2 Entrepreneurial Ecosystems

An Overview

2.1 Introduction

This chapter introduces the concept of entrepreneurial ecosystems (Auerswald, 2015; Bosma & Holvoet, 2015; Spigel, 2015), provides various ways to consider and define the concept, and then moves on to discuss its importance for supporting economic development. Given the growing body of work on entrepreneurial ecosystems, we first outline how the field of entrepreneurial ecosystems recently evolved from existing work on clusters (Motoyama, 2008) and carries much of its assumptions around homogeneity of actors. We build on this argument by suggesting that clusters are a specific form of institutional arrangement which impact governance and resource allocation. Our contention is that while clusters offer economies of scale and reduction in transaction costs to firms and can be supportive of collaborations between firms, they do not challenge the formal “rules of the game” (North, 1991) or the assumptions of property rights that guide how firms “play the game” (i.e. contracts and governance). Within this domain, not all actors have the same property rights, and hence not all actors are the same in their ability to participate in contracting. In the case of entrepreneurship, not all actors have the same access to or ownership of capital, the same rights to ideas (i.e. patents), or the same opportunities to benefit from resources. Further, informal institutions, such as customs, values, and norms, that impact the institutional environment or the formal rules of the game are not singular but are, in fact, different for different groups of people.

In the domain of entrepreneurship, we use the term “institutional environment” to examine the ways in which ecosystems are formalized, organized, and operationalized through actors and
relationships. Our contention is that entrepreneurial ecosystems are a networked type of governance mechanism, relying on trust, relationships, and loose coordination, but that their form and function are gendered. We demonstrate that informal institutions (values, norms), the institutional environment (formal rules of the game), governance (how the game is played), and resource allocation (see Williamson, 1993, 1998, 2008) are heterogeneous to the extent that they can be manifest differently in different contexts. And, specifically, existing concepts of entrepreneurial ecosystems, derived from cluster theory, do not provide conceptual differentiation beyond categories or types [i.e. entrepreneurs, intermediary support organizations, investors, etc.] among the different actors that “play the game” within ecosystems. To demonstrate that, in fact, there is differentiation rather than homogeneity, we rely on gender as a conceptual framework to guide our reimagining of entrepreneurial ecosystems. Gender offers a lens through which to launch arguments about the ways in which informal institutions are gendered, that there are gendered rules of the game, and that there are gender differences in how actors [can] play the game and participate in resource allocation. In all, this chapter explains the foundation of the entrepreneurial ecosystem concept as derived from institutional economics and sociology as well as cluster theory, but expands on this through a gender framework.

The emergence of entrepreneurial ecosystems as an analytic lens through which to understand entrepreneurs and entrepreneurship activity has grown rapidly in the last decade. This new approach has garnered much attention in the entrepreneurship field as well as in urban planning, economic geography, and other disciplines. While there is not an agreed-on definition, for the purposes of this book, entrepreneurial ecosystems can be broadly defined as communities of entrepreneurs who are in exchange relationships with each other and various entrepreneur support organizations in the context of institutions and institutionalized sociocultural norms. This definition acknowledges three important tenets of ecosystems: relational dynamics, such as exchanges and relationships between and among
actors; the role of entrepreneur communities; and the role of institutions and norms as factors impacting how and why particular relationships among/between actors may take place.

First, while the term *relational dynamics* may be broad, it allows consideration of exchanges and relationships within entrepreneurial ecosystems. That is, the social components of how individuals and groups relate to each other and interact among themselves provide an added dimension to purely economic perspectives that do not acknowledge or focus on the social dynamics of entrepreneurship activities. Moreover, the relational focus ensures an understanding not only of how ecosystems take shape but also of how they continue to be maintained through exchanges and relationships. Without this focus, which is distinguished from that of cluster theory, understanding of entrepreneurial activities is based on multiple transactions between parties with an emphasis on the economic dimensions of such exchanges. In other words, an ecosystem approach expands the understanding of entrepreneurship as simply a number of mostly economic transactions [a transactional approach] between different actors to a relational understanding of the dynamics between and among actors. This exchange and relationship building takes place between and among entrepreneurs but also includes other actors, such as university programs, incubators, accelerators, coworking spaces, among others, under the umbrella of ESOs.

Second, the idea of communities is an important aspect of entrepreneurship in that exchanges, such as those related to information, resources, and knowledge as well as relationships, take shape in a particular context (rather than in a vacuum). Understanding the role and value of communities in ecosystems can provide important insights as to who is part of a community and who is potentially left out, either intentionally or as an unintended consequence. Communities can foster a sense of belonging, facilitate information exchange, and provide support and resources to entrepreneurs. Communities are also a form of governance through which the relationships and norms of the ecosystem are reinforced and replicated.
Thus, understanding how they contribute to the formation and maintenance of ecosystems is important, but so is clarity around how gender and other relations of difference may impact the ways in which entrepreneurial communities form and connect. In this sense, gendered governance mechanisms that manifest through community-building efforts need to be uncovered and examined for their role in creating a gender gap in entrepreneurship activities and opportunities. As we will point out, gender plays an important role in how entrepreneur communities may come to understand themselves and whether to grant access to those considered outside of the community.

Finally, institutionalization and institutions play a pivotal role in providing the context and norms for ecosystems, where a plethora of entrepreneurship activities take place. Here, both formal and informal institutions, such as economic development policies and unspoken but acted-on sociocultural norms, can be a significant influence on the acceptable practices and values of an ecosystem. In Chapter 1, we pointed out that gender is an important organizing principle of society and, hence, plays an important role in how we come to understand and define those who participate in entrepreneurship through the concept of ecosystems. In this chapter, we point out that ecosystem resources are not necessarily accessible to or known by all entrepreneurs in a context of institutional environments and arrangements. Our analytic focus on gender provides the missing but necessary framework to outline why certain actors do not or cannot connect to each other or to ecosystem resources, despite the existence of such resources. We suggest that factors at individual, organizational, and institutional levels are at play, and we show, at the individual level, how issues of identity and relationality impact access; at the level of organizations, how particular organizational practices create community for some but not others; and finally, at the institutional level, how policies and sociocultural norms can potentially hinder unfettered access to resources and opportunities for entrepreneurship.

In addition to insufficient consideration of the various embodied and relational identity dimensions of actors in
entrepreneurial ecosystems, theories and frameworks tend to assume that economic actors are homogenous. Thus, the ways in which gender, race, and other intersectional dimensions of difference impact one’s experiences and opportunities are not considered part of theorizing on entrepreneurial ecosystems. Moreover, there is little consideration of how the very ideas driving entrepreneurial ecosystems replicate problematic assumptions of earlier cluster theory research. Such work readily recognized the importance of firms and locational advantage in relation to competition but did little to further understanding of the role of heterogeneous actors in economic development.

In response to these observations, we show that recognizing heterogeneity rather than homogeneity of actors makes a difference for how we theorize, study, and understand entrepreneurial ecosystems, and how economic development efforts should take shape in an inclusive fashion. However, rather than focusing on all the different ways “difference makes a difference,” the focus in this book is explicitly on gender, gender relations, and gendering processes as important considerations in relation to how entrepreneurial ecosystems are theorized and studied. Research demonstrates that it matters what kind of entrepreneur you are and whether or not you have access to the networks, resources, and information that are seemingly “readily” available in any given entrepreneurial ecosystem (Ozkazanc-Pan & Clark Muntean, 2018).

In the entrepreneurship field, the relationship between gender and entrepreneurial ecosystems has become an important consideration only in the last five to ten years. Prior to that, either the majority of research was on women entrepreneurs, and this stream still continues today (Jennings & Brush, 2013; Ozkazanc-Pan, 2018), or entrepreneurial ecosystems were not theorized by attending to the ways in which gender makes a difference in the informal institutions, the institutional environment, governance, and resource allocation. Currently, when ecosystems research attends to difference, it does so by keeping intact the theoretical framework of entrepreneurial ecosystems but adding in a dimension of difference, such as gender or
race. More explicitly, research tends to focus on women entrepreneurs in entrepreneurial ecosystems rather than offering critique or new directions on the very ways in which entrepreneurial ecosystems have been conceptualized and studied. Rather than relying on identity categories to expand on these claims, our goal is to demonstrate that entrepreneurial ecosystems are in fact gendered, embodied, and relational governance systems for conducting entrepreneurship and are, in fact, the product of gendered institutional environments and arrangements.

As such, this chapter focuses on laying the foundation for our argument that gender is a missing theoretical component of research on entrepreneurial ecosystems, and our analysis contributes to a nuanced understanding of actors. Given the growing importance and relevance of entrepreneurial ecosystems for entrepreneurship research and economic development policies, understanding how policies may impact gendered institutional environments and governance mechanisms in relation to entrepreneurship activities is quite important. In addition, understanding how policies may impact women entrepreneurs when they are implemented without consideration of differences in how entrepreneurial actors participate in ecosystems may pose significant challenges for women-owned businesses. Policymakers who want to support entrepreneurship activities as a means for economic development must acknowledge that policies can have unintended consequences when differences between and among actors are not considered. By focusing on gender as a relevant theoretical framework for rethinking entrepreneurial ecosystems as inclusive of its actors, organizations, and institutions, this book sets the stage for new directions in scholarship research and policymaking at the intersections of entrepreneurship, ecosystems, and economic development.

Guided by these insights and to provide new directions in research on entrepreneurial ecosystems, this chapter provides an overview of entrepreneurial ecosystems research, including definitions, key concepts, and debates that have emerged, focusing explicitly on
their ontological and epistemological assumptions. This overview is done for the purpose of reconsidering the main tenets and assumptions of the field specifically through the lens of gender. The focus in this book is on gender and how gender as an organizing principle of society, a set of relations, and a set of cultural and social norms impacts entrepreneurial experiences and the very formation of entrepreneurial ecosystems. To move toward a gender-integrative framework (Clark Muntean & Ozkazanc-Pan, 2015) for theorizing entrepreneurial ecosystems, this chapter offers three sections.

The first section focuses on how the ecosystems concept has been theorized, inclusive of its various definitions, elements, and nature, expanding on the values and ideas it has borrowed and continues to borrow from institutional economics and sociology. The second discusses the relevance of gender for (re)theorizing the assumed neutral nature of entrepreneurial ecosystems, including recent work that has aimed to introduce a “gender” perspective. The final section provides an overview of the holistic framework that will be utilized in the book – individual, organizational, and societal – as reflecting new conversations on how to rethink entrepreneurial ecosystems in the context of gendered informal institutions, gendered institutional environment, gendered governance, and gendered resource allocation. This framework is derived from conceptualization of gender from disciplines outside of entrepreneurship, including gender studies, feminist work, sociology, and management. In all, the goal of this chapter is to lay the foundation for new directions on how entrepreneurial ecosystems are theorized and studied in the broader entrepreneurship field by making gender a relevant conceptual tool for future work. In all, this chapter demonstrates why ecosystem actors are different from each other and how they may experience, and act in, ecosystems.

2.2 AN OVERVIEW OF ENTREPRENEURIAL ECOSYSTEMS: FROM TRANSACTION COST ECONOMICS TO CLUSTERS

To understand how the current analytic framework of entrepreneurial ecosystems was derived and continues to develop, it’s important to
understand the ways in which previous analytic frameworks around entrepreneurship and economic development have contributed to contemporary conversations. Moreover, to understand how new theories and policies related to entrepreneurial ecosystems can be developed, it is important to understand the guiding assumptions of the existing entrepreneurial ecosystems literature. As this chapter will demonstrate, analysis of entrepreneurial ecosystems still tends to replicate and borrow from institutional economics and sociology as well as economic cluster analysis, particularly in relation to underlying assumptions about actors in the ecosystem. Specifically, entrepreneurial ecosystem analysis adopted economic cluster analysis' disembodied understanding of actors, an approach that has historical precedent in the ways the fields of institutional economics and sociology have theorized informal institutions, the institutional environment, governance, and resource allocation. This understanding is based on engagement with institutional economics and sociology, and specifically conversations around transaction cost economics as the main contributor to cluster theory, a precursor to entrepreneurial ecosystem frameworks. We then expand on cluster theory and the various assumptions embedded in its analytic framework. Finally, we focus on entrepreneurial ecosystems, inclusive of the various elements that are contained within its analytic perspective.

2.2.1 New Institutional Economics and Economic Sociology: Brief Overview

While a historical overview of the development of institutional economics is not within the purview of this book, our focus in this section is on new institutional economics as the starting conversation for contemporary conversations on entrepreneurial ecosystems. Williamson (1993, 1998) succinctly suggests that the main tenets of new institutional economics are that institutions matter and that they can be analyzed with respect to understanding the functioning of the economy and the role of organizations (also see Ménard & Shirley, 2005, for an overview). Within this context, he contends that
the fields of economics and sociology each bring different concepts to the analysis of institutions, albeit at times with very different assumptions around human behavior and organizations. These conversations revolve around the works of Coase (1937/1995, 1998), Alchian & Demsetz (1972), Davis & North (1971), Schumpeter (1943), and others as harbingers of new institutional economics that brings to bear two focal areas: institutional environment and institutional arrangements. Here, environment refers to the “set of fundamental political, social and legal ground rules that establishes the basis for production, exchange and distribution,” while arrangements refer to the “arrangement between economic units that governs the ways in which these units can cooperate and/or compete” (Davis & North, 1971: 5–6). In general, transaction cost economics can be understood as a field of inquiry into the governance mechanisms of contractual relations as actors try to minimize costs associated with doing business (Williamson, 1993), and it is considered one of the main focal points of institutional arrangements.

Yet to understand transaction cost economics and how it contributed to cluster theory development, it is important to understand the broader context of institutional analysis in which it sits. To this end, Williamson (1998) further expands on the economics of institutions, establishing four levels of analysis. The first level refers to embeddedness (Granovetter, 1985) or the informal institutions, customs, norms, and traditions that are generally examined within the domain of social theory. For Williamson (1998), this level is not intentional or planned per se but rather spontaneous in its manifestation, making it more likely to be analyzed through the concepts of social theory than those of economics. The second level refers to the institutional environment or the formal rules of the game, with particular attention to property rights and generally studied under the economics of property rights. Here, Williamson (1998) suggests that it is possible to create particular institutional environments that can lead to economizing of transaction costs. The third level of analysis is that of governance, or how the game is played, with particular
attention to contracts and the alignment of governance structures with transactions. Here, the right governance structure can contribute to economizing of transaction costs undertaken by actors, and is the main focus of transaction cost economics. Finally, the fourth level of analysis refers to resource allocation and employment, examined through pricing and quantities and alignment of incentives. Here, transaction costs can be minimized by getting the right marginal conditions in place, and these considerations are generally examined under the umbrella of agency theory/neoclassical economics (Eisenhardt, 1989).

Within this context, it’s important to note that individual rights, property rights, and considerations over ownership are quite relevant to how institutions are formed as well as to how institutional change happens – in other words, how institutional environments take form and the various arrangements that arise in order to govern economic relationships. And as Williamson (1993) points out, transaction cost economics focuses on the study of contract laws and posits various theories about how actors try to minimize transaction costs through particular governance mechanisms and contracts. Yet in these theories about economic institutions, there is little consideration of the fact that political, social, and legal rights are gendered and that, globally, many women cannot enter into employment (or other) contracts, own property, exercise ownership, or engage in transactions without the approval of male family members or, in some cases, without breaking the law – a reality that continues even today. Thus, fundamentally, the field of institutional economics and economic sociology, as it developed, arrived from the particular set of experiences, vantage points, and perspectives of White male theorists and their views of the economic, sociological, and organizational domains. Historically, the institutional economics did not acknowledge or consider how its fundamental assumptions about human behavior, rights, and institutions were gendered, and it is only in recent years that the field has been expanded to include considerations around gender (Fernandez, 2018).
That is, gender plays a formative role in embeddedness or the emergence of informal institutions, in the formalization of institutional environments, in the governance of economic relationships, and in how resources can be allocated in light of agency problems and differences in risk sharing and risk tolerance. Norms, values, and traditions passed down from generation to generation in society include ideas about the “proper” roles of women in society, assumptions about their competence in matters outside the domestic domain, and ideas about their suitability for certain professions. As demonstrated by the history, across the globe, of women’s rights in political, economic, and social domains, gender plays an important role in how the formal rules of the game (institutional environment) were developed and by whom – it certainly was not predominantly women deciding the polity and structuring the legal system or bureaucracy. And most certainly, governance considerations (i.e. playing the game) have different rules for different players or, in this case, economic actors.

For example, as the US was established through colonization and enslavement, the rights of married White women were not separate from those of their husbands, such that a married woman did not exist legally beyond her marriage. White married women got the right to own property in New York in 1848 through the Married Woman’s Property Act, and other states followed suit such that by 1900 all states had ratified their version of this act. In 1862 the US Homestead Act allowed single, divorced, or widowed White women to own land in their own name. The UK passed the Married Woman’s Property Act in 1870. In 1880 the first stock exchange for women in the US allowed them to use their own money to purchase/speculate on railroad stocks. In 1881 France allowed women to open bank accounts, and in 1886 married women were able to open a bank account without requiring the consent of their husbands. This did not happen in the US until the 1960s and in the UK until the 1970s. Beyond land rights, patent ownership was not available to women in the US until 1845 when New York state allowed married women to
secure patents for their own invention as if they were not married (see Khan, 2005, for an overview of patents and copyrights in the US). It was 1965 before affirmative action covered women, 1968 when “help wanted” ads could no longer specify gender, and 1972 when the Fortune 500 saw its first woman CEO, Katherine Graham.

Today, there is a continued and large gender gap in patenting (Frietsch et al., 2009; Whittington & Smith-Doerr, 2005) and across many industries, such as finance (Bertrand, Goldin, & Katz, 2010). Moreover, in order to affect change, women need to be in decision-making structures and positions. In the US, women did not have the right to vote until 1920, through the Nineteenth Amendment, and Black women still continue to face discrimination while trying to exercise their right to vote. Institutional change related to voting came in part due to existing male political figures and decision-makers finding that alignment with suffragists was beneficial to their own chances of being re-elected. Sociologists point out that shifting gender relations produced a gendered opportunity for women’s suffrage by altering attitudes among political decision-makers about the appropriate roles of women in society. That is, changing gender relations altered expectations about women’s participation in the polity, and these changes in gendered expectations increased the willingness of political decision-makers to support suffrage.

McCammon et al. (2001: 51)

Across the world, there are only eleven women heads of state and twelve serving as heads of government.¹ This large disparity in women’s representation in the polity arising from gendered norms about the role of women in society has a significant impact on the creation of rules and regulations related to the economy and society. Globally, the rights of women in political, economic, social, and

¹ www.unwomen.org/en/what-we-do/leadership-and-political-participation/facts-and-figures#notes
Cultural domains vary dramatically. Despite the passing of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) by the UN General Assembly in 1979, women around the world continue to face discrimination and violence, and lack equal opportunities for education, health, and political representation. These gender gaps arise from lack of robust governance mechanisms, social and cultural norms, gender stereotypes, and the enactment of laws and policies that perpetuate—intentionally or not—unequal opportunities for women. A 2020 report by the UN focusing on gender, business, and law finds that legal differences in eight areas related to working life transitions impact men and women differently. Specifically, these areas are: mobility—laws affecting women’s freedom of movement; workplace—laws affecting the decision to work; pay—laws and regulations affecting women’s pay; marriage—legal constraints associated with marriage; parenthood—laws affecting women’s work after having children; entrepreneurship—constraints on women’s starting and running a business; assets—gender differences in property and inheritance; and pensions—laws affecting the size of a women’s pension. Additionally, 

Of the 189 economies assessed in 2018, 104 economies still have laws preventing women from working in specific jobs, 59 economies have no laws on sexual harassment in the workplace, and in 18 economies, husbands can legally prevent their wives from working.

Within this context, given that any change is likely to alter authority and displace existing male power structures, any changes that bring about gender equality for the sake of doing so may not be met with enthusiasm. This is despite evidence that women’s economic participation is good for economic growth and has positive

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returns for organizational performance.\textsuperscript{5} Thus, to speak about institutional environments and arrangements by referring only to disembodied actors in terms of decision-making, governance, transactions, or other elements of economic, sociological, or organizational theory simply does not represent or reflect the lived experiences of women globally.

To this end, understanding how institutional environments and arrangements, broadly defined but also at the four levels defined by Williamson (1998), are gendered is necessary for a full understanding of the complexities of economic institutions and institutional change. Notably, feminist scholarship in political economy (Luxton & Bezanson, 2006; Rai & Waylen, 2013) and economics (Ferber & Nelson, 2009; Waring & Steinem, 1988) have also addressed some of these concerns in their respective disciplines, while feminist sociologists have examined the social world by reimagining “classic” questions of sociology through feminist lenses (Ingraham, 1994; Smith, 1987; Stacey & Thorne, 1985). These efforts notwithstanding, our focus here is on how the contemporary field of entrepreneurial ecosystems has carried with it the same gender-blind assumptions of institutional economics by way of cluster theory.

2.2.2 Cluster Theory

To understand the relationship between institutional economics and cluster theory, we start by outlining the main assumptions and guiding concepts in cluster theory. In general, cluster theory continues to be a popular mode of analysis in deciphering how and why certain industries and sectors emerge. The idea of a cluster focuses on the geography or place of an organization, expanding on earlier notions of transaction cost economics to include geography as an important consideration on how firms can reduce costs associated with forging relationships and contracts to conduct business (Williamson, 1979, 1998). The notion of a cluster has been pivotal to

\textsuperscript{5} Ibid.
theorizing about competition, innovation, and economic development in a geographic context (Castells, 1989; Rosenfeld, 1997; Scott & Storper, 2003). In his seminal work, Porter defines clusters as “geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition … often extend downstream … and laterally … [and] include governmental and other institutions” (1998: 78). His focus on co-location and interdependencies through the concept of “cluster” is an important contribution to our understanding of competition and economic development. The main takeaways are the relevance and importance of co-located industries for economic growth and even revival. Thus, clusters enable scholars to consider geography as an important factor in the governance of economic relationships, and the arising cooperation/competition dynamics as new considerations in minimizing transaction costs and agency problems.

Following this work, a large stream of research has focused on ways in which clusters can develop to provide competitive advantage to regions and nations, a broad perspective that focuses on geographic location, government regulatory actions and policies, and relationships between various actors and organizations across supply chains (Bradshaw & Blakely, 1999; Feser & Bergman, 2000; Ketels & Memedovic, 2008; Porter, 2000; Puga & Venables, 1996; Romanelli & Khessina, 2005; Waits, 2000). Despite these analyses, much research remains descriptive rather than predictive in outlining why certain industries were able to successfully grow while others did not. Moreover, there was little ability in the theories to provide parameters for what could be done: what could policymakers and others interested in economic development do to encourage the growth of industries in particular locations? These questions remain today and are now forming similarly in the context of entrepreneurship as policymakers strive to bring more investors and startups to their cities.

A number of research studies inspired by cluster theory have focused on finding appropriate business strategies for organizations
(Doeringer & Terkla, 1995) and enabling targeted occupations (Currid & Stolarick, 2009; Markusen, 2004) to remain innovative in the context of increased global competition around labor and resource costs, available tax and other incentives, and talent. One of the most relevant conversations has been around the role of clusters in relation to entrepreneurship. Given that entrepreneurship and clusters are each positively linked to economic growth, understanding the way clusters may impact entrepreneurship has engaged a number of scholars. To this end, they suggest that the stage of cluster coupled with advantages in cultural, relational, and institutional dimensions may contribute positively to entrepreneurship activities (Rocha, 2004; Rocha & Sternberg, 2005). Delgado, Porter, & Stern (2010, 2014) find clusters allow for the realization of location-based complementarities and thereby reduce barriers to new business creation.

Yet most studies theorizing this relationship have derived from population ecology, focusing only on density of firms within an industry rather than organizational characteristics or entrepreneurial activities, two important elements of the entrepreneurial process. Specifically, Motoyama (2008) suggests that network elements of clusters have not been sufficiently examined and much more needs to be done in order to understand exchange relationships between and among individuals and firms, and to gain a fuller picture of how clusters function as a system. At the same time, the major focus in the economic geography literature has been on aggregate factors, such as industry, region, and development, with little attention devoted to the nature and behavior of firms as well as the specific connections between them (Taylor & Asheim, 2001; Maskell, 2001).

In all, co-location (place), competitive advantage, and industry have been the hallmark elements of cluster theory and analysis. Yet these elements do little to provide an understanding of actors involved in economic development via organizations or startups. They derive from a location-place analysis of the firm as an extension of transaction cost economics, aimed at minimizing transaction costs while accruing benefits from economies of scale (particularly for
small- and medium-sized firms). The focus on industry and location obscures any focus on people, agency, and action even more so than disembodied conversations about decision-making, behavior, and agency problems within institutional economics.

Recently, scholars have suggested that perhaps three key disciplines continue their reliance on cluster theory: strategic management, operations management, and economic geography (Manzini & Di Serio, 2017). Meanwhile, the growth of entrepreneurship as a field in its own right (see Javadian et al., 2018, for an overview of foundations in this field) has allowed for new theories and approaches to come into favor. In this regard, the growth of entrepreneurial ecosystems has emerged but not without carrying over some of the guiding assumptions of cluster theory (and, hence, institutional economics and economic sociology). In the next section, we suggest that some of the tenets of the entrepreneurial ecosystem concept are guided by previous ideas that emerged in cluster theory.

2.3  CORE CONCEPTS IN ENTREPRENEURIAL ECOSYSTEMS RESEARCH

While cluster approaches have proliferated, particularly in relation to competition and economic development in the industrial context, in recent years, a focus on “ecosystems” has emerged as a more holistic approach that includes a wider variety of actors in the innovation- and entrepreneurship-related settings including local design (see Collins, 2015). First used by Moore, the notion of ecosystem was used to describe how “companies co-evolve capabilities around a new innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations” (1993: 76). As such, firms were considered to be part of the broader system rather than members of an industry, allowing for consideration of the diverse and different sets of actors that impacted organizations. Since then, scholars have deployed this concept to examine the ways in which innovation takes shape under the umbrella concept of “innovation ecosystems,”
focusing on interactions and networks at the firm level. In general, this research stream has examined the role of central/anchor firms and the various actors on the production and use sides (Autio & Thomas, 2014).

Further research has focused on establishing the boundaries of ecosystems and understanding value-creation innovation activities (Adner & Kapoor, 2010a, b). Others have focused on business strategies relevant for building innovation ecosystems (Adner, 2006) as well as strategic couplings (Brusoni & Prencipe, 2013). Finally, a stream of research has emerged comparing and outlining innovation ecosystems across different nations (Mercan & Goktas, 2011; Rubens et al., 2011). Overall, the notion of an ecosystem has been used in a wide variety of ways to understand innovation, business, and entrepreneurship (see Pilinkiene & Mačiulis, 2014, for an overview) without much differentiation among concepts such as entrepreneurial versus innovation ecosystems, which, while not the focus of this book, represents emergent discussions within the broader field of entrepreneurship studies.

With respect to entrepreneurial ecosystems, early research focused on identifying major constitutive elements, essentially trying to create a concept that allows for the study of a phenomenon. In this regard, in one of the earliest engagements with what would later be termed “ecosystems” research, Van de Ven (1993) identifies engaged actors and a human competence pool under the concept of “social system framework.” Tan et al. (1997) focus on “entrepreneurial infrastructure”, which they define as “facilities and services present within a given geographic area which encourage the birth of new ventures and the growth and development of small and medium-sized businesses” (p. 117). Moving towards a more-entrepreneur oriented framework, Feldman (2001) examines the ways in which a successful entrepreneurial culture emerged in the US Capital out of the interactions of entrepreneurs who had supportive social capital, access to investors and venture capital, intermediary organizations, and research universities. Nijkemp (2003) brings forth the idea of a
networked society as foundational to entrepreneurship research, positing that networking or connecting is key to entrepreneurial success.

In the decade following Van de Ven (1993), research into ecosystems flourishes as more research and researchers engage in this domain of study. Neck et al. (2004) focus on the emergence of high-tech firms in Boulder County, Colorado and posit that success can be attributed to regional entrepreneurial culture, formal and informal networks, incubator organizations, spin-offs, and physical infrastructure. To this end, Cohen (2006) suggests that ecosystems research needs to focus on communities, formal and informal networks, and physical infrastructure and culture in order to create a “sustainable valley” for entrepreneurship. Meanwhile, Isenberg (2013) brings together markets, human capital, supports, culture, finance, and policy to create a conceptual framework for the study of entrepreneurial ecosystems. In many ways, the elements posited under the umbrella of ecosystems research are quite similar to those that were already studied as part of cluster analyses: risk capital (such as venture capitalists), specialized support services, research universities and corporate research labs, core customers, and a labor force (see Porter, 1998), a point made by Motoyama and Knowlton (2016).

In recent years, there has been a proliferation of approaches including more dynamic models focusing on various aspects of entrepreneurial ecosystems. For example, while Auerswald (2015) does not define an entrepreneurial ecosystem, he differentiates neoclassical approaches from ecological ecosystem approaches to the study of firms and economic development. By doing so, he offers policy prescriptions for growing entrepreneurial ecosystems – an area that we also consider in this book but from a gender lens. And while Mason & Brown (2014) suggest that the locality and temporal elements of ecosystems are under-theorized, their work does not address the nature of relationships between and among ecosystems actors, thereby assuming that all actors can be differentiated by type rather than other characteristics (i.e., demography). Mack & Mayer (2016)
focus on the entrepreneurial ecosystems in Phoenix, Arizona to understand perceptions of ecosystem growth while more contemporary work examines the processual nature of ecosystems (Spigel & Harrison, 2018) include focusing on the ways in which ecosystems emerge through complex, inter-related network activities (Roundy et al., 2018).

To date, we find that there is little consideration of the nature of relationships between actors in entrepreneurial ecosystems with some exceptions (Motoyama et al., 2021), despite growing interest. In their recent overview piece, Acs et al. suggest the following in their introduction to the special issue of Small Business Economics on entrepreneurial ecosystems:

The entrepreneurial ecosystem approach has the promise to correct these shortcomings. Its two dominant lineages are the regional development literature and the strategy literature. Both lineages share common roots in ecological systems thinking, providing fresh insights into the interdependence of actors in a particular community to create new value.

(2017, 1)

Even in this most recent examination of entrepreneurial ecosystems, there is little attention to the actors beyond the fact that they exist and are engaged in some relationships or exchange activities. In other words, the focus is on the existence of actors and the connections these actors have to each other and resources. In that sense, the actor and connection aspect is a differentiator between cluster theory and entrepreneurial ecosystems approach. However, as we further suggest, the acknowledgement of actors does not suffice in differentiation between different kinds of actors and the kinds of relationships or exchanges they are engaged in: not all relationships, connections, and exchanges are available to all actors. Moreover, entrepreneurial ecosystems have a problem in terms of unit of analysis: it is not clear who or what is being studied under this umbrella concept. Given the
various and emergent themes of research on this topic and their different focal areas, it seems likely that ecosystem research reaches a point where scholars are studying everything and nothing at the same time.

In fact, when scholars do examine the connections within an ecosystem, their scope expands extremely widely and becomes vague. For instance, Bloom and Dees (2008) differentiate their ecosystem approach from Michael Porter’s economic cluster analysis by including political, cultural, economic, and physical dimensions as important to entrepreneurship activities, but they do not acknowledge the role of networks or connections between/among actors as relevant to this conversation. And while some scholars offer a much more expansive and broad approach to the study of ecosystems, these frameworks do not explicitly focus on who participates or how they participate, (Spigel 2015; Bosma & Holvoet, 2015). Others focus on institutions, but do not provide a refined discussion or differentiation between local and national entrepreneurship systems (Acs, Autio, & Szerb, 2014; Acs et al., 2016), thereby not addressing the fact that actors may or may not participate in the same ways across contexts.

Stangler and Bell-Masterson (2015) note the importance of connectivity in measuring entrepreneurial ecosystems but find that it is difficult to achieve empirically. Some studies examine the connection between a few specific actors within the ecosystem. Águeda (2016) suggests that connectivity between ecosystem founders and investors is relevant for the growth of entrepreneurial ecosystems. Mayer (2011) points out the importance of mentors for entrepreneurs but Scheidgen (2020) suggests that in certain ecosystems, fragmentation leads to certain entrepreneurs connecting to resources, such as mentors, while others are not able to do so. Feldman and Zoller (2012) suggest that dealmakers or intermediaries are important for firm creation, while Kemeny et al. (2016) focus on how local social capital fostered by such dealmakers can be extremely helpful towards new firm creation. Kwon et al. (2020) provide a robust summary of brokerage within
entrepreneurship to highlight the value and role of such action. In more recent work, Stam and Van de Ven (2019) bring together a broad systems perspective with a measurement proposition to link ecosystem elements to successful entrepreneurial outcomes in hopes of impacting policies to support entrepreneurship.

In all, there is a robust and lively stream of research that has started to focus on entrepreneurial ecosystems despite the fact that there is no agreed-on definition or shared understanding of a phenomenon or clarity on the unit of analysis used to understand and research the topic. Thus, it seems that this field-formative stage, aiming to understand how gender is relevant to theorizing and research related to entrepreneurial ecosystems, is quite timely. In particular, world events related to the COVID-19 pandemic as well as those that have surfaced historical racial injustices have called attention to the ways in which rules are made, by whom, and for whose benefit. The discipline of entrepreneurship should be no different. If our theories cannot account for the complexity of the world in which we live, then we must take steps to expand, challenge, and redirect them. While the focus of this book is on theoretical engagement of gender with entrepreneurial ecosystem scholarship, we recognize that the arguments we formulate in this book around the ways gender has served as an organizing principle for many societies and economies in terms of institutions, rights, and governance can also be made for race and ethnicity as well as other relations of difference. Notwithstanding this recognition, we believe understanding gender is essential to producing research that has very real, material consequences for policy and practice – an ethical consideration that warrants our attention not at the expense of race/ethnicity and other differences but one that centers gender, gendering, and gendered formations as part of a broader dialogue of who is included in theory and who is left out. It is in this vein that we forge our understanding of gender, bringing an intersectional understanding arising out of antiracist feminist perspective to our work at the intersections of gender and entrepreneurship.
2.4 MAKING SPACE FOR GENDER IN ENTREPRENEURIAL ECOSYSTEMS

To date, only a few scholars have examined the nuanced complexities of connectivity or how entrepreneurs and ESOs connect and relate to each other (Motoyama & Knowlton, 2016; Motoyama et al., 2021) and who may be left out from such connections and networks (Knowlton et al., 2015). We address this gap by focusing explicitly on gender as an organizing principle of entrepreneurial ecosystems and as an important factor for differentiating between/among actors in ecosystems. Gender as an analytic lens allows us to consider the relational dimensions of ecosystems by providing a nuanced approach to understanding how and why certain actors connect to each other and to resources through ESOs. In this sense, we return to our earlier critique of institutional economics and economic sociology in their espousal of disembodied actors, but do so through a focused critique of entrepreneurial ecosystems research. Here, our contention is this: while entrepreneurial ecosystems recognize the social-relational aspects of actors beyond an economic imperative (thus moving the field beyond the idea of pure economic actors as central to ecosystem theory), there is little understanding of such actors as gendered. In other words, the uptake of gender in entrepreneurial ecosystems research relies on it as a category of difference rather than understanding how the very institutional environments and arrangements are themselves gendered and how this gendering is relevant for understanding any “gender differences” that might arise.

Consequently, in recent years, gender in relation to entrepreneurial ecosystems specifically has been of growing interest to scholars in the broad field of gender and entrepreneurship studies. While this growing interest is important and relevant, much of the recent literature in entrepreneurial ecosystems focuses on gender as categorical sex, comparing women and men. In other words, much of this recent work still understands gender as a binary sex category and focuses on women/female entrepreneurs. For example, Berger and
Kuckertz’s (2016) qualitative research on why certain entrepreneurial ecosystems have a dearth of female founders identifies factors that may help explain the paucity. Their findings suggest that ecosystems with favorable markets, access to talent and capital, startup experience, as well as general gender equality make up the factors related to higher instances of female founders in the ecosystem. They suggest that policies aimed at fostering and supporting entrepreneurship in general may not necessarily translate into support for female entrepreneurs. This is due to the fact that women may associate government support for entrepreneurship as really benefiting males rather than females. Similarly, Simmons et al. (2018) focus on gender gaps in re-entry to entrepreneurship across different national contexts by examining institutions and stigmas associated with business failure. They suggest that ecosystem inefficiencies need to be addressed in order to mitigate such gaps.

Yet what is missing from these conversations is the paucity of women who control capital, not just of those who have tried to gain access to it or the ways in which existing institutions are already gendered. Policies aimed at remediating access to capital for women or those that focus on institutions as if they were gender-neutral do not necessarily recognize or remedy gendered ownership and control of capital in market-based economies; such a recognition would require a conversation about governance and resource allocation at the very least, but also about the creation of institutional environments that favor, maintain, and replicate majority male ownership of capital and control over governance structures.

Other recent work in this domain focuses on the ways women-only networking platforms create gender capital, enabling women to participate in entrepreneurial ecosystems (McAdam, Harrison, & Leitch, 2019). As a point of contrast, other findings suggest that such approaches create parallel and unequal opportunities in the context of tech-entrepreneurship (Ozkazanc-Pan & Clark Muntean, 2018) rather create additional or different opportunities for women to participate in entrepreneurial ecosystems. Additional work in this domain
focuses on how males and females experience support for their start-ups in entrepreneurial ecosystems (Sperber & Linder, 2019) and examines how race, ethnicity, and previous venture experience impact the ways social capital is distributed among women entrepreneurs in entrepreneurial ecosystems (Neumeyer et al., 2018). Or in some instances, scholars use terms like “gendered” without a full explanation or understanding of what gendered might mean in relation to entrepreneurial ecosystems (Brush et al., 2018), actors and ESOs.

In all, much of these recent publications and research on entrepreneurial ecosystems replicate the approach utilized in the women’s entrepreneurship literature, which we review in the next chapter through feminist frameworks, whereby gender and sex are used interchangeably and comparisons between male and female entrepreneurs offered. As such, our book provides novel insights as to the ways gender “makes a difference” in how entrepreneurial ecosystems are theorized and studied in relation to individual actors/entrepreneurs, ESOs, and broader sociocultural norms by deriving insights from gender studies and feminist perspectives. Our contention is that it’s not only “differences” between the actors in entrepreneurial ecosystems that accounts for the ways women experience and engage within ecosystems, but that the very ways in which entrepreneurial ecosystem are conceptualized and studied inclusive of the concepts available do not allow for an examination of gendered ideas, norms, and practices of entrepreneurship arising from gendered informal institution, environments, governance, and resource allocation.

Our approach is to bring in key concepts from gender studies to provide three important contributions to the study of entrepreneurial ecosystems. The first contribution emanates from an analysis and conceptualization of actors in entrepreneurial ecosystems as gendered and embodied rather than disembodied and homogenous. Fundamentally, this changes how entrepreneurial ecosystems are theorized and studied in relation to who participates, connects to each other, and connects to resources. Second, we focus on the ways gender, gender relations, and gendering take shape individually at
different “levels” – the micro, meso, and macro – in ecosystems. At
the micro level, we focus on individual entrepreneurs and biases, at
the meso level, we focus on entrepreneurship support organizations
and networks, and at the macro level, we focus on broader sociocul-
tural norms and policies that impact gender, gender relations, and
gendering. Our analysis at each level addresses the ways gender makes
a difference for how we theorize and understand entrepreneurial eco-
systems with respect to the concept/level in question. Our third and
final contribution is to develop a holistic framework for studying
gender at all three levels simultaneously and to provide novel insights
for the rethinking entrepreneurial ecosystems as gendered, embodied,
and relational systems for entrepreneurship activities. This frame-
work allows us to provide recommendations for policymakers who
want to support entrepreneurship and support inclusive economic
development activities in their cities.

It further allows us to remark that the field of entrepreneurial
ecosystems specifically and entrepreneurship broadly require urgent
engagement with the complexities of the political, social, and cultural
kind to carry out research and offer insights that do not replicate
gendered inequalities in economic opportunities. If entrepreneurship
is seen as a way for women to gain economic empowerment and
autonomy across the globe, then our theories for understanding and
studying the institutional systems that can allow this social change to
take shape must be able to account for gender in the first place. We
demonstrate this through our empirical work in the following three
chapters, focusing explicitly on individual, organizational, and insti-
tutional level considerations arising from feminist critique and analy-
sis. And at each level, we do so by highlighting those assumptions,
practices, and policies that arise from gendered frameworks with the
intention of shedding light on blind spots that continue to operate
without challenge or remedy in contemporary society.

Witnessing the gendered and racialized outcomes of the ongoing
pandemic coupled with social and civil unrest behooves us as scholars
to understand and address the ways our theories about the social and
the economic domains may contribute to continued blind spots. We believe that it is our duty as responsible scholars to expand our current approaches and theories to be able to account for the complexities, paradoxes, and lived experiences of groups traditionally marginalized from entrepreneurship scholars. We undertake this engagement through the frameworks and concepts derived from feminist perspectives and use them to provide an understanding of the various elements of entrepreneurial ecosystems and, ultimately, to make recommendations for a holistic approach to gender-inclusive economic development policies.

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