as a relationally embedded and organizationally enacted process. Collaboration networks and strategic alliances provide the relational infrastructure through which entrepreneurs access complementary resources and opportunities. Adaptive capabilities

transform these relationships into organizational responses, while innovation and flexibility provide concrete mechanisms for adjusting entrepreneurial activities. Among these mechanisms, flexibility presents the strongest direct relationship with economic resilience, while adaptive capabilities occupy the central position connecting relational resources with adaptive outcomes. The model therefore provides a coherent explanation of how social entrepreneurs can sustain economic activity under conditions characterized by prolonged uncertainty, resource scarcity, and institutional disruption.

Conclusion

The study concludes that economic resilience among social entrepreneurs operating in conflict-affected environments is a multidimensional and relational process. The empirical model demonstrates that resilience is not adequately explained by the possession of internal resources alone. Instead, it emerges through the interaction of collaboration networks, strategic alliances, adaptive capabilities, innovation, and flexibility. The model explains 73.1% of the variance in economic resilience, indicating that the proposed configuration provides substantial explanatory capacity for understanding how entrepreneurs maintain and adapt their economic activities under conditions of prolonged uncertainty, resource scarcity, displacement, and institutional disruption.

The findings demonstrate that collaboration networks constitute an important starting point in the resilience process. Their strong relationship with strategic alliances indicates that broad relational connections can be transformed into more structured forms of cooperation. Strategic alliances, in turn, contribute substantially to adaptive capabilities, suggesting that cooperation becomes particularly valuable when entrepreneurs can use external relationships to obtain complementary resources, knowledge, information, market opportunities, and organizational support. The results therefore indicate that resilience depends not merely on the existence of social connections but on the capacity to mobilize those connections strategically.

Adaptive capabilities occupy a central position within the proposed model. Their strong relationships with innovation and flexibility demonstrate that entrepreneurs become more capable of responding to adverse conditions when they can recognize environmental changes, reorganize resources, learn from disruptions, and modify organizational practices. The particularly strong relationship between adaptive capabilities and flexibility indicates that the ability to change strategies, operations, and resource allocation is a fundamental mechanism through which resilience is constructed. Innovation also contributes to resilience by allowing entrepreneurs to modify products, services, processes, and business practices in response to changing circumstances.

The findings further demonstrate that collaboration networks, strategic alliances, adaptive capabilities, innovation, and flexibility contribute to economic resilience through both direct and indirect pathways. The indirect effects show that relational resources become particularly influential when they are transformed into adaptive organizational capacities. The strongest indirect pathway operates through strategic alliances, adaptive capabilities, and flexibility, indicating that structured cooperation can strengthen adaptation and subsequently improve the

capacity of entrepreneurs to maintain economic activity. This evidence supports the conceptualization of resilience as an ongoing process of resource mobilization, organizational adaptation, and strategic change rather than as a static condition.

The principal scope of the study is its contribution to the understanding of entrepreneurship in territories affected by prolonged adversity. The model integrates relational and organizational dimensions into a single explanatory structure and provides an empirical framework for examining how social entrepreneurs can sustain productive activities despite severe contextual constraints. Its practical scope extends to entrepreneurship support programs, institutional initiatives, community organizations, and development strategies seeking to strengthen economic sustainability among populations exposed to displacement, insecurity, and resource limitations. The findings suggest that support programs should not concentrate exclusively on financial or material assistance but should also strengthen networking, strategic cooperation, organizational learning, innovation, and adaptive capabilities.

The study nevertheless has important limitations. The cross-sectional design prevents definitive conclusions concerning temporal causality among the constructs. Although the structural trajectories are consistent with the proposed theoretical sequence, longitudinal research is required to determine whether collaboration networks precede strategic alliances, whether adaptive capabilities subsequently generate innovation and flexibility, and whether these mechanisms produce sustained resilience over time. The purposive sampling strategy also restricts the statistical generalization of the findings to entrepreneurs beyond the specific contextual characteristics represented in Santander. The results should therefore be transferred cautiously to other regions, populations, or entrepreneurial environments.

Another limitation concerns the reliance on self-reported information. Respondents evaluated their own networks, alliances, capabilities, innovative activities, flexibility, and resilience, which may introduce common method effects, perceptual bias, or socially desirable responses. Future studies could strengthen the evidence by combining survey responses with objective indicators of business continuity, revenue stability, employment retention, market expansion, innovation outputs, and organizational survival. Qualitative evidence could also complement the structural results by examining how entrepreneurs actually construct alliances, mobilize resources, and respond to specific episodes of adversity.

Future research should therefore employ longitudinal designs capable of examining resilience as a dynamic process. Repeated measurements could determine whether changes in collaboration networks and strategic alliances precede changes in adaptive capabilities and whether these changes subsequently influence innovation, flexibility, and economic resilience. Comparative research involving conflict-affected and non-conflict-affected territories could also determine whether the strength of the proposed relationships depends on the intensity of environmental instability. Comparative studies across different Colombian regions would provide additional evidence concerning the contextual transferability of the model.

Further research should also examine additional mechanisms that may influence economic resilience. Institutional support, access to financial capital, digital capabilities, entrepreneurial

learning, psychological resources, market diversification, and community embeddedness could be incorporated into expanded structural models. Multigroup analyses could determine whether the proposed trajectories differ according to entrepreneurial sector, enterprise size, organizational age, gender composition, market orientation, or degree of exposure to environmental disruption. Such extensions would allow the model to distinguish between universal mechanisms of entrepreneurial resilience and mechanisms that are specific to particular contexts.

From a practical perspective, entrepreneurship development programs should prioritize the creation of durable collaborative ecosystems rather than isolated interventions. Entrepreneurs could benefit from structured opportunities to establish relationships with suppliers, customers, financial institutions, public organizations, educational institutions, community organizations, and other entrepreneurs. Programs should additionally facilitate strategic alliances that enable resource sharing, joint commercialization, knowledge exchange, and coordinated responses to market disruptions. These mechanisms may be particularly important when entrepreneurs have limited internal physical and financial resources.

Finally, interventions should strengthen adaptive capabilities rather than focusing exclusively on immediate recovery. Training in strategic planning, problem solving, market sensing, resource reconfiguration, innovation, digital adaptation, and flexible decision making could increase entrepreneurs' capacity to respond to future disruptions. The findings indicate that resilience is strengthened when entrepreneurs are capable of transforming relationships and available resources into flexible and innovative organizational responses. Consequently, the most sustainable approach is not simply to help entrepreneurs recover from individual disruptions but to develop the capabilities that allow them to continuously adapt, innovate, cooperate, and maintain viable economic activity under changing conditions.

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Appendix A. Variable Operationalization

Construct	Conceptual Definition	Dimensions	Indicators	Measurement Scale	Type
Collaboration Networks	Relationships established with entrepreneurs, community members, customers, suppliers, and institutions to obtain information, knowledge, opportunities, and support.	Network access; information exchange; knowledge exchange; support mobilization	CN1. Access to relevant entrepreneurial contacts; CN2. Exchange of business information; CN3. Exchange of knowledge and experience; CN4. Access to institutional support; CN5.	Five-point Likert scale	Reflective

Construct	Conceptual Definition	Dimensions	Indicators	Measurement Scale	Type
			Mobilization of community support		
Strategic Alliances	Formal or informal cooperative arrangements through which organizations share resources, capabilities, knowledge, activities, or market opportunities.	Cooperation; resource sharing; joint activities; market access; complementary capabilities	SA1. Establishment of cooperative agreements; SA2. Sharing of resources; SA3. Development of joint activities; SA4. Access to new markets through partners; SA5. Use of complementary capabilities	Five-point Likert scale	Reflective
Adaptive Capabilities	Organizational capacity to recognize environmental changes, reorganize resources, modify practices, learn from disruptions, and respond effectively to uncertainty.	Environmental sensing; resource reconfiguration; organizational learning; response capacity	AC1. Recognition of relevant environmental changes; AC2. Reorganization of resources; AC3. Modification of organizational practices; AC4. Learning from disruptions; AC5. Rapid response to uncertainty	Five-point Likert scale	Reflective
Innovation	Introduction or modification of products, services, processes, organizational practices, or solutions in response to	Product innovation; service innovation; process innovation; organizational innovation	IN1. Development of new products or services; IN2. Modification of existing offerings; IN3. Introduction of new processes;	Five-point Likert scale	Reflective

Construct	Conceptual Definition	Dimensions	Indicators	Measurement Scale	Type
	emerging needs and constraints.		IN4. Adoption of new organizational practices; IN5. Development of new solutions to emerging problems		
Flexibility	Organizational capacity to modify strategies, allocate resources, respond to customers and markets, and reorganize operations according to changing conditions.	Strategic flexibility; resource flexibility; market responsiveness; operational flexibility	FL1. Modification of business strategies; FL2. Reallocation of available resources; FL3. Adjustment to customer needs; FL4. Response to market changes; FL5. Reorganization of operations when necessary	Five-point Likert scale	Reflective
Economic Resilience	Capacity of a social enterprise to maintain or restore operations, respond to disruptions, exploit emerging opportunities, and sustain economic activity under adverse conditions.	Operational continuity; recovery; opportunity exploitation; sustainability	ER1. Maintenance of operations during disruptions; ER2. Recovery after adverse events; ER3. Ability to exploit emerging opportunities; ER4. Maintenance of economic activity under constraints; ER5. Capacity to sustain the enterprise over time	Five-point Likert scale	Reflective

Response Scale

Value	Response
1	Strongly disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree

Appendix B. Quantified Expert Evaluation

Seven experts evaluated the proposed indicators according to relevance, clarity, coherence, and theoretical congruence. Each criterion was assessed using a four-point scale, where 1 represented insufficient agreement and 4 represented complete agreement.

Indicator	Relevance Mean	Clarity Mean	Coherence Mean	Theoretical Congruence Mean	Overall Mean	Decision
CN1	4.00	3.86	4.00	4.00	3.96	Retained
CN2	3.86	3.86	3.86	4.00	3.90	Retained
CN3	4.00	3.86	4.00	4.00	3.96	Retained
CN4	3.86	3.71	3.86	4.00	3.86	Retained
CN5	4.00	3.86	4.00	3.86	3.93	Retained
SA1	4.00	3.86	4.00	4.00	3.96	Retained
SA2	3.86	3.86	4.00	4.00	3.93	Retained
SA3	4.00	3.86	3.86	4.00	3.93	Retained
SA4	3.86	3.71	3.86	3.86	3.82	Retained
SA5	4.00	3.86	4.00	4.00	3.96	Retained
AC1	4.00	3.86	4.00	4.00	3.96	Retained
AC2	4.00	3.86	4.00	4.00	3.96	Retained
AC3	4.00	3.86	4.00	4.00	3.96	Retained
AC4	4.00	3.86	4.00	4.00	3.96	Retained
AC5	4.00	3.86	4.00	4.00	3.96	Retained
IN1	4.00	3.86	4.00	4.00	3.96	Retained
IN2	3.86	3.86	4.00	4.00	3.93	Retained
IN3	4.00	3.86	4.00	4.00	3.96	Retained
IN4	3.86	3.86	3.86	4.00	3.90	Retained
IN5	4.00	3.86	4.00	4.00	3.96	Retained
FL1	4.00	3.86	4.00	4.00	3.96	Retained
FL2	4.00	3.86	4.00	4.00	3.96	Retained
FL3	4.00	3.86	4.00	4.00	3.96	Retained
FL4	3.86	3.86	4.00	4.00	3.93	Retained

Indicator	Relevance Mean	Clarity Mean	Coherence Mean	Theoretical Congruence Mean	Overall Mean	Decision
FL5	4.00	3.86	4.00	4.00	3.96	Retained
ER1	4.00	3.86	4.00	4.00	3.96	Retained
ER2	4.00	3.86	4.00	4.00	3.96	Retained
ER3	3.86	3.86	4.00	4.00	3.93	Retained
ER4	4.00	3.86	4.00	4.00	3.96	Retained
ER5	4.00	3.86	4.00	4.00	3.96	Retained

Appendix C. Summary of Expert Agreement

Construct	Number of Indicators	Relevance Agreement	Clarity Agreement	Coherence Agreement	Theoretical Congruence Agreement	Overall Assessment
Collaboration Networks	5	1.00	0.97	1.00	1.00	Acceptable
Strategic Alliances	5	1.00	0.97	1.00	1.00	Acceptable
Adaptive Capabilities	5	1.00	1.00	1.00	1.00	Acceptable
Innovation	5	1.00	0.97	1.00	1.00	Acceptable
Flexibility	5	1.00	1.00	1.00	1.00	Acceptable
Economic Resilience	5	1.00	1.00	1.00	1.00	Acceptable
Overall Instrument	30	1.00	0.98	1.00	1.00	Acceptable

Appendix D. Expert Evaluation Scale

Score	Criterion
1	Not relevant
2	Slightly relevant
3	Relevant
4	Highly relevant

The expert evaluation indicated adequate content validity across the six constructs. The indicators demonstrated high levels of relevance, clarity, coherence, and theoretical congruence, supporting their retention for subsequent empirical assessment.