

Interdependence and Group Effectiveness in Entrepreneurial Ecosystems

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Abstract: This study examines the impact of interdependence on group effectiveness in entrepreneurial ecosystems (EEs). Relying on survey data from 156 entrepreneurial support organizations (ESOs) throughout the United States, the study finds that goal interdependence fosters effectiveness in EEs. The study did not find any evidence in support of task interdependence as a precursor for group effectiveness. Specifically, a unit change in goal interdependence leads to a 0.18 unit change in EEs effectiveness measured on a 5-point Likert scale. Interestingly, while the study shows that older ESOs are less effective, those belonging to older ecosystems generate better outcomes for their members; for each year in an EEs, ESOs see a 0.13 increase in effectiveness but a 0.05 decrease in effectiveness for each year the ESOs exist outside an EEs. The study demonstrates how shared leadership theories can further our understanding of collaborative, decentralized ecosystems like entrepreneurial ecosystems and identify antecedents for their effectiveness. The findings provide implications for policymakers aiming to develop solid entrepreneurial ecosystems by underscoring the importance of shared goals and communication channels and facilitating new entrants and synergies between older and newer ESOs.

Keywords: Entrepreneurial Ecosystems, Shared Leadership, Entrepreneurial Support Organizations, Interdependence, Group Effectiveness

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1. Introduction

The significance of a thriving class of entrepreneurs in enhancing a country's competitive advantage cannot be overstated. It is for this very reason that the notion of entrepreneurial ecosystems (EEs) has gained substantial attention from academics, policymakers, and practitioners in recent years (Acs et al. 2011; Spigel, 2017; WEF, 2014). Yet, achieving effective EEs has remained elusive partly due to the informal structures within them. As highlighted by Holmes et al. (2013), it is these informal institutions that interact with formal ones to play the role of the “invisible hand” that governs these ecosystems. Formal structures provide the framework and resources, while informal dynamics, often less visible but equally significant, shape the attitudes, behaviors, and relationships that underpin entrepreneurial activities.

Entrepreneurial ecosystems are specific areas or regions characterized by the presence of entrepreneurs, entrepreneurial support organizations (ESOs), and interconnected processes that collaborate to sustain and nurture entrepreneurship (Isenberg, 2011; Mason & Brown, 2014; Spigel, 2017; Stam, 2015). These ecosystems are a combination of the social, political, economic, and cultural elements of a region that work together to support various types of entrepreneurship (Spigel, 2017). EEs consist of networks and partnerships without designated leadership or hierarchical structures. Given the informal nature of its governance structures, what explains the varying effectiveness of different EEs? Effective EEs mean a thriving entrepreneurial class that creates value and increases a country's competitiveness. We rely on shared leadership (SL) theory to examine the relevance of different precursor conditions for an effective EE.

SL is a collective leadership theory that examines networks of leaders working together to accomplish a common goal or task. Because EEs involve informal networks and partnerships, without designated leadership or hierarchical structures (Harper-Anderson, 2018; Isenberg, 2011; Neck et al., 2004), SL offers an approach to better understand what drives the success or failure of EEs in creating a vibrant community of entrepreneurs. Understanding how SL operates within EEs can provide valuable insights into enhancing their effectiveness. It can inform policymakers and ecosystem builders about strategies to facilitate collaboration, knowledge sharing, and collective decision-making processes that promote the growth and competitiveness of the entrepreneurial class.

The relevance of EEs cannot be overemphasized. EEs generate prosperity partly due to public policies that strengthen innovation, business incubation, business conglomerates, competitiveness, and knowledge-based economies (Isenberg, 2011). Policymakers aim to create favorable conditions for entrepreneurs by supporting and encouraging EEs conducive to innovation and economic growth. In these ecosystems, entrepreneurs can access a range of resources and support services from ESOs, such as access to funding, business mentoring, and networking opportunities. A thriving EE contributes to the development of a region's economy and can lead to the creation of new jobs, increased business activity, and an improved standard of living for the community. By fostering a culture of entrepreneurship and innovation, EEs play a critical role in the creation of a knowledge-based economy, where entrepreneurship, technological innovation, and knowledge creation drive economic growth and development.

Though a relatively new concept, most definitions of EE touch on the importance of localized and interdependent relationships between various actors to drive entrepreneurial performance. The EE concept assumes that the social context of ecosystems allows or restricts entrepreneurship (Stam, 2015) by allowing actors to develop entrepreneurial ventures (Cohen, 2004) and creating value through the interdependence of actors (Acs et al., 2017; Soto-Rodriguez, 2015). The success of an EE depends on relationships among ESOs (Miller & Acs, 2017), making it critical that researchers and policy-makers understand these connections and interactions (Harper-Anderson, 2018; Motoyama & Watkins, 2014).

SL theory posits that the attainment of favorable outcomes hinges on the presence of particular precursor conditions. In the realm of this theoretical framework, two critical precursor conditions have emerged as focal points: interdependence and communication. These conditions are integral to understanding how ESOs function effectively within the context of EEs. Specifically, the current study investigates the intricate dynamics of interdependence and communication and their direct influence on the overall effectiveness of ESOs operating within the complex landscapes of EEs. By examining these interrelated elements, we aim to shed light on the mechanisms that underpin group effectiveness within ESOs, ultimately contributing to a deeper understanding of the broader EEs.

Based on a sample of 156 ESOs from 37 states, our results show that both communication and interdependence promote effective EEs. These are similar to previous studies on team

effectiveness. However, when we separate interdependence into its two components, goals and task, we find that only task interdependence consistently impacts ESO effectiveness. Interestingly, we find that while older ESOs are less effective, ESOs belonging to older EEs tend to be more effective. One possible explanation for this synergy is that older EEs have more experience and knowledge, which they can pass on to their ESOs. This can help ESOs to be more effective in their work. Additionally, older EEs may be more likely to provide their ESOs with the resources and support they need to succeed. Another possible explanation for the synergy between ESOs and EEs is that they have different strengths and weaknesses. ESOs are typically good at innovation and creativity, while EEs are typically good at execution and management. By working together, ESOs and EEs can complement each other's strengths and weaknesses, which can lead to greater effectiveness.

2. Related Literature

Shared leadership (SL) has emerged as an innovative, informal, and collaborative leadership theory originating from within collective groups (Contractor et al., 2012; Cox et al., 2003). Within this paradigm, individuals voluntarily engage with one another, pooling their distinctive competencies (Goksoy, 2016) and expertise to collaboratively address pressing concerns (Pearce et al., 2018; Raelin, 2016). It signifies a contemporary perspective on leadership, standing in stark contrast to traditional models rooted in formal relationships within bureaucratic structures. This transformation has been precipitated by the evolving nature of work, shifting from a production-centric approach to one that places a premium on knowledge and innovation (Fausing et al., 2013).

In complex organizations of today, leadership is increasingly perceived as a collective endeavor (Cullen-Lester & Yammarino, 2016). While individual leaders remain pivotal, leadership models that encompass the team context provide a more comprehensive framework for examining the expertise and capabilities present within a group (Day et al., 2004). Intriguingly, the existing literature largely neglects the intricate dynamics that unfold when teams are guided by multiple leaders (Mehra et al., 2006). This omission underscores the pressing need for a more nuanced understanding of teams and their leadership dynamics, encompassing the influence of team processes and the resultant outcomes (Crevani, 2018; Day et al., 2006).

Further, there is an urgent need for empirical research based on the theoretical underpinnings of SL theory as observed by Lord et al. (2017). The transition from traditional leadership theories to this contemporary, collective approach has reshaped the landscape of leadership research (Contractor et al., 2012; Day et al., 2004, 2006; Fausing et al., 2015; Pearce & Sims, 2002; Wang, Waldman, et al., 2014). Nevertheless, SL, being an evolving area of study, has outpaced empirical research (Cullen-Lester & Yammarino, 2016). Thus, exploring SL beyond the traditional organizational context, particularly within EEs is important. Most studies on SL have been conducted at the organizational level, necessitating a deeper exploration of its dynamics in less formal structures. Such exploration can yield invaluable insights into the intricate patterns of pluralized leadership in informal networks and help explain the capabilities necessary to navigate complex organizational systems (White et al., 2016). Likewise, scholars have also called for more research on the role of leadership in EEs (Harper-Anderson, 2018).

The SL framework suggests that certain precursor conditions lead to the development of shared leadership. While the development of SL generally depends on these precursor conditions, few studies examine these parts of SL (Fausing et al., 2015). Numerous precursor conditions and outcomes have been identified in the study of SL. Carson et al. (2007), for instance, find that both the internal team environment, consisting of shared purpose, social support, and voice, and external coaching were important predictors of shared leadership emergence among consulting teams. Teams with shared leadership were rated more effective by clients. Interdependence has been identified as a precursor condition of SL (Acs et al., 2017; Adner, 2017; Cullen-Lester & Yammarino, 2016; Fausing et al., 2015; Soto-Rodriguez, 2015; Spiegel, 2017). Friedrich et al. (2016) identify communication as the precursor condition of shared leadership that promotes the effectiveness of teams.

In teams, interdependence reflects a mutual dependency among members, each relying on the diverse skills and/or expertise of another (Friedrich et al., 2009; Lichtenstein et al., 2006; Raelin, 2016). While interdependence is inherent in team dynamics, it can be conceptualized as a spectrum, ranging from minimal interdependence to high interdependence (DeOrtentiis et al., 2013). At the low end of the spectrum, where there is a minimum amount of interdependence, the need for shared leadership (SL) is limited (Fausing et al., 2015; Pearce, 2004). This occurs when individuals' tasks are entirely independent, and team members are capable of making accurate

decisions without input from others (Mesmer-Magnus & DeChurch, 2009). However, in situations where interdependence and creativity are required for complex knowledge work, SL becomes crucial (Fausing et al., 2013; Pearce, 2004). In these contexts, SL can facilitate collaboration, information sharing, and collective decision-making, enabling teams to effectively navigate challenges, leverage diverse expertise, and generate innovative solutions.

Team communication is positively correlated with team performance (Marks et al., 2000; Marlow et al., 2018; Muethel et al., 2012). In collective organizational structures, where multiple independent decision-makers are involved, lateral communication becomes essential for sharing information (Konradt, 2014). As multiple leaders emerge within the team, a heightened degree of communication is required to distribute leadership functions and responsibilities among team members (Marlow et al., 2018). This enables coordination, collaboration, and the effective utilization of diverse perspectives and expertise. Additionally, when interdependence is higher, team sharing becomes more important in achieving the best outcomes (Lee et al., 2015a; Wageman & Baker, 1997). When team members recognize their interdependence and engage in effective communication, they are better able to share knowledge, resources, and insights. This promotes synergy, fosters collective problem-solving, and enhances overall team performance

In the context of the study, it is important to differentiate between task interdependence and goal interdependence. Task interdependence refers to the degree to which the tasks or activities of different entrepreneurial support organizations (ESOs) within entrepreneurial ecosystems (EEs) are interconnected and rely on each other. It relates to the extent to which ESOs depend on each other to complete their respective tasks or achieve their objectives. For example, if one ESO's activities directly affect or depend on the work of another ESO, there is a high level of task interdependence. Task interdependence emphasizes the coordination, collaboration, and mutual reliance between ESOs to accomplish their individual tasks effectively and contribute to the overall functioning of the ecosystem. On the other hand, goal interdependence refers to the degree to which ESOs within EEs share common goals, objectives, or desired outcomes. It focuses on the alignment of goals and the shared vision among the participating organizations. When ESOs operating within an EE have high goal interdependence, they work together towards a collective vision or common objectives. Goal interdependence emphasizes the shared purpose and direction that guide the actions and efforts of ESOs within the ecosystem.

Measuring the performance or output of EEs can be challenging, as no universally accepted measure exists. However, group effectiveness has emerged as a noteworthy outcome of SL and is often associated with improved team performance (Sangeetha & Kumaran, 2018). Group effectiveness, in this context, can be conceptualized as a multifaceted construct influenced by environmental factors, design factors, group processes, group psychosocial traits, and public policy. Therefore, assessing the effectiveness of an EE may provide a viable means of gauging its output and impact on the entrepreneurial landscape.

As discussed, antecedent variables are crucial drivers of SL and team effectiveness. Highly integrated and interconnected teams tend to outperform individual-centric approaches (Carson et al., 2007). Nevertheless, there is a noticeable gap in the empirical literature concerning the relationship between SL and interdependence (Fausang et al., 2015). This study seeks to bridge this gap by exploring the impact of interdependence on group effectiveness within the context of SL in EEs. Specifically, we aim to ascertain the degree to which interdependence is positively associated with group effectiveness. By unraveling the intricate link between interdependence and group effectiveness, our study contributes to the existing body of knowledge on SL and offers practical insights for the development and management of effective ESOs within EEs.

3. Research Setting and Sample

To determine the impact of interdependence on group effectiveness in EEs, the setting for this study is EEs across the United States. They consist of various stakeholders, called ESOs. These ESOs represent the general population of this study. Stakeholders within EEs have informal ties but work together in a network, to provide resources that support entrepreneurship (Harper-Anderson, 2018; Isenberg, 2011; Neck et al., 2004). Many ESOs also work as business incubators. Business incubators offer entrepreneurs various services, including mentoring, education, informal learning opportunities, or workspace (InBIA, 2017). They are situated in diverse types of locations (from small towns to large cities), and they generally work in concert with others (from investors to universities, to chambers of commerce). Therefore, they should have a good perspective of the relationships between the various ESOs within the EE. While there are various ESOs in EEs, business incubators are generally highly connected within the ecosystem as they assist entrepreneurs in locating resources. Stakeholders that are most affected by the performance of

teams should be used to evaluate them (Paul et al., 2016). Business incubators work as bridges within EEs (bridging prospective entrepreneurs with resources). Therefore, they were selected as an appropriate ESO to represent the target population in the study.

A survey-based design was conducted in this study. The instrument was designed and emailed to all ESOs in the United States. A G*Power analysis was run to determine the appropriate sample size for the study. Based on a 0.80 power, the sample should consist of at least 77 valid responses. Based on a 0.95 power, the sample should include at least 119 respondents (Appendix C), enhancing the study's robustness. The final sample comprised 156 ESOs. As highlighted by Carson et al. (2007), the concept of shared leadership demonstrates its effectiveness primarily within teams composed of knowledge-based employees. This effectiveness arises from the inherent inclination of individuals possessing advanced expertise and skills towards seeking autonomy in applying their specialized knowledge. Consequently, they actively seek increased opportunities to shape and engage in leadership functions within their respective groups. When examining the context of EEs, which encompass ESOs, a distinctive potential emerges. EEs often comprise diverse members, ESOs, with varied resources and capabilities. This diversity provides an ideal environment for pooling together a wide range of expertise and assets. Within such a collaborative ecosystem, shared leadership dynamics should naturally flourish and evolve. This perspective not only enriches the ongoing academic discourse concerning the relationship between shared leadership and team effectiveness but also enhances our comprehension of what constitutes effective EEs. It underscores the significance of collaborative leadership approaches within these complex and dynamic organizations, which, in turn, can contribute to their overall success and adaptability in a rapidly evolving field.

The data collection for this study was conducted over a four-week period. Participation was voluntary. A total of five hundred seventy-five (575) total responses were received from all over the country. Approximately 65% of the respondents were removed because they did not work with other entrepreneurial support organizations, and about 4% were removed because they did not agree to the terms of the informed consent. Some participants were also excluded due to incomplete survey submissions. After applying these screening and cleaning measures, a final sample of 156 viable responses remained for further analysis. These responses met the necessary

criteria and were deemed suitable for examining the relationship between interdependence and group effectiveness within the shared leadership context of entrepreneurial ecosystems.

4. Measures

The main outcome variable, group effectiveness, is an equally weighted mean of 26 measures of effectiveness. Group effectiveness was measured using the “Team Effectiveness” scale by Pearce and Sims (2002). This 26-item questionnaire uses a 5-point Likert scale and is based on a modified version of Ancona and Caldwell’s (1992) process and performance measures (as cited in Pearce & Sims, 2002). This method predicts group effectiveness at the group level. Questions that conceptualize SL at the group level resemble, “Our team works well together.” The group level may be more accurate than the individual level when predicting team effectiveness (Wang, Waldman, et al., 2014). Additionally, this scale has demonstrated validity and reliability, especially when it comes to validity for self-rating sources (Pearce & Sims, 2002). Therefore, it was selected as the most appropriate method for measuring the effectiveness of teams for this study. This scale is included in Appendix A.

Interdependence was measured using Fausing et al.’s (2015) *Interdependence* scale. It contains four items that examine both task and goal interdependence using a 5-point Likert scale. This scale was selected because the questions fit well in informal environments, like EEs. Many other interdependence scales include items more appropriate for formal environments, like work teams. This scale has demonstrated validity and reliability (Fausing et al., 2015); therefore, it was selected as the most appropriate method for measuring goal and task interdependence for this study. This scale is included in Appendix B. Each instrument was slightly modified to fit the study. Modifications did not change the meaning or purpose of the instrument. For example, when it comes to interdependence, items that read, “All the work I do is related to the goals of my team,” were reworded to, “All the work I do is related to the goals of my entrepreneurial ecosystem”. For effectiveness items that stated, for example, “The team is highly effective,” were reworded to say, “Our entrepreneurial ecosystem is very effective” (Appendix D & E).

Before analyzing data, it was screened to check for outliers and abnormal distribution patterns. Data were screened by browsing data tables after sorting, using the graphical exploration of distributions (box plots, histograms, and scatter plots), examining frequency distributions and

cross-tabulations, reviewing summary statistics, and using statistical outlier detection. A visual inspection of the predictor variable's scatterplot was conducted to test for homoscedasticity and linearity. Points within the scatterplot were spread out, which indicates that homoscedasticity exists. Additionally, no curves existed within the scatterplot, indicating linearity. A visual inspection of the predictor variable's histogram and P-P plot was conducted to test for normality. Based on these graphs, the data appear to be normally distributed.

Finally, the internal consistency reliability of the instruments used in the study was assessed. The Cronbach's alpha coefficients for the group effectiveness scale and the interdependence scale were calculated to evaluate the internal consistency of the items. The group effectiveness scale demonstrated a high level of internal consistency, with a Cronbach's alpha coefficient of .97. This indicates that the items measuring group effectiveness were highly reliable and consistent in capturing the construct. Similarly, the interdependence scale exhibited good internal consistency, with a Cronbach's alpha coefficient of .83. This suggests that the items assessing interdependence were also reliable and consistent in measuring the construct. Overall, the reliability coefficients for both scales fell within the range of very good to good, indicating the suitability of the data for further analysis.

Table 1: Variables used in the study

Variables	Description	Mean	Std. Dev.
Effectiveness	Equally weighted mean of 26 measures of effectiveness	4.01	0.72
Interdependence-tasks	Equally weighted mean of 2 measures on perceptions of working with others within an entrepreneurial ecosystem	3.58	1.04
Interdependence-goals	Equally weighted mean of 2 measures of goals alignment (organizational and individual)	3.87	1.01
Communication	Equally weighted mean of 10 measures of communication within the ecosystem	3.69	0.76
Entrepreneurial organizations	Indicator variable- number of entrepreneurial support organizations ESO works with (=0 if less than 10 and 1, otherwise)	1.06	1.34
Years of ESO	Number of years in ESO has operated	13.38	11.50

Years in EE	Number of years involved in an EE	5.92	5.21
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5. Model and Analysis

Our goal in this study is to establish the impact of a group’s interdependence on its effectiveness in the case of an entrepreneurial ecosystem. We posit that interdependence is positively associated with group effectiveness. As a result, we estimate a model with a general form

$$Y = \alpha + \beta X + W\delta + \varepsilon \quad (1)$$

where the variable Y is some measure of group effectiveness and X is a measure of independence within the ecosystem. The vector W is a vector of exogenous explanatory variables which include “*Cohesion*” and “*Communication*”.

We first consider a linear model that focuses on interdependence (tasks and goals) as the main precursor of Effectiveness. The results are presented in Model 1 of Table 2 with standard errors in parentheses. The dependent variable is “Effectiveness” measured as an equally weighted mean of 26 measures of group effectiveness in all models.

Table 2: Regression Results (with Effectiveness as the dependent variable)

Variable	Model 1	Model 2
Interdependence- task	0.099 (0.0691)	0.098 (0.0684)
Interdependence- goals	0.183*** (0.0710)	0.157** (0.0733)
Communication		0.097* (0.0501)
Number of organizations		-0.045 (0.0413)
Years of ESO		-0.053* (0.0273)
Years in ecosystem		0.129** (0.0544)
Constant	2.944***	2.763***

	(0.2222)	(0.238)
N	156	156
r^2	0.138	0.299
$r^2_{adjusted}$	0.126	0.264
F	12.24	9.08

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The independent variables of interest, Interdependence-task, and Interdependence-goals, are seen as key elements of group effectiveness. Each is computed as the simple weighted mean of two other measures. We can interpret the coefficient on Interdependence-goals in the first column as an increase of 1 in effectiveness is associated with 1.8 unit increase in interdependence on goals.

The OLS results indicate a positive and statistically significant relationship between goals interdependence and effectiveness across ESOs. The relationship is robust in both equations. An increase in goal interdependence across ESOs is associated with an increase in effectiveness. This result supports the notion that well-defined organizational goals lead to more attractive outcomes. An organization with no or poorly stated goals will see its members with more time and motive to pursue other self-interested goals. While task interdependence has the expected sign, it is not statistically significant.

In the second column of Table 2, we controlled for other variables that may affect effectiveness. In that scenario, Interdependence-goals remains statistically significant. We find that communication also has the expected sign and is statistically significant. Other variables, years in business and years in the ecosystem are also statistically significant. A surprising outcome is the negative sign of years in an EEs. It suggests that older entrepreneurial support organizations are less effective. This is very interesting as it suggests that newer entrepreneurial support organizations have a more positive impact on the effectiveness of EEs. The finding highlights the dynamic nature of entrepreneurial ecosystems, where fresh entrants may bring novel perspectives and approaches that enhance overall effectiveness. This insight provides valuable implications for understanding the evolving dynamics within EEs and the potential benefits associated with the involvement of newer entrepreneurial support organizations.

6. Conclusion and Recommendations

Shared leadership (SL) theory provides the foundational framework for this study, focusing on the relational processes, interdependencies, and collective influence within networks. The dispersed knowledge of team members is distributed in SL situations to take advantage of their expertise (Fausing et al., 2013, 2015). However optimal outcomes according to SL theory hinge on certain precursor conditions: interdependence, relational processes, and collective influence. These precursor conditions provide the foundation for shared leadership to emerge and thrive within a team or organization. By recognizing and fostering these conditions, leaders and organizations can promote shared decision-making, collaboration, and collective influence, ultimately leading to improved outcomes and effectiveness.

The results of this study indicated a weak positive relationship between interdependence and group effectiveness; with a correlation coefficient of 0.37. However, it is important to note that interdependency within teams can be common tasks, shared goals, or a combination of both. When we examine the different aspects of interdependence, namely task interdependence and goal interdependence, the results of our multiple regression analyses reveal that goal interdependence has a positive impact on group effectiveness. However, we did not find evidence in support of the notion that task interdependence promotes effectiveness. This suggests that when ESOs working towards shared goals perceive their work as more effective compared to groups that are merely collaborating to complete tasks without a shared goal. Thus, for any EE, it is important to emphasize the targets (ends) and not the processes (means) that lead to the targets.

In this study, the type of goal interdependence that exists within EEs was not studied. The type of goals shared in EEs may have impacted interdependence scores and their relationship with the outcome of group effectiveness. When answering the survey, instead of considering the collective goals of the EE, these ESOs may have considered the independent goals of their organizations. For example, assume an ESO answered a question about their goals based on their individual goals as opposed to the greater goal of developing entrepreneurs for an entire region. If EEs do not have collective goals, they may want to consider developing goals that extend beyond organizational goals. Furthermore, an ESO's own goal orientation can impact on other cooperative behavioral outcomes for the EEs, including communication and cohesion. Communication and cohesion are likely not as important when ESOs have competitive and independent goals.

A surprising outcome from our regression analysis is the negative sign of years in an EEs. It suggests that newer entrepreneurial support organizations have a more positive impact on the effectiveness of EEs. The finding highlights the dynamic nature of entrepreneurial ecosystems, where fresh entrants may bring novel perspectives and approaches that enhance overall effectiveness. This insight provides valuable implications for understanding the evolving dynamics within EEs and the potential benefits associated with the involvement of newer entrepreneurial support organizations. Therefore, any policies that enhance the mobility of ESOs into different EEs should be a priority for policymakers.

This study adds to the body of research that examines the outputs of EEs by investigating the relationship between precursor conditions and outcomes. It also adds to the conversation about the importance of precursor conditions of SL. Many studies exist that examine SL within formal organizations. However, studies that examine SL in informal teams are scarce. This study not only bridges this gap but also examines the effects of the individual components of interdependence on a team's effectiveness. This is particularly important because of the very informal structure of these EEs. There is currently no widely approved model for developing strong EEs. A better understanding of the elements of effective EEs would assist policymakers who work to develop strong entrepreneurial communities. Future researchers may want to also use objective measures of ESO or EE effectiveness such as jobs created or their economic impact.

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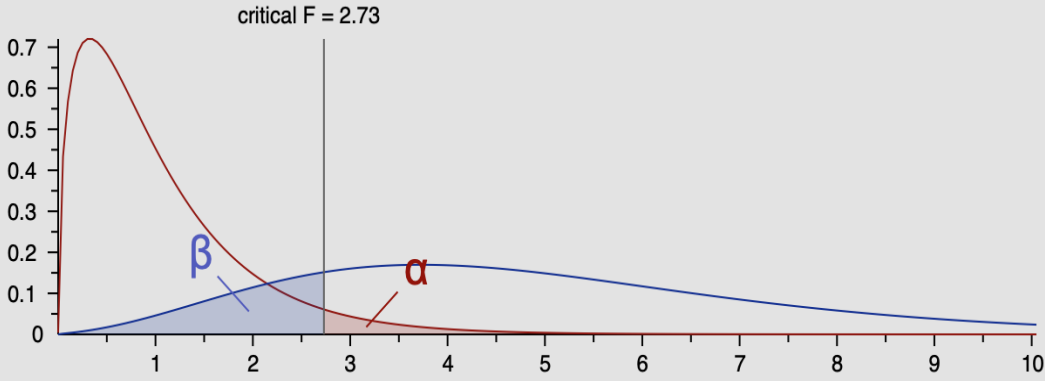
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Appendix C: G*Power Analysis

Central and noncentral distributions
Protocol of power analyses



Test family

F tests

Statistical test

Linear multiple regression: Fixed model, R² deviation from zero

Type of power analysis

A priori: Compute required sample size - given α, power, and effect size

Input parameters

Determine

Effect size f^2	0.15
α err prob	0.05
Power (1- β err prob)	0.8
Number of predictors	3

Output parameters

Noncentrality parameter λ	11.5500000
Critical F	2.7300187
Numerator df	3
Denominator df	73
Total sample size	77
Actual power	0.8017655

Appendix D: Modified Team Effectiveness Instrument

Response Scale: [1=definitely not true; 5 definitely true]

1 2 3 4 5

Definitely not true

Definitely true

1. Our entrepreneurial ecosystem delivers on its commitments.
2. Our entrepreneurial ecosystem delivers on its commitments on time.
3. Our entrepreneurial ecosystem provides a volume of work consistent with established standards.
4. Our entrepreneurial ecosystem is highly effective at implementing solutions.
5. Our entrepreneurial ecosystem delivers important changes.
6. The quality of our entrepreneurial ecosystem's output is very high.
7. Our entrepreneurial ecosystem members perform duties accurately and consistently.
8. Our entrepreneurial ecosystem eliminates root problems, not just symptoms.
9. Our entrepreneurial ecosystem faces new problems effectively.
10. Our entrepreneurial ecosystem changes behavior to meet the demands of the situation.
11. Our entrepreneurial ecosystem copes with change very well.
12. Our entrepreneurial ecosystem sets goals and priorities for maximum efficiency.
13. Our entrepreneurial ecosystem develops workable plans.
14. Our entrepreneurial ecosystem works on important problems.
15. Our entrepreneurial ecosystem has its priorities straight.
16. Our entrepreneurial ecosystem communicates its progress.
17. Our entrepreneurial ecosystem proactively communicates its progress.
18. Our entrepreneurial ecosystem keeps everyone informed.
19. Our entrepreneurial ecosystem keeps everyone informed on its progress.
20. Our entrepreneurial ecosystem's contribution to the region is very valuable.
21. Our entrepreneurial ecosystem makes valuable contributions to the region.
22. The contributions of our entrepreneurial ecosystem are very valuable to the region.
23. Our entrepreneurial ecosystem is highly effective.
24. Our entrepreneurial ecosystem is making very good progress toward its charter.
25. Our entrepreneurial ecosystem does very good work.
26. Our entrepreneurial ecosystem does a very good job.

