SHARED IDENTITIES AND ENTREPRENEURIAL ECOSYSTEM DYNAMICS: A SYSTEMATIC REVIEW FOR UNVEILING COLLABORATIVE PATHWAYS TO SUCCESS

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Abstract—Entrepreneurial ecosystems, as an artificial metaphor, have been extensively discussed. However, a comparable comprehensive review of the relationship between shared identity and the collaboration levels of entrepreneurial participants within Entrepreneurial Ecosystems (EE) is lacking. To address this gap, this paper employs the PRISMA method to systematically review literature on how shared identity relates to participant collaboration levels within EEs. Major databases were searched for studies published between 2016 and 2023. The screening of 10 selected papers indicates that shared identity impacts collaboration among EE participants through both top-down and bottom-up social dynamics, reflected respectively in institutions and social networks. We summarize the influence patterns revealed by these two paths into three aspects: information sharing, knowledge exchange, and resource circulation. These three aspects appear crucial in driving EE success. Findings reveal that research on building shared identity and its effect on participant collaboration remains fragmented. This study contributes to the literature by highlighting patterns and gaps in past research on how shared identity drives participant collaboration in EEs, providing insights for future research.

Keywords—Entrepreneurial Ecosystem; Shared Identity; Collaboration; Social Dynamics; Systematic Review; PRISMA Method; Social Networks; Institutional Theory

I. INTRODUCTION

The Entrepreneurial Ecosystem (EE) is an autonomous community where individuals from diverse organizations gather to engage in entrepreneurial activities, operating through both top-down and bottom-up processes【1】. A successful EE facilitates collaboration among regional organizations to sustain vibrant local entrepreneurial activity【2】. Termed an "artificial metaphor," the EE lacks clear boundaries and species as in natural ecosystems, being driven instead by subjective consciousness【3】. Consequently, the EE is neither isolated nor static, underscoring the dynamism and socialization of actors in entrepreneurial processes. For instance, research on Seattle's EE reveals stage-specific variations in cohesion and collaboration among participants【4】, while an experiential summary of a Southeastern U.S. city's EE highlights hierarchical performance differences based on the maturity of social networks【5】.

This dynamism and socialization collectively shape the EE's autonomous level, termed the "social dynamic"【6】. Positive social dynamics foster collaboration among actors in entrepreneurial actions. For example, participants in specific contexts and industries within an EE can organize more effectively toward a common vision through knowledge dissemination, patented technologies, and experience sharing【7】. Additionally, frequent interactions among EE participants are essential to ensure effective creation, flow, and circulation of resources, thereby maintaining robust social networks【8】.

Effective collaboration is key to strong social dynamics, and it depends on a shared or similar subjective consciousness among entrepreneurial participants. Participants who collaborate well exhibit

traits such as trust【9】, consensus【10】, and cohesion【11】, which facilitate collaboration through knowledge exchange, information sharing, and resource circulation【4】. In this process, identity plays a crucial role【12】.

As a cognitive reference framework for normative behavior, identity profoundly influences entrepreneurial activities and drives the enthusiasm guiding these activities【13】. Sociological research suggests that interactions and behaviors in social dynamics are driven by social identity【14】. Advocating a shared identity can inspire cohesion among entrepreneurial participants, fostering consistency in their actions【15】. Once a certain identity is accepted, participants are motivated to affirm its existence, maintaining behavior consistent with that identity【16】. Traditionally, identity research focuses on individuals or organizations. However, when the perspective extends beyond individual ventures, the notion of the subject transcends individual and collective boundaries, transforming into an ecosystem of multiple organizations. Identity advocacy at the ecosystem level no longer represents any single organization's position but reflects a set of shared values for the entire system – a shared identity【18】.

The introduction of shared identity addresses why different organizations converge (or diverge) within the EE framework, and its construction differs from that of a traditional entrepreneurial identity【3】. Ensuring the smooth construction of a shared identity is crucial to stimulate positive social dynamics. In an EE, this means effectively transmitting knowledge, information, and resources among participants【19】. Nevertheless, research on constructing shared identity in EEs still faces challenges【20】. The lack of effective approaches may lead to two scenarios: (1) the EE may struggle between maintaining consistency and providing leadership in shaping social dynamics【21】, potentially resulting in unequal treatment of participants in the flow of knowledge, information, and resources【8】; (2) entrepreneurial participants from profit-oriented companies, non-profits, government agencies, and other entities may lack sufficient constraints, exacerbating tension and leading to EE fragmentation【18】. Therefore, uncovering how shared identity is constructed and how it influences participant collaboration in EEs is crucial.

Past research has examined how shared identity fosters collaboration among entrepreneurial participants using both empirical and qualitative lenses. For example, Shepherd & Haynie (2009) proposed the concept of a "super identity" consisting of multiple collectives【22】. Spigel (2017) asserted that shared identity forms the foundation for the survival of entrepreneurial communities【23】. Thompson, Purdy & Ventresca (2018) further explained that shared identity, as a carrier of values, can "clarify how things work" and establish a chain of value dissemination among participants【4】. Bouncken& Kraus (2022) demonstrated the governance potential of this mode of operation on social relationships, trust, and rules within EEs【12】. Donaldson (2021) argued that shared identity can alleviate participants' "cognitive perplexity," shaping a social dynamic based on mutual trust in knowledge, information, and resource exchange【16】. Zankl & Grimes (2020) revealed that shared identity influences interaction patterns, challenges imperatives, and contextualizes orientations within an EE【18】.

While many studies recognize the positive impact of shared identity on social dynamics, to date there has been no systematic review consolidating the commonalities and differences in how shared identity is constructed across the literature. Perspectives on expression, conclusions, and identity construction methods vary and sometimes conflict. For example, some empiricists argue that establishing a shared identity follows objective rules beyond subjective representations (e.g. institutions, procedures, goals)【24】【5】【12】. In contrast, qualitative researchers downplay the necessity of explicit identity-shaping processes and emphasize cultural resonance, common vision, and narrative styles as crucial【3】【4】【

18】. Moreover, researchers have not reached consensus on whether shared identity indeed stimulates effective knowledge/information/resource flows and thus EE success 【12】【8】【4】【5】.

This study aims to fill the above gap by systematically reviewing research on shared identity in entrepreneurship. By examining the themes used in studies of shared identity and analyzing its role in driving knowledge, information, and resource flows, we seek to enhance consensus in two areas:

(1) the themes employed in studies linking shared identity with collaboration among EE actors, and

(2) the voids and underexplored domains in understanding shared identity and collaboration in EEs.

Our review uses descriptive and content analyses on data collected through the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, focusing on the relationship between shared identity and EE participants' collaboration levels. Specifically, we address the following research questions:

A. *What themes have been employed, and what patterns emerge in studies connecting shared identity with the collaboration of EE actors?*

B. *What are the existing voids and domains that require attention in future research endeavors?*

This study contributes to the knowledge base in several ways. First, it systematically reviews how shared identity has been studied in entrepreneurship. Understanding the themes used in linking shared identity with EE collaboration and the findings on how this identity drives collaboration is a crucial step toward theorizing the EE as an "artificial metaphor." To our knowledge, no prior systematic review has tackled these questions. Second, this study emphasizes research trends and patterns in shared identity within entrepreneurship, including theoretical frameworks and contextual applications. The remainder of the paper is organized as follows: Section 2 explains the methodology. Section 3 presents the descriptive results. Section 4 provides the content analysis results. Section 5 offers discussion and future research directions. Finally, Section 6 concludes the paper.

II. Mᴇᴛʜᴏᴅᴏʟᴏɢʏ

This section outlines the systematic review methodology used to examine studies on shared identity in EEs. The review process, including literature retrieval and analysis, is detailed. The study follows PRISMA guidelines, encompassing four stages: identification, screening, eligibility, and inclusion.

The PRISMA protocol enhances research quality, transparency, and replicability, helping researchers systematically conduct and report reviews 【25】. Adopting PRISMA offers several benefits: (1) it synthesizes different review methodologies (systematic reviews, scoping reviews, review protocols), and (2) helps authors clearly describe what was done, the findings, and plans based on the protocol, ensuring transparency and accuracy in the review process 【27】. The PRISMA approach thus facilitates effective literature retrieval on shared identity and EEs.

The initial literature search was conducted in August 2022 using Web of Science (WoS) and Scopus, two of the world's largest and most trusted databases for comprehensive coverage. Additional databases (Academic Search Complete, Business Source Ultimate, and MyJurnal) were included to broaden the search scope. We applied inclusion and exclusion criteria as summarized in Table 1. Criteria included: (1) Literature type – only journal articles with complete studies (excluding review articles, conference papers, books, etc.)【11】; (2) Language – English only; (3) Focus – directly related to entrepreneurial ecosystems and identity.

TABLE I. INCLUSION AND EXCLUSION CRITERIA

Criterion	Eligibility	Exclusion
Literature Type	Journal articles with complete, mature studies	Reviews, conference proceedings, books, book chapters
Language	English	Non-English
Focus of Study	Related to entrepreneurial ecosystem and shared identity	Unrelated topics
Publication Year	Between 2003 and 2023	Before 2003
Reference	References available	References unavailable

This table outlines the criteria for selecting literature, including the type of literature, language, study focus, publication years, and reference availability.

Systematic reviews provide a comprehensive understanding of the state of knowledge on a topic by synthesizing and summarizing existing studies【28】. Such reviews can mitigate bias through rigorous study selection, data extraction, and quality assessment, yielding robust insights【29】. They also help identify research gaps and highlight recent developments, saving researchers time and effort【30】. Hence, a systematic review is a highly suitable approach for an exploratory study of this nature.

The systematic review was conducted in August 2022, initially utilizing two databases, namely Scopus and WoS. However, due to the limited number of retrieved literature (44 and 52 articles, respectively), two additional databases (Academic Search Complete and Business Source Ultimate) were incorporated to achieve a more comprehensive review scope. The systematic review process comprised four stages. Previously identified appropriate keywords related to EE and shared identity were employed. The comprehensive functionalities of the databases facilitated prioritization and customization in the search sections, such as abstracts, keywords, and titles. Table 2 displays the search strings for each of the four databases.

TABLE II. SEARCH STRINGS USED IN DATABASES

Journal Database	Search String	Articles Screened
Web of Science	Entrepreneur* AND ecosystem AND ("shared identity" OR "super identity" OR "collective identity" OR "community identity" OR "group identity")	44
Scopus	Entrepreneur* AND ecosystem AND ("shared identity" OR "super identity" OR "collective identity" OR "community identity" OR "group	52

	identity")	
Academic Search Complete	Entrepreneur* AND ecosystem AND ("shared identity" OR "super identity" OR "collective identity" OR "community identity" OR "group identity")	291
Business Source Ultimate	Entrepreneur* AND ecosystem AND ("shared identity" OR "super identity" OR "collective identity" OR "community identity" OR "group identity")	1591

We identified a total of 1978 articles through the database searches. After removing 383 duplicates, 1595 articles remained for screening. We then applied further screening criteria (excluding theses, books, book chapters, conference proceedings, non-English articles, and articles published before 2003) by examining titles, abstracts, and keywords, reducing the set to 1034. We assessed the full text of these for eligibility, excluding 1024 that did not meet our inclusion criteria. Ultimately, 10 papers were retained for the finalsynthesis.
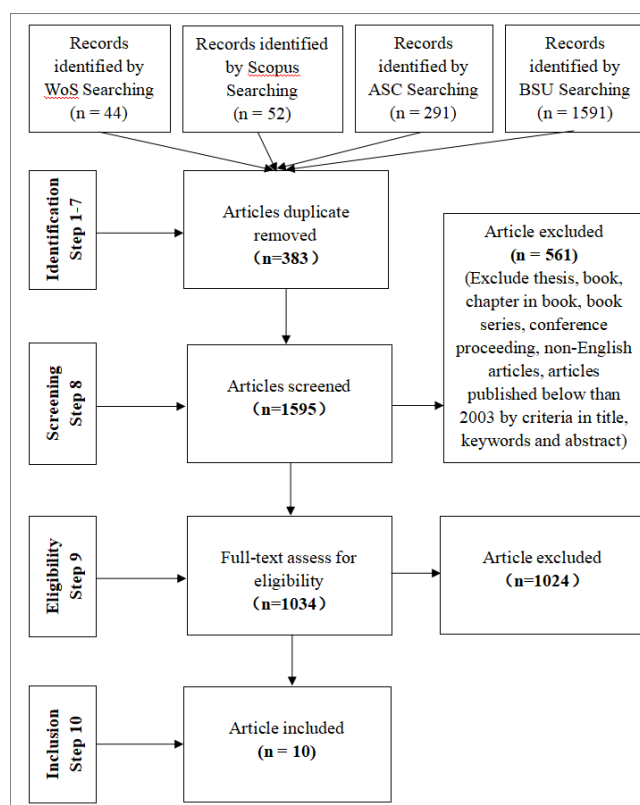

Fig. 1.PRISMA flow diagram illustrating the article selection process for this review.

This figure shows the number of records identified, screened, deemed eligible, and included at each stage of the PRISMA process (identification, screening, eligibility, inclusion), adapted from Liberati et al. (2009).

A total of 10 papers were selected for data extraction and analysis. Descriptive analysis of these papers' abstracts was conducted alongside content analysis to address the research questions. Ten papers were deemed sufficient because: (1) our search extensively covered relevant topics, keywords, and abstracts related to shared identity in EEs (including terms such as shared identity, super identity, collective identity, community identity, group identity, meta-identity, and joint identity); and (2) articles lacking references were excluded. The relatively small number of final papers indicates the nascent and focused nature of research at the intersection of shared identity and EEs.

III. DESCRIPTIVE ANALYSIS

As illustrated in Fig. 2, the 10 relevant papers were published between 2016 and 2023. Notably, there were two papers each in 2018, 2019, and 2022, and one paper each in 2016, 2020, 2021, and 2023. Although the screening phase allowed papers from 2003 onward, no relevant papers on shared identity and EEs were found for 2003–2015. Fig. 2 shows a clear increasing trend in publications after 2016, indicating growing research interest in this topic in recent years.
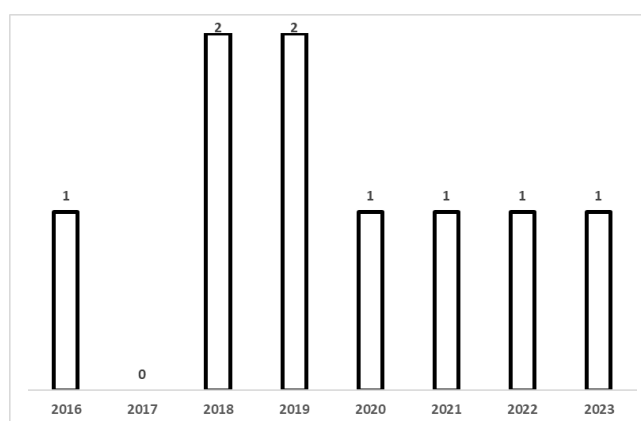

Fig. 2.Publication years of the selected papers (2016–2023).

The number of selected studies on shared identity in EEs has generally increased over time, with a noticeable rise after 2016.

Analysis of the 10 papers' publication venues shows that they are distributed across journals focused on entrepreneurship, social entrepreneurship, economics, and small and medium enterprises (SMEs). This wide distribution suggests broad applicability of the topic. Most journals represented have published only one of the selected papers, indicating that research on shared identity in EEs is still emerging across different outlets rather than concentrated in a single journal.

According to Table III, the top five journals by impact factor each published one paper. The journal with the highest impact factor is "Academy of Management Proceedings," reaching 10.979, followed by another journal with an impact factor of 7.096 ("Information Systems Journal"). These journals focus on SME, social entrepreneurship, small business management, technology and society, and cutting-edge topics in management. This signifies that discussions on shared identity and EE have garnered widespread and high-quality attention in these journals.

TABLE III.TOP FIVE JOURNALS BY IMPACT FACTOR (2022-2023)

Journal	No. of Papers	Impact Factor
Academy of Management Proceedings	1	10.979
Information Systems Journal	1	7.767
Small Business Economics	1	7.096
International Entrepreneurship and Management Journal	1	6.15
Strategic Entrepreneurship Journal	1	5.761

As depicted in Fig. 3, the most popular data collection method in the examined papers is secondary data, with 9 papers utilizing this approach. Following closely is the use of interviews, employed in 5 papers. On the other hand, papers employing survey methods amount to 4, mixed methods are used in 1 paper, and observation is employed in 1 paper, indicating a lesser prevalence of these methods in the reviewed literature.
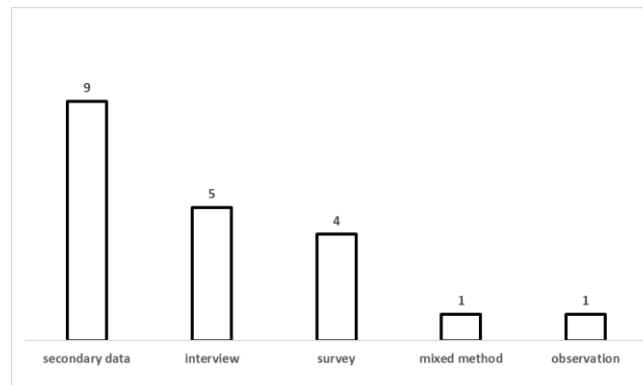

Fig.3.Methodologies used by the selected papers.

Secondary data analysis was the predominant method, employed by most studies, followed by interview-based qualitative methods. Survey research was less common, and only one study each used mixed methods or direct observation.

Table IV highlights the Top 5 most-cited papers in the domain of shared identity and EEs among our sample. These influential works significantly shape our understanding of how shared identity contributes to building entrepreneurial ecosystems:

TABLE IV.TOP 5 MOST CITED PAPERS IN SHARED IDENTITY AND EE RESEARCH.

Author(s) and Year	Title	Journal	Citations
Neumeyer et al. (2019)	Entrepreneurship ecosystems and women	Small Business Economics	279

	entrepreneurs		
Thompson et al. (2018)	How entrepreneurial ecosystems take form	Strategic Entrepreneurship Journal	247
Roundy (2016)	Start-up community narratives	Journal of Entrepreneurship	137
Du et al. (2018)	From marketplace to digital entrepreneurial ecosystem	Information Systems Journal	114
Bouncken& Kraus (2022)	Entrepreneurial ecosystems in an interconnected world	Review of Managerial Science	87

This table lists five highly-cited studies from our review sample, including their key focus and contributions.

From Table IV, we observe that Neumeyer et al. (2019)【5】, published in Small Business Economics, has the highest citation count (279). This study explored whether an EE can influence women entrepreneurs to construct a shared, consistent, and transcendent identity beyond their organizations and collectives. Thompson, Purdy & Ventresca (2018)【4】, in Strategic Entrepreneurship Journal (247 citations), examined how shared identity relates to the formation and evolution of different stages of an EE. Roundy (2016)【3】, in Journal of Entrepreneurship (137 citations), discussed the necessity of a shared identity in shaping the characteristics, boundaries, and functioning of the EE. Du et al. (2018)【17】, in Information Systems Journal (114 citations), investigated whether diverse organizations in an EE can develop a consistent shared identity despite identity conflicts. Bouncken& Kraus (2022)【12】, in Review of Managerial Science (87 citations), argued the relationship between shared identity and legitimation within the EE.

Overall, the descriptive analysis reveals increasing scholarly interest in shared identity and EEs post-2016, broad international scope albeit sparse distribution, a dominance of qualitative and secondary-data methodologies, and a few highly influential papers driving current understanding.

IV. CONTENT ANALYSIS

In line with our inclusion criteria, the evaluation of the 10 selected papers focuses on: (i) the collaboration levels of entrepreneurial participants, (ii) the effectiveness of EE operations, and (iii) how shared identity is distributed or manifested across communities in the ecosystem.

A. Collaboration Patterns of Entrepreneurial Participants

An examination of the selected papers indicates that shared identity can stimulate collaboration along various dimensions, including infrastructure, communication, values, legitimacy, capital, education, and purpose. These dimensions, synthesized from the studies and summarized in Table V, represent factors of collaboration influenced by shared identity. We posit that a shared identity among EE participants expedites information exchange, particularly in communicating common values and objectives. Likewise, EEs characterized by a strong shared identity demonstrate higher effectiveness in knowledge transfer (e.g., through training and teaching) compared to ecosystems lacking such identity. Advantages in

information sharing and knowledge exchange, in turn, propel participants to accelerate the circulation and utilization of resources (including financial, human, and infrastructural resources). In summary, the influence of shared identity on collaboration can be captured in three key characteristics: information sharing, knowledge exchange, and the cyclical flow of resources.

TABLE V. COLLABORATION FACTORS DRIVEN BY SHARED IDENTITY (AS IDENTIFIED ACROSS ALL 10 SELECTED PAPERS).

Author(s) & Year	Infrastructure	Communication	Value	Legitimization	Capital	Education/Course	Purpose
Roundy, 2016			●				●
Thompson et al., 2018	●	●	●	●	●		●
Du et al., 2018	●			●		●	
Neumeyer et al., 2019		●	●	●	●		●
Porras-Paez & Schmutzler, 2019	●	●	●	●	●		●
Zankl & Grimes, 2020	●	●	●	●	●		●
Donaldson, 2021	●	●	●	●	●	●	●
Beyhan et al., 2022	●	●		●	●	●	●
Bouncken & Kraus, 2022			●	●		●	●
Wang & Nicholls, 2023		●	●	●			

a. Note: "●" indicates factors explicitly identified by authors as driven by shared identity.

This table lists the presence (●) or absence of specific collaboration-driving factors – infrastructure, communication, value, legitimization, capital, educational course, and purpose – for each study in our review.

Table V shows that different studies emphasize different collaboration factors underpinned by shared identity. For example, Roundy (2016) highlighted the importance of shared values and common purpose in entrepreneurial communities, whereas Thompson et al. (2018) identified multiple factors

(communication, value, capital, purpose) as enhanced by a common identity. Du et al. (2018), focusing on a digital entrepreneurial ecosystem, stressed infrastructure and shared learning (course) as key collaboration drivers. Neumeyer et al. (2019) found that communication networks, capital access, and collective purpose were facilitated by shared identity in supporting women entrepreneurs. By contrast, Porras-Paez & Schmutzler (2019) emphasized legitimization, capital, and purpose through a lead actor orchestrating an EE. Some studies, such as Zankl & Grimes (2020) and Donaldson (2021), identified a wide array of factors (up to five each) being positively influenced by shared identity – underscoring its broad role – whereas others like Bouncken& Kraus (2022) and Wang & Nicholls (2023) highlighted a more limited set of factors (e.g., legitimacy and purpose).

Overall, these findings suggest that shared identity in an EE can inspire collaboration on multiple fronts, but the emphasis may vary by context. Nonetheless, information sharing, knowledge exchange, and resource cycling emerge as recurrent themes by which shared identity contributes to collaboration.

Shared identity appears to expedite information sharing among participants, particularly regarding values and goals. EEs with a strong shared identity also see more effective knowledge exchange (e.g., via informal learning, mentoring, or training initiatives) than those without. Moreover, a shared identity encourages participants to pool and circulate resources (such as capital, talent, facilities) more freely, as members feel part of a cohesive community. These three elements – information, knowledge, and resources – form a reinforcing cycle of collaboration that can significantly enhance an EE's performance.

B. Shared Identity, Social Dynamics, and EE Success

Identity, as a subjective factor, is theorized to align actions across diverse entities【22】. Within an EE, shared identities (i.e., identities that span organizations and individuals) create consensus among actors with distinct backgrounds, thereby promoting effective collaboration and driving a vigorous social dynamic【4】【23】【12】. Numerous studies underscore the pivotal role of an active community (high social dynamic) in shaping an effective EE【6】. Shared identity helps inspire this social dynamic by uniting participants around common entrepreneurial goals and norms【4】. High levels of social dynamic motivate participants to coordinate their behaviors and expectations, transcending organizational boundaries. Thus, social dynamic offers a holistic perspective for examining EE effectiveness【6】.

A review of the selected papers shows that shared identity influences social dynamics through both top-down and bottom-up paths【5】【17】【18】【49】. The bottom-up path operates via social networks – frequent interpersonal interactions and grassroots community building among entrepreneurs (e.g., peer networks, meetups, communal narratives) – which shared identity can invigorate. The top-down path operates via institutions – formal structures and rules (e.g., policies, support programs, governance frameworks) – which can embed and enforce shared values from above. In many EEs, these two paths work in synergy: vibrant social networks and supportive institutions together spark positive social dynamics.

Social Network (Bottom-up): Social networks in EEs serve as "communication networks" that facilitate entrepreneurial activities【4】. An active social network increases the frequency of participant communication through business events, forums, cultural exchanges, and training sessions【4】【18】【16】【12】. In these frequent exchanges, participants' motivations, goals, and values influence each other and gradually align, reducing competition and conflict and fostering a symbiotic community within the EE【37】. Collaboration via shared identity in social networks often evolves through stages. In early stages, cooperation is limited until certain individuals proactively engage others for entrepreneurial purposes【3】. In later development stages, entrepreneurs formulate a shared mission and vision, sparking joint

opportunity exploration【4】. As opportunities are pursued, collaboration between entrepreneurs and like-minded partners intensifies【16】. In mature (prosperity) stages, diverse social groups form, engaging in mutual learning, support, and collective action that drive regional entrepreneurial activity【12】. Thus, shared identity catalyzes increasingly advanced collaboration as an EE's social network matures.

Institution (Top-down): Various formal institutions exist in an EE – "rules of the game" such as policies, regulations, and cultural norms【38】. Institutions represent top-down interventions that can stimulate EE effectiveness and entrepreneurial activity【39】. As shown in Table VI, institutions guide the flow of resources, knowledge, and information indirectly by shaping participants' attitudes and behaviors 【40】. Well-designed institutions leverage social dynamics to promote cooperation and drive EE operations【41】. For example, Sa et al. (2022) liken the role of institutions in aligning actors to a "matching process of consciousness," where policies and programs help match individual mindsets with collective goals【42】. Institutions can create more business opportunities by establishing legitimacy and reciprocity (e.g., startup grants, networking platforms)【43】. Although EEs rely fundamentally on actors' subjective drive, objective institutional elements reflect and reinforce the shared consciousness of participants【44】. Importantly, institutions require actors' recognition and buy-in; a shared belief in institutional arrangements leads participants to modify their behavior in line with those arrangements, thus stimulating a positive social dynamic (e.g., resource sharing, knowledge flows, technology exchange) that enhances EE effectiveness【12】. Entrepreneurship itself is a social behavior grounded in subjective perceptions【20】, so some argue that institutions in an EE act as subjective intermediaries – formal mechanisms that carry collective intentions【45】.

Institutions improve the objective environment for entrepreneurship, indirectly influencing entrepreneurs' behaviors【46】. For instance, institutions can offer financial support, tax incentives, and training opportunities to create favorable conditions for entrepreneurs【47】. They can also provide risk mitigation (e.g., bankruptcy protection, safety nets) to reduce losses when ventures fail【48】. Additionally, feedback from entrepreneurs can inform policymakers, who adjust institutions to better meet the community's needs. Effective institutions transmit designers' intentions top-down, and actors align their mindset to these institutions through practice, driving resources, knowledge, and technology dynamics. This iterative alignment contributes to EE effectiveness【50】.

The role of institutions also varies by development stage of an EE【39】. In early stages, transparent and simple regulations can attract more entrepreneurs by lowering entry barriers. In growth stages, supportive institutions (subsidies, incubators, etc.) help entrepreneurs access opportunities and resources. In mature stages, robust institutions (steady resource influx, strong IP protection, stable contracts) maintain actor activity and system stability. Even in decline, institutions can act as a "stimulant" via timely policy intervention to rejuvenate the system【1】. Thus, shared identity working through institutions can sustain an EE across its life cycle by continually aligning actor behavior with evolving collective needs.

TABLE VI. TYPES OF SOCIAL DYNAMICS CONTRIBUTING TO AN EFFECTIVE AND SUCCESSFUL EE.

Author(s) & Year	Create Community	Seek Legalization	Share Risk	Establish Reciprocity	Provide Opportunity	Improve Environment	Feedback & Optimization	Primary Theory
Roundy, 2016	●						●	CT
Thompso	●	●	●	●	●	●	●	IT

n et al., 2018								
Du et al., 2018	●	●		●		●		MOT
Neumeyer et al., 2019	●	●	●	●	●	●		SCT
Porras-Paez & Schmutzler, 2019	●	●	●	●	●	●	●	SCT
Zankl & Grimes, 2020	●	●		●	●			
Donaldson, 2021	●			●	●		●	
Bouncken& Kraus, 2022	●	●		●		●		
Beyhan et al., 2022	●	●	●	●	●	●		
Wang & Nicholls, 2023		●				●		

b. Note: CT = Complexity Theory; IT = Institutional Theory; MOT = Meta-Organization Theory; SCT = Social Capital Theory

This table contrasts social dynamic factors driven by social networks vs. institutions. Seven features are listed (creating community, seeking legalization, sharing risk, establishing reciprocity, providing opportunity, improving environment, feedback & optimization), and each selected study is marked (●) under either the Social Network or Institution column if it addresses that feature. The far-right column notes the primary theory or framework the study builds upon.

Table VI synthesizes how each study in our review addresses key social dynamic features via social networks and/or institutions. For example, Roundy (2016) emphasized community creation and feedback loops as bottom-up (network-driven) dynamics in a startup community【3】. Thompson et al. (2018) covered a broad range – from community creation and communication (network) to providing opportunity and feedback – partly via institutional supports in Seattle's social impact initiatives【4】. Du et al. (2018), focusing on a meta-organization, highlighted infrastructure and community creation (network side) and establishing reciprocity (institutional governance) in a Chinese EE【17】. Neumeyer et al. (2019) stressed sharing risk and providing opportunity through networks and also improving the environment (institutional context) to support women entrepreneurs【5】. Porras-Paez & Schmutzler (2019), studying a

lead actor in an emerging economy, touched on nearly all features – bridging both networks and institutions – to orchestrate the EE【52】. Zankl & Grimes (2020) focused on communication networks (community) and legitimacy (seeking legalization) via egalitarian relationships【18】. Donaldson (2021) underscored infrastructure (culture as informal infrastructure) and value communication, as well as capital circulation and feedback mechanisms within the EE's culture【16】. Beyhan et al. (2022), examining accelerators, dealt with legitimization, reciprocity, opportunity provision, and resource optimization, blending network and institutional actions【54】. Bouncken& Kraus (2022) highlighted seeking legitimacy and establishing rules (institutional) alongside some network feedback dynamics【12】. Wang & Nicholls (2023), comparing social enterprise ecosystems, emphasized institutional support (legal frameworks) and environmental improvements across countries【53】.

In summary, shared identity drives positive social dynamics in EEs through collaborative networks and enabling institutions. An EE's success is often defined by its ability to continuously stimulate entrepreneurship – essentially, by its effectiveness, manifested in consistent participant awareness and coordinated action【3】【4】【12】. This process of building consensus and coordinated behavior among actors is what we term social dynamics, which emerges from the interplay of grassroots networks and formal institutions【49】【6】. A vibrant social dynamic, fueled by shared identity, underpins a successful EE.

C. Future Research Directions

(Section 5 of the original manuscript combined discussion and future research; here we focus on future research suggestions in light of content analysis findings.)

Our review centers on how nascent shared identity stimulates participant collaboration, and we offer several directions for future inquiry. The key lies in operationalizing shared identity and explicating how it fosters effective collaboration within EEs:

- Challenges in Constructing Shared Identity: Building a shared identity in an EE is not trivial. Du et al. (2018) conceptualized an EE as a "meta-organization" with its own identity, which can conflict with individual member identities【17】. Participants must often balance such conflicts. For instance, Bouncken& Kraus (2022) noted that participants' actual behaviors may deviate from professed shared identities, requiring mechanisms to manage this discrepancy (what Zankl & Grimes (2020) called "identity buffering")【18】. Future research should explore obstacles and strategies in constructing a truly shared identity, such as identity leadership, narrative crafting, or inclusive governance.

- Identity Perspective in EE Studies: Shared identity construction and its effects have rarely been examined from an identity theory perspective. Most studies leverage institutional or resource-based theories when discussing shared identity. For example, Neumeyer et al. (2019) hypothesized that shared identity might form around social change, opportunity recognition, and resource growth【5】. Porras-Paez & Schmutzler (2019) demonstrated how coordinating institutions (a structural view) bring trust and identity recognition【52】. Thompson et al. (2018) proposed that spontaneously formed linguistic norms among participants can legitimize an EE and promote connectedness【4】. Institutions can thus transform an EE into a meta-organization accommodating different communities, fostering a unified shared identity despite varied member perspectives【17】. Such institutional identity construction enhances perceived legitimacy and embeddedness of the shared identity, feeding back into EE operations by promoting collaboration and improving governance【12】. However, the identity itself – the cognitive and emotional aspects of identifying with the

ecosystem – is often treated as a black box. Future work should delve into identity-focused mechanisms: how do entrepreneurs internalize an EE-level identity? What signals indicate that a shared identity has formed? How do identity narratives spread and gain acceptance among diverse actors?

- Debates on Identity Construction Pathways: There is long-standing debate in sociology on whether collective identity is built top-down or bottom-up【50】. This maps onto whether identity is imposed by collective ideals or emerges from individual self-anchoring to the group. Scholars distinguish between self-stereotyping (mapping collective identity onto oneself) and self-anchoring (projecting one's identity onto the collective)【50】. In the context of EEs, this raises the question: does shared identity originate from an idealized vision of the ecosystem (the ideal) or from the real interactions and needs of participants (the real)【56】? Without clarifying this directionality, research on shared identity's formation and its influence on resources and institutions may remain under debate. Future research could employ longitudinal or interpretive methods to observe identity formation processes in EEs and determine whether top-down or bottom-up (or a combination) drives shared identity development.

- Shared Identity and EE Success Factors: Few studies have directly examined how shared identity impacts the overall success and effectiveness of EEs. Our findings suggest that current research lacks a comprehensive understanding of how shared identity influences key success factors like knowledge exchange, resource sharing, and support mechanisms among participants. These processes are crucial for EE evolution, yet we know little about how a strong shared identity might improve, for instance, knowledge spillovers or collaborative innovation in an ecosystem. Future research should investigate these micro-foundations: how does a shared identity among entrepreneurs lead to tangible outcomes such as higher innovation rates, better resource mobilization, or resilience of the ecosystem? Theoretical and empirical exploration of these links will clarify the true impact and value contribution of shared identity in EEs.

- Inclusivity vs. Exclusivity of Shared Identity: While shared identity is often seen as inclusive and unifying, it may also have an "exclusivity" aspect. Adopting a shared identity does not automatically eliminate self-interest. Our review found hints that shared identity can sometimes conflict with individual or subgroup perspectives【18】. In such cases, strongly bonded groups might exclude others (e.g., through cliques, favoritism, nepotism) under the guise of a shared identity【16】. This dark side suggests a potential determinant of EE success: if shared identity becomes too exclusive or is co-opted by an elite subgroup, it could harm the ecosystem. Future research should examine conditions under which shared identity fosters broad-based collaboration versus when it leads to exclusionary practices that undermine ecosystem health.

By addressing these avenues, future studies can deepen our understanding of how shared identity forms, operates, and influences outcomes in entrepreneurial ecosystems, ultimately guiding both theory development and practical ecosystem management.

V. DISCUSSION AND IMPLICATIONS

Our systematic review synthesizes how shared identity has been studied in relation to EE dynamics, and from this synthesis we draw several implications. Through shared identity advocacy, members of entrepreneurial ecosystems appear to enhance collaboration in information exchange, knowledge sharing, and resource utilization, potentially creating a more effective EE. Thus, constructing a shared identity is pivotal for EE success.

Guided by our two core questions, our review emphasizes the concept of social dynamic. Social dynamic, driven by top-down (institutional) and bottom-up (network) forces, is the mechanism through which shared identity impacts participant collaboration. We categorize shared identity's influence into three aspects (information, knowledge, resources), as noted earlier. From our analysis of the 10 papers, we conclude that (1) the methods of constructing shared identity remain uncertain and varied, and (2) conclusions on shared identity's impact on collaboration are often fragmented or context-specific.

Our findings also relate shared identity to EE success. A key factor in EE success is enhancing the framework's operational effectiveness, which is closely tied to social dynamic – i.e., participant collaboration levels. Building a successful EE appears to be a complex, multi-stage process requiring: first, establishing a shared identity that transcends individual organizations and communities, to regulate participants' entrepreneurial behavior; second, leveraging that shared identity to improve collaboration in information exchange, knowledge sharing, and resource circulation. Strong collaboration then fuels positive social dynamics, driving the EE's evolution and, ultimately, its successful operation. Most literature we reviewed stops short of detailing this full process. While many articles underscore that participant collaboration drives EE effectiveness, some indicate a close relationship between shared identity and collaboration levels – yet they rarely explicate how to construct shared identity or how exactly it promotes collaboration across the key dimensions (information, knowledge, resources).

By consolidating current knowledge, our review offers clarity on how shared identity relates to entrepreneurial ecosystem collaboration. It suggests that specialized theoretical lenses on identity (e.g., social identity theory, organizational identity theory) might be needed to fully explain identity construction and collaboration in different EE contexts. This implies fertile ground for further exploration integrating identity theory more deeply into EE research.

Our findings also have practical implications for stakeholders aiming to foster successful EEs. They suggest that building a collective identity among ecosystem members – through shared narratives, values, and goals – can significantly enhance collaboration and resource sharing, thereby strengthening the entire ecosystem. Policymakers and EE developers might focus on facilitating community-building events, shared symbols or branding, and inclusive governance structures that reinforce a shared sense of "who we are" as an ecosystem. However, they should also be mindful of the potential for exclusivity: ensuring that the shared identity remains open and empowering to new and existing members alike is key to sustaining a healthy entrepreneurial ecosystem.

VI. CONCLUSION

This study conducted a systematic literature review of Entrepreneurial Ecosystems (EE) and shared identity. Using WoS, Scopus, Academic Search Complete, and Business Source Ultimate, we identified and analyzed 10 relevant papers. Our findings provide evidence that by advocating a shared identity, members of EEs can improve collaboration in exchanging information, sharing knowledge, and circulating resources – thereby potentially building a more effective ecosystem. In short, constructing a shared identity emerges as crucial for EE success.

Addressing two core questions – (1) What themes and patterns emerge in studies connecting shared identity with EE actors' collaboration? and (2) What voids and domains need attention in future research? – our review highlights social dynamic as a focal concept. Achieving a strong social dynamic via top-down (institutional) and bottom-up (network) forces is how shared identity influences participant collaboration. We grouped the impacts of shared identity on collaboration into three main aspects: information exchange, knowledge sharing, and resource circulation. From the 10 papers, we observed that

methods of constructing shared identity are still unclear and varied, and findings on its impact are fragmented across studies.

We also discussed the relationship between shared identity and EE success. We found that driving EE success hinges on enhancing the ecosystem's operational effectiveness, which in turn is linked to social dynamic (participants' collaboration levels). Building a successful EE likely requires: first, establishing a shared identity that transcends individual organizations (to guide participants' behavior), and second, using that shared identity to elevate collaboration in information, knowledge, and resource flows. High collaboration levels fuel positive social dynamics, facilitating the EE's evolution and success. Our review revealed that current research only partially addresses this process. Many studies emphasize the role of participant collaboration in EE effectiveness, and some link shared identity to collaboration levels, but few explain how to cultivate shared identity or detail its comprehensive effects on collaboration.

This review contributes a consolidated understanding of how shared identity relates to collaboration in entrepreneurial ecosystems. It underscores the need for more research on how shared identities form and how they directly affect key processes like knowledge exchange and resource sharing. We suggest that future work integrate identity-focused theoretical perspectives to explore these questions in depth. By doing so, scholars can better explain identity construction and collaborative dynamics in various organizational and community contexts, and practitioners can glean insights into nurturing effective, cohesive entrepreneurial ecosystems.

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