

The role of community colleges in economic development: A case study of internal and external stakeholders' perceptions

by

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B.S., California State University San Marcos, 1997
M.B.A., California State University San Marcos, 1998

AN ABSTRACT OF A DISSERTATION

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Abstract

Communities strive to grow economically to improve the quality of life of their citizens. Community colleges have long been a key driver of local economic development through education and workforce development programs. Over the past few decades, community colleges have increased their involvement in economic development activities beyond their traditional roles. Some believe the expansion of the role of community colleges to be a natural extension of their mission, while others are concerned this expansion may divert scarce resources into activities that dilute their core mission. Advances in technology, especially in the areas of artificial intelligence and automation, threaten to displace workers at an ever-increasing pace. Additionally, changing technology will require skilled technical workers to constantly retrain throughout their careers.

Most studies examining the role of community colleges in economic development tend to focus on direct economic impacts: total payroll, purchasing, and support costs. Few studies have explored how community colleges work within their local regions to drive growth and expand the economy. Therefore, the purpose of this study was to explore the perceptions of internal and external stakeholders of the role of the community college in regional economic development activities, and to identify areas of agreement and gaps in the alignment of perceptions of the various internal and external stakeholders. Research in this area is important to better understand where interaction and support between interdependent actors can be optimized to produce more effective outcomes for economic development efforts through better alignment of resources.

The study methodology used a qualitative case study approach examining the perceptions of internal and external stakeholders within a community college service area. The primary data collection method was semistructured interviews with twenty key stakeholders, both internal and

external to the organization. Additional data was gathered from economic development plans and documents from the communities in the region to determine whether or not there was a cohesive vision in the region for economic development for the college to align its activities to. The study utilized three theoretical frameworks: Isenberg's (2014) entrepreneurial ecosystems, Emery and Flora's (2006) community capitals, and Florida's (2014) creative class theories. Each framework provided a means to assess the community context for the study.

The results of the study indicated the local college is highly regarded in the community, and many of the programs of the college are perceived to be effective. At the same time, both internal and external stakeholders perceived significant room for improvement. Additionally, the study found evidence suggesting structures within the region for supporting strong economic growth are not ideal, and there is a lack of cohesion among the local communities for developing a vision for economic development. Recommendations for practitioners are presented for consideration in cultivating improved conditions to spur economic growth and better align resources and activities to increase the effectiveness of programs and strengthen the role of community colleges. Expanding this research may increase understanding of how colleges effectively integrate within their communities to spur economic growth and prosperity.

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Dedication

This dissertation is dedicated to all of the hard-working professionals at community colleges throughout this great nation, and to all of the courageous students who sacrifice so much for the promise of a better life.

Chapter 1 - Introduction

Most communities actively seek to develop their economies to improve the overall prosperity of their citizens, which includes increasing the number of jobs available and an increasing standard of living (Spigel & Harrison, 2018). O'Banion (2019b) wrote, "Work is so basic to human survival that it is hardly necessary to make a case for workforce education as a social and economic necessity" (p. 216). Economic development generally involves a number of interdependent organizations acting independently, each having a unique role in economic development activities (Cantor, 1991). A key strategy of economic development in the United States has been workforce development through education and job training, of which community colleges have had a long history of being primary providers of such programs (Jacobs & Worth, 2019). Over the years, community colleges have expanded their role beyond being workforce education providers to actively engaged participants in regional economic development efforts (Dougherty & Bakia, 1999). The purpose of this study was to explore the perceptions of internal and external stakeholders of the role of the community college in economic development activities, and to identify areas of agreement and gaps in the alignment of the perceptions of the various internal and external stakeholders.

Statement of the Problem

Many studies examining the impact of community colleges on the local economy have tended to focus on the direct economic contributions of the college: total payroll, purchases, and other measurable economic activities (Pennington et al., 2001). Few studies have focused on the impact of community colleges' activities on local economies through job creation and wage growth (Pennington et al., 2001); yet, it is widely agreed community colleges are essential to local and regional economic development efforts (Adams et al., 2013; Jacobs & Worth, 2019;

O'Banion, 2019a). A review of the literature revealed a need for research on the role of community colleges in local and regional economic development activities and how they interact with other entities in the community (Spigel, 2017).

Existing quantitative studies have consistently demonstrated there are differences in perceptions between local businesses and community colleges as to the effectiveness of community college economic development activities (Boone, 1994; Chen, 1995; Kingry & Cole, 1985; Singleton, 2018). Kingry and Cole (1985) noted the perspectives of other external stakeholders, such as governmental agencies and nonprofit organizations, should be studied to gain a deeper understanding. Singleton's (2018) literature search was unable to locate any qualitative research in this topic area, indicating the need for more in-depth research.

The researcher anticipated that by examining the perceptions of internal and external stakeholders' views of the role of community colleges, gaps between the services needed by the community and the services being offered by the local college might be identified. As Cantor (1991) noted, "Success in economic development for a fuller employment is highly dependent on mutual cooperative efforts between communities and their various public and private institutions" (pp. 125–126). Better alignment of resources and activities among actors in the local economic ecosystem is important for impactful economic development efforts (Sussan & Marine, 2018; Ton-Quinlivan, 2017). Schott (2012) noted by some estimates, there is a 30% gap between the skills students obtain in higher education and the needs of employers. Additionally, Jenkins and Fink (2021) argued a primary cause of the declining enrollment trends nationally among community colleges is too few programs lead to living-wage jobs. Alignment between the economic development activities of community colleges and local industry needs is critical for

colleges to effectively contribute to local economic development efforts (Carnevale & Desrochers, 2001; Wang & Horton, 2020).

Background and Context of the Problem

Economic growth is vital for communities to thrive and prosper (Adams et al., 2013; Orphan & McClure, 2019; Pennington et al., 2001). Communities actively seek to develop their local economies for a variety of reasons, including reversing economic decay, revitalization, offsetting the negative economic effects of declining business, addressing economic inequities, diversifying the local economic base, and providing new opportunities for its citizens (Currid-Halkett & Stolarick, 2013; Jacobs & Worth, 2019). Still, numerous scholars have warned many economic development strategies can exacerbate existing inequities, and development efforts must be deliberate in addressing inequities to avoid shutting traditionally disadvantaged populations out of economic prosperity (Florida, 2019; Griffin & Cormier, 2020; Kretzmann & McKnight, 1996; Lowe et al., 2011; Ross et al., 2020; Spigel & Harrison, 2018).

In addition, rapidly changing technology and the onset of the fourth industrial revolution have created demand for skilled knowledge workers, which requires an educational structure that can quickly adapt to meet the needs of private firms in an entrepreneurial ecosystem (Adams et al., 2013; Spigel, 2017; Wang & Horton, 2020). Demand for knowledge workers who need specific skills that do not always require a college degree, but do require some sort of postsecondary training, is expected to continue to grow as a trend (Florida, 2019; Labi, 2014). Consequently, as the global economy increasingly shifts to a knowledge-based economy, constant and continual investment in human capital is required (Carnevale & Desrochers, 2001; Garmise, 2009). As Kanter (2003) explained, “These intangible resources are portable and fluid, and they decline rapidly in value if not constantly updated” (para. 9). Additionally, to attract new

businesses and develop new local resources, communities need to find ways to distinguish themselves from other communities (Kanter, 2003).

Many researchers have noted the increasing rate of change in technologies requires education and training systems to be far more agile and able to quickly respond than the current traditional and bureaucratic institutions that exist today (Prisecaru, 2016). In response, innovative approaches to workforce development have emerged through grants and investments by governmental agencies and private foundations, which have resulted in many new strategies, such as competency-based education (CBE) and work-based learning, customized learning, microcredentials, industry specific certifications, and prior learning assessments (The Council for Adult and Experiential Learning, 2008).

The Role of Community Colleges

Embedded in their regions, community colleges are ideally positioned to provide several strategies in support of economic development efforts; yet, research suggests community college services are underutilized by local industry (Boone, 1994; Osterman & Weaver, 2016). Although there may be many reasons for this, research indicates a primary reason may be that business managers often do not have a relationship with local colleges, and subsequently may not be aware of available programs and services offered (Osterman & Weaver, 2016).

In their 1985 review of the literature, Kingry and Cole identified 23 economic development activities in which community colleges commonly involved themselves. Boone (1994) later refined the list to 18 economic development strategies commonly used by community colleges nationwide. Singleton (2018) placed most economic development activities of community colleges into two broad categories: workforce development and community development. Those activities imply goals for specific outcomes; yet, not all actors involved in a

regional system are likely to have the same goals, such as job creation or student success (Isenberg, 2014). As Isenberg (2014) noted, “Because no one owns or represents an entrepreneurship ecosystem, there can be no one objective that motivates all of the actors” (para. 7).

Study Subject

The subject of the study was College of the Desert and its service area in southern California. Located in the heart of the Coachella Valley, the college is approximately 120 miles east of Los Angeles, and is geographically isolated from the coastal cities by a mountain range. The Coachella Valley has a population of nearly 450,000; yet, the local economy is concentrated in just a few sectors, with one in four jobs in the hospitality/food service sector (Coachella Valley Economic Partnership, 2020). The Great Recession resulted in high-wage jobs lost in the region, with post recovery jobs growing in low-wage sectors (Coachella Valley Economic Partnership, 2019). The COVID-19 global pandemic has been particularly devastating to the region, with the hardest-hit sector for job losses being leisure and hospitality (Keil et al., 2021). In the Great Recession, many high-paying jobs in construction were lost and replaced by low-paying jobs in hospitality (Keil et al., 2021). The COVID-19 global pandemic has resulted in a loss of jobs in the hospitality industry, which are not being replaced at all (Keil et al., 2021). Such job loss reflects statewide trends in which the most negatively impacted communities include traditionally underserved populations and women (Keil et al., 2021). Additionally, with the advent of the fourth industrial revolution there is a greater recognition of the need to diversify the economic base of the Coachella Valley and offer pathways out of low-paying, seasonal careers that are becoming the target of increased automation (Keil et al., 2021).

College of the Desert made an ideal case study for the role of the community college in local economic development. The relative geographic isolation provides a naturally bounded economic region with clearly identifiable stakeholder groups, with College of the Desert being the only public 2-year educational institution in the area. Additionally, significant socioeconomic inequities exist, especially for the younger populations in the valley (Keil et al., 2021). The Coachella Valley as a region is an attractive retirement community for the wealthy; yet, there are few high-paying jobs in the region that would allow significant upward mobility (Keil et al., 2021).

Purpose of the Study

The purpose of this study was to explore the perceptions of internal and external stakeholders of the role of the community college in regional economic development activities, and to identify areas of agreement and gaps in the alignment of perceptions of the various internal and external stakeholders. Research in this area is important to better understand where interaction and support between interdependent actors can be optimized to produce more effective outcomes for economic development efforts through better alignment of resources (Carnevale & Desrochers, 2001; Orphan & McClure, 2019).

Research Questions

Five research questions guided the study to explore the perceptions of key internal and external stakeholders of the role of the community college in economic development activities, and to identify areas of agreement and gaps in the alignment of the perceptions of internal and external stakeholders.

Research Question 1: What do external stakeholders currently perceive the role of the local community college to be in local economic development efforts?

Research Question 2: What expectations do external stakeholders have for the role of their local community college in local economic development efforts?

Research Question 3: What do internal stakeholders perceive the current role of their institution to be in local economic development efforts?

Research Question 4: What expectations do internal stakeholders have for the role of their institution in local economic development efforts?

Research Question 5: What economic development goals are common and dissimilar among stakeholders?

Theoretical and Conceptual Frameworks

Three theoretical frameworks were used to direct the focus of this study: entrepreneurial ecosystems (Isenberg, 2014), community capitals framework (Emery & Flora, 2006), and creative class theory (Florida, 2014).

A review of basic economic growth theory led to the identification of applicable frameworks. Neoclassical economics, characterized by the familiar “supply and demand” model, relies on industries’ abilities to produce economic growth from a combination of three basic ingredients: land, labor, and capital (Kemmerer, 1956). This model also assumes technological innovations are developed outside of the economic system (Romer, 1994). During the 1980s and 1990s, researchers developed the *endogenous growth* theory, also known as *new growth* theory, in which economic growth comes from a geographically bounded economic system (i.e., state, country, or region), primarily through the development of human capital (Barreto & Kobayashi, 2015; Romer, 1994). Education is a direct activity in developing human capital, thereby inherently placing educational institutions in a prominent role in an economic system in developing continuous economic growth (Spigel & Harrison, 2018; Tyndorf & Glass, 2017).

Early economic growth theory focused on a system of three general groups working along parallel paths in an identifiable system: government, private firms, and educational institutions (Cantor, 1991; Zhipeng Cao & Mei Zhou, 2018). More recently, theorists have introduced the idea of an *entrepreneurship ecosystem* as a framework for economic development (Isenberg, 2014). Sussan and Marine (2018) explained, “With its roots in biology, an entrepreneurial ecosystem consists of a number of independent stakeholders playing different roles, yet with a common focus on cooperation aimed at optimizing their own performance” (p. 5). This model suggests an entrepreneurial ecosystem would function best with cooperative relationships among stakeholders (Spigel & Harrison, 2018). Spigel and Harrison (2018) further refined this idea into the *process theory of entrepreneurial ecosystems*, in which key resources are developed, fed into, and accessed through social networks in a particular community or region. Key required resources include a supportive regulatory environment, access to a skilled workforce, physical infrastructure, and financial capital.

The study also used the community capitals framework, which identifies seven specific capitals found in a community: natural, cultural, human, social, political, financial, and built (Emery & Flora, 2006). Emery and Flora (2006) developed this framework to provide the ability to inventory types of assets in the capitals, how they are used, and how they interact in economic development efforts. They argued neglect of investment in community capitals leads to downward spiral, whereas investment in community capitals results in “spiraling-up” (Emery & Flora, 2006, p. 20).

Finally, Florida’s (2014) creative class theory was also used. Creative class theory asserts three specific criteria are key components to regional economic growth: technology, talent, and tolerance (Florida, 2019). Florida (2019) called these criteria the “3Ts of economic

development” (p. 228). The underlying idea is creative knowledge workers are attracted to specific communities based on quality of life factors, and that companies follow workers, workers do not follow the companies, as was generally assumed in the past by most theorists (Florida, 2014).

These frameworks fit this research well in that they built a regionally based boundary around a holistic system of factors key to economic development. Relevant external stakeholders can be identified as being within the boundaries of the ecosystem and contributing various types of capitals. These include governmental and regulatory agencies, local businesses, potential investors, umbrella organizations including chambers of commerce and economic development boards, and educational institutions. This forms the lens through which each independent player’s role is connected through an interdependent system (Spigel, 2017).

Methodology

The study methodology used a qualitative case study approach examining the perceptions of internal and external stakeholders of the College of the Desert and its service area. College of the Desert is a single college community college district in southern California. The study focused on stakeholders’ perceptions of the role of College of the Desert in local economic development efforts. The primary data collection method was semistructured interviews with key stakeholders. This structure allowed the researcher the flexibility to follow “unexpected pathways [which] appear during the collection and analysis” of the data (Lochmiller & Lester, 2017, p. 99). The review of documents, webpages, newspapers, and other sources provided descriptive data to establish the context and nature of the local ecosystem (Lochmiller & Lester, 2017).

The case study approach was bounded by the stakeholders as identified in the entrepreneurial ecosystem. The case study method, “in which there are a set of parts or operations that work together to create the whole” (Lochmiller & Lester, 2017, p. 102), fit well with the study framework, which comprised a system “highly dependent on mutual cooperative efforts between communities and their various public and private institutions” (Cantor, 1991, pp. 125–126). The stakeholders were selected from the groups identified in the economic ecosystem model.

Delimitations and Assumptions

The study focused on a single community college and its service area in southern California. Participants were selected based on their identification as a stakeholder in the entrepreneurial ecosystem of the region. External stakeholders included members from local businesses, umbrella organizations, governments, community benefit organizations, and educational institutions. Internal stakeholders included full-time instructional and noninstructional faculty, adjunct faculty, an elected official, and administrators.

It was assumed interviewees were honest in their replies and they had the knowledge and qualifications to represent the group in the economic ecosystem with which they were identified. Efforts were made to thoroughly explain the study purpose and process to participants to minimize bias in responses that may have risen from the researcher being identified with the College of the Desert.

Significance of the Study

This study sought to expand research and add to the knowledge base of the role of community colleges in local and regional economic development activities. Community colleges nationwide enrolled more than 8.2 million students during the 2018–2019 academic year

(National Center for Education Statistics, n.d.). Given the size and scope of the U.S. community college system, the economic impact of the community college system on local communities is significant. Many of the nation's most vulnerable and underserved populations rely on community colleges for quality, relevant workforce preparation as a pathway to a more prosperous future (Garmise, 2009; Wang & Horton, 2020). Additionally, rapidly changing technology has led to a knowledge-based economy in which technical knowledge now faces a "half-life" (Khan et al., 2004; Penprase, 2018), leading to a need for continual and lifelong skill updating (Carnevale & Desrochers, 2001; Penprase, 2018).

By examining the perceptions of internal and external stakeholders, this study aimed to add to the understanding of these complex, interdependent relationships in an economic ecosystem. This work is important in identifying gaps to improve the interaction among the stakeholders, and by extension, improving the effectiveness in economic development efforts.

This study provides insights into the perceived and desired roles of community colleges in economic development activities, thereby increasing the body of knowledge in this topic area. The study results may be useful for practitioners in developing innovative strategies to provide responsive and agile training and education programs for students that meet external stakeholder expectations and needs. These results may be helpful in directing scarce fiscal resources to more impactful activities.

Definitions of Terms

The following definitions were used in the study.

Agile organization: An organization that, according to Greineder et al., 2020:

Increases its speed and flexibility (a) in fast changing environments (b) by a strategic orientation in sensing and responding, by (c) a functional alignment of knowledge and

fluidity of resources (d) and by an operational team & working environment for optimal customer centric product delivery. (p. 4)

Career technical education (CTE): A program of study “that integrates core academic knowledge with technical and occupational knowledge to provide students with a pathway to postsecondary education and careers” (California Department of Education, n.d., para. 1).

Community capitals: Seven specific capitals or assets present within a given community: natural, cultural, human, social, political, financial, and built (Emery & Flora, 2006).

Creative class: “Jobs in knowledge-intensive industries that involve the production of new ideas and products, or that engage in creative problem solving” (Florida, 2014, p. 197).

Economic development (local): Economic development is a very broad term that has many meanings based on its context. The focus of this study is *local* economic development defined as “an organized, planned, and cooperative effort between the public and private sectors to improve community economic conditions” (Cantor, 1991, p. 127).

Economic growth: This study used the definition refined by Y. S. Lee (2018): “The process of progressive transformation of an economy leading to higher productivity and increases in income for the majority of population” (p. 1).

Entrepreneurship ecosystem / entrepreneurial ecosystem: A metaphor for fostering entrepreneurship as an economic development strategy (Isenberg, 2014). Both terms are used interchangeably.

Endogenous growth theory: Economic theory that growth in human capital can provide increasing returns in economic development (Romer, 1994). Synonymous with *new growth* theory (Barreto & Kobayashi, 2015).

External stakeholders: For the purposes of this study, external stakeholders were any persons or group not directly employed by, or contracted with the College of the Desert.

Human capital: Intangible collective resources possessed by individuals and groups within a given population. These resources include all the knowledge, talents, skills, abilities, experience, intelligence, training, judgment, and wisdom possessed individually and collectively, the cumulative total of which represents a form of wealth available to nations and organizations to accomplish their goals (Huff, 2018).

Internal stakeholders: For the purposes of this study, internal stakeholders are identified as faculty, staff, contractors, and administrators of the College of the Desert.

New growth theory: Economic theory that growth in human capital provides increasing returns in economic development (Romer, 1994). Synonymous with *endogenous growth* theory (Barreto & Kobayashi, 2015).

Stakeholder perception: A stakeholders' point of view regarding a particular issue or circumstance.

Workforce development: The coordination of public and private sector policies and programs that provides individuals with the opportunity for a sustainable livelihood and helps organizations achieve exemplary goals, consistent with the societal context (Jacobs & Hawley, 2009). For the purposes of this study, the term *workforce development* will focus on the activities and programs of community colleges to provide workforce training and support services.

Workforce intermediary: An organization that connects job seekers to employers (Looney & King, 2005).

Chapter Summary

The role community colleges play in local economic development activities is well recognized, but under researched. This chapter provides an overview of the study of the perceptions of internal and external stakeholders of the role of College of the Desert in local economic development activities. The overview included a discussion of the problem, the purpose of the study, and a summary of the study methodology. Three theoretical frameworks were presented as a lens for guiding this study. Study delimitations and assumptions were also reviewed. Definitions of key terms were presented.

Organization of the Dissertation

Chapter 1 provided the introduction and components of the study. Chapter 2 provides an in-depth literature review of studies associated with the subject area and identifies gaps in research. Chapter 3 reviews the study methodology. Chapter 4 presents the study results and analysis. Chapter 5 offers a discussion of the findings, implications of the study, recommendations for stakeholders, and researcher recommendations for future studies.

Chapter 2 - Literature Review

The literature reviewed in this chapter provides relevant background and theoretical frameworks appropriate to frame research on the role of community colleges in local economic development. This chapter is organized to provide background on the concept of economic development, explore theoretical frameworks to guide the research, establish the historical context of community college efforts in economic development, examine the expanding role of community colleges in economic development activities, and identify gaps in existing research.

Literature Search

The search for relevant literature focused primarily on scholarly journals, but also included books by prominent authors, relevant reports, and periodicals. Primary search terms included, “role of community colleges in economic development,” “community colleges” AND “economic growth,” “economic growth theory,” “workforce development,” “workforce development” AND “economic development,” “workforce development” AND “innovation,” “entrepreneurship ecosystems,” “entrepreneurial ecosystems,” “equitable economic development,” “the fourth industrial revolution,” and “creative class.”

Dates in the searches were left unconstrained. Results for searches themed around “community colleges role in economic development” found most scholarly research in this area was conducted from the mid-1980s to the late-1990s. Works after that period focused on entrepreneurship and entrepreneurial education. Works written around “entrepreneurial ecosystems” spanned from the late-1990s to 2021, with many works completed after 2015. Additionally, the Fourth Industrial Revolution and recent developments due to the COVID-19 global pandemic have spurred writings on the impacts to the labor force going forward.

Economic Development as a Concept

The term economic development is broad and has no universally accepted meaning (C. S. Lee, 2010). In general, *economic development* refers to the progression of growth that leads to higher productivity and higher incomes for the majority of the people in that economy (C. S. Lee, 2010). Much of the literature on economic development focuses on economic growth of developing countries; yet, because of growing income and wealth gaps, economic development and economic value creation concepts are also relevant for developed countries (C. S. Lee, 2010; Stam & Spigel, 2016).

Researchers recognize that economic development in developed countries is generally localized to a specific community or region (Brown, 2010; Currid-Halkett & Stolarick, 2013; Florida, 2019). There are numerous reasons for which communities actively engage in economic development activities: to prevent economic stagnation; revitalize decaying communities; replace obsolete industries; increase overall community prosperity; and/or provide opportunities for disadvantaged populations (Y. S. Lee, 2018; Steinkamp, 2004; Tyndorf & Glass, 2017).

Economic Development Theories

Reviewing research literature on economic development revealed a rich history of theory that has evolved with the development of technology. Understanding the background and development of economic theory was informative in identifying appropriate frameworks through which to study modern economic development in developed countries. Three theoretical frameworks were identified for the proposed study: (a) entrepreneurial ecosystems, (b) community capitals, and (c) creative class theory.

Economic Development Theory Background

Early economic theory viewed growth as emanating from a combination of available land, labor, and natural resources (Kemmerer, 1956). Competitive advantage was gained by firms who attained these resources at the lowest possible cost (Kemmerer, 1956). Under this view, innovation and technological advances which contributed to growth were assumed to come from outside of the localized economic system (Romer, 1994; Tyndorf & Glass, 2017). As economies have transitioned from manufacturing and production-based toward service and knowledge-based, traditional economic theories have proven insufficient to explain modern economic growth (Romer, 1994; Tyndorf & Glass, 2017). As Romer (1994) explained, “we had enough evidence to reject all the available growth models throughout the 1950s, 1960s, and 1970s” (p. 12). New models of endogenous growth, or growth from within, began to emerge in the 1980s which put forward the idea that investment in human capital creates new knowledge, and that new knowledge fuels sustained economic growth (Romer, 1994). Most importantly, endogenous growth theory, also known as new growth theory, assumes that the development of new knowledge comes from within an economic system, and is self-sustaining as it is built on existing knowledge (Barreto & Kobayashi, 2015; Romer, 1994). This is in contrast to exogenous growth, which theorizes that growth primarily comes from the addition of new resources from outside of the system (Romer, 1994).

As the new growth theory began to take form, researchers began to seek to understand how the flow of ideas within an economic system generated growth (Rivera-Batiz & Romer, 1991). A new theory, known as the “General Theory of Economic Development” (Y. S. Lee, 2018, p. 9) emerged, which identified a cooperative network comprised of corporations, markets, and government. This model attributed growth through the granting of selective advantages to

the top performers, termed “economic discrimination” (Y. S. Lee, 2018, p. 10). Other researchers recognized the interaction of actors in a network; yet, to account for the creation and transmission of new knowledge, researchers identified the main entities to be government, enterprises, and universities, including vocational colleges (Zhipeng Cao & Mei Zhou, 2018). This stemmed from a belief that new knowledge comes from original research at universities and is transferred through education (Zhipeng Cao & Mei Zhou, 2018).

Early research also focused on the factors present in the successful development of high-tech and innovative firms in a region, including industry clusters and regional innovation systems (Florida, 2014; Spigel & Harrison, 2018). These theories looked at the conditions present in a region that create competitive advantages for firms by concentrating specific resources, such as a strong base of an existing skilled workforce (Spigel & Harrison, 2018). These theories, however, do not provide an understanding of how firms access those resources and create high levels of local growth (Spigel & Harrison, 2018).

Entrepreneurial Ecosystems

Recent theories propose high-growth economic development in the knowledge economy happens in a sophisticated and highly complex environment identified as an “entrepreneurial ecosystem” (Isenberg, 2014; Spigel, 2017; Sussan & Marine, 2018). Stam and Spigel (2016) defined entrepreneurial ecosystems as, “A set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship in a particular territory” (p. 1). Isenberg’s (2011) six domains of the entrepreneurial ecosystem identifies factors that are present in a complete ecosystem: policy, finance, culture, supports, human capital, and markets. Although this framework is very broad and complex, activity in the domains are carried out through specific actors in a specific location (Spigel & Harrison, 2018). Stam and Spigel (2016)

also supported the importance of the role of those in the system, asserting, “The entrepreneurial ecosystem approach emphasizes entrepreneurship takes place in a community of interdependent actors” (p. 2). Rattan (2020) also emphasized the tie between the ecosystem and the community, noting, “An understanding of entrepreneurial ecosystems is best understood by reference to its cultural and social setting” (p. 447). Isenberg (2011) reinforced the importance of the locality of an ecosystem, writing, “Entrepreneurship, to be self-sustaining, requires an ecosystem, and an ecosystem requires proximity so the different domains can evolve together and become mutually reinforcing” (p. 11).

The entrepreneurial ecosystem framework identifies roles of players who are connected through formal and informal social networks, and whose interactions generate economic growth (Spigel, 2017). Inkpen and Tsang (2005) noted social capital developed through these networks plays a large role in knowledge transfer among actors. They noted a growing body of research reveals “organizations able to transfer knowledge effectively from one organizational unit to another are more productive than organizations that are less capable of knowledge transfer” (Inkpen & Tsang, p. 149).

Also important to this theory is the notion that a culture of innovation and entrepreneurship drives increases in technology and its application (Spigel, 2017). Knowledge creation and knowledge transfer are two critical factors for sustained growth (Rivera-Batiz & Romer, 1991). Within entrepreneurial ecosystems, higher education institutions act in three important roles: knowledge creation (i.e., research), knowledge transfer (i.e., teaching and training), and workforce intermediation (i.e., connecting job seekers with employers in the ecosystem; Lowe et al., 2011; Velluzzi, 2010). In general, universities are major sources of

knowledge creation and transfer and community colleges are key providers of knowledge transfer and intermediation (Tyndorf & Glass, 2017).

Researchers have expressed there is limited academic research on entrepreneurial ecosystems, even though the concept has become popular in management periodicals (Ratten, 2020; Spigel & Harrison, 2018). Much of the available literature is not grounded in theory, but focuses on successful examples of implementation to identify best practices (Spigel & Harrison, 2018). Spigel and Harrison (2018) concluded more research needs to be done on which individual components are most important, and how entrepreneurs access resources in the ecosystem to generate growth.

Community Capitals

Emery and Flora (2006) put forward a framework identifying seven capitals found in a community that are assets used for economic growth. Emery and Flora identified these capitals as natural, cultural, human, social, political, financial, and built. In their scheme, natural capital refers to naturally occurring features that include natural resources, weather, geography, and even natural beauty. Cultural capital encompasses the culture of the community, including language and traditions. Human capital includes the collective knowledge, skills, and capabilities of the community and their ability to develop and use other resources. Social capital refers to the way that community members and groups relate to each other and develop networks to work in cohesion. Political capital describes the ability to access power and direct resources. Financial capital is the financial support available to develop new and growing businesses. Built capital includes all of the physical buildings and supporting infrastructure in a community. Each capital is viewed by its availability for strategically supporting community economic growth and countering declines in specific capital areas to prevent a continued downward spiral (Emery &

Flora, 2006). This framework was relevant to the study by providing a means of identifying themes as stakeholders reflect on the roles of each actor in the entrepreneurial ecosystem, and how they perceive community assets and how they are used to support growth.

Creative Class Theory

Creative class theory identifies three elements of technology, talent, and tolerance, which appear highly correlated with above normal economic growth when present in a community (Florida, 2014). Technology refers to the infrastructure and general presence of advanced technology in a community (Florida, 2019). Talent refers to the presence of a “skilled, ambitious, educated, and entrepreneurial people” (Florida, 2019, p. 232). Tolerance describes a community’s openness to individual, or “demographic” diversity (Florida, 2019, p. 232).

This theory has garnered attention among economic development professionals seeking to attract new economic activity to their communities (Currid-Halkett & Stolarick, 2013). Florida (2019) asserted attracting a highly creative workforce fuels growth because it is an inexhaustible resource. Creative class theory has withstood many critical challenges, and although not a universal approach to all economic development situations, the resiliency of this theory is useful for valuable insights in evaluating community context in economic growth (Currid-Halkett & Stolarick, 2013). Additionally, this theory was relevant to the study as it points to the role of education in encouraging and developing creativity, and provides a lens through which to view the regional economic development strategies for cohesion around the purpose of economic growth.

Theoretical Framework Summary

The three frameworks together create a holistic lens that accounts for the assets in a community and activities of interdependent, yet independent players in a bounded system,

making this an ideal lens for understanding the economic environment found in the subject community. See Appendix A for a depiction of the interrelationships between the three frameworks.

The Fourth Industrial Revolution

Many experts believe global society is in the early stages of what is commonly referred to as “the fourth industrial revolution” (4IR), a term coined by Klaus Schwab through the World Economic Forum (Yang & Cheng, 2018). In Table 1, Prisecaru (2016) outlined some of the major characteristics of each of the four industrial revolutions (p. 57).

Table 2.1. Main Characteristics of the Four Industrial Revolutions

Period	Transition period	Energy resource	Main technical achievement	Main developed industries	Transport means
I.1760–1900	1860–1900	Coal	Steam engine	Textile, steel	Train
II.1900–1960	1940–1960	Oil, electricity	Internal combustion engine	Metallurgy, auto, machine building	Train, car
III.1960–2000	1980–2000	Nuclear energy, natural gas	Computers, robots	Auto, chemistry	Car, plane
IV.2000–	2000–2010	Green energies	Internet, 3D printer, genetic engineering	High tech industries	Electric car, Ultra fast train

Note. From “Challenges of the Fourth Industrial Revolution,” by P. Prisecaru, 2016, *Knowledge Horizons Economics*, 8(1), p. 57 (<http://orizonturi.ucdc.ro/arhiva/khe-vol8-nr1-2016/09.%20Petre%20Prisecaru.pdf>). Copyright 2016 by Pro Universitaria.

Historically, each industrial age has increased productivity by approximately 50 times over each prior era (Xu et al., 2018). Productivity in the first two industrial revolutions relied on

the physical capabilities of the human workforce, whereas the next two eras rely on knowledge for productivity gains (Xu et al., 2018). The 4IR encompasses advancements built on technologies developed during the third industrial revolution, and is characterized by a rapid pace of change beyond anything experienced in history (Xu et al., 2018). The leveraging of technology to generate data and increase automation is expected to create significant disruption in global labor markets on an ongoing basis (Gleason, 2018). Studies have shown in most developed regions, nearly half of the jobs can be automated (Gleason, 2018). As unskilled work in specific industries (e.g., manufacturing) are especially conducive to automation, skilled jobs such as accounting are also vulnerable (Gleason, 2018). Gleason (2018) illustrated the significance of the issue in the United States, noting, “In the United States 60.6 million, or 46% of the workforce, are currently in automatable jobs” (p. 4). Prisecaru (2016) stated the 4IR not only presents many challenges, but great opportunities as well.

Implications of the Fourth Industrial Revolution for Higher Education

The rapid change in, and adoption of, automated technologies has significant implications for higher education in training for the skills needed going forward. As Penprase (2018) explained, “The hallmark of the 4IR is exponential growth and rapid change, which gives the curriculum an imperative to update content on an unprecedented frequency to match the rapid tempo of scientific and technological advances” (p. 223). Gleason (2018) noted, “Many of the new jobs that will exist even ten years from now, we cannot imagine yet” (p. 4). This rapid pace of change indicates the need for continuous upskilling and lifelong learning (Gleason, 2018). Penprase (2018) pointed to the need for skill renewal, arguing:

The shelf life of any skill in the present-day environment has become increasingly short, requiring future workers to continuously update their skills and teach themselves about

new technologies and new industries that may not have existed while they were being trained for their initial degrees. (p. 220)

Lewis (2018) reinforced this point by stating: “In this environment, preparing students for a single job for life no longer makes sense” (pp. 22–23).

In the 4IR the environment, data security, and unknown effects of widespread use of artificial intelligence are expected to pose significant challenges for the current and future generations (Prisecaru, 2016; Xu et al., 2018). Prisecaru (2016) further predicted a significant shortage of people with the specialized skills needed to navigate through these challenges:

Students need to acquire an education which is not quantitative but specialized and qualitative, focusing on the demands of the moment. Therefore it is necessary a personalized education since we talk of much higher and more complex requisites, requiring innovation, interdisciplinarity, networking. (p. 59)

Consequently, higher education institutions need to restructure themselves to support the need for personalized, ongoing lifelong learning. As Penprase (2018) noted, “The rapid pace of change in the 4IR will require rapid expansion of existing initiatives for updating skills after graduation and reconnecting in older workers in campus environments” (p. 223). Gleason (2018) reinforced this point, stating, “The 4IR requires HE institutions to depart from the current 3 or 4 year undergraduate model to prepare for lifelong learners,” but lamented, “thus far the changes in HE have been slow and inadequate, though some are trying to adapt” (p. 6). Penprase (2018) stated more strongly the future of education relies on these shifts, noting:

Higher education needs to recognize the necessity of adapting and scaling up these new 4IR forms of education rapidly to assure the sustainability of our environment and

economy, as well as to sustain the relevance of higher education as a responsive and vital component of society. (p. 225)

The 4IR, therefore, necessitates changes in higher education for new models of instruction that build students' capacity to learn, rather than only teaching technical skills (Penprase, 2018). Universities in China have long focused on technical skills, but now are beginning to recognize the importance of "soft" skills and encouraging innovation (Lewis, 2018). Yang and Cheng (2018) concluded, "Education and training in the 4IR-shaped future should aim to develop in learners high-level, high value-adding skills" (p. 40).

The rapid pace of change in technologies also requires instructors maintain the currency of their knowledge. As Penprase (2018) stated, "Within future universities and colleges, both students and faculty will never be done with their educations, but instead must engage constantly with their colleagues and outside experts to frequently renew and update their skills" (p. 224). Khan et al. (2004) found for students in technical disciplines, instructor currency was one of the most important determinants of student success. The authors further noted, with the rise of online education, "The faculty technical currency thus becomes a pivotal factor for the design, implementation and delivery of effective online programs that can promote student learning/success" (Khan et al., 2004, p. 9.605.5).

The Importance of Entrepreneurial Education in the Fourth Industrial Revolution

There is a growing emphasis in the literature on the general need for entrepreneurship in meeting the challenges and opportunities of the 4IR, as well as the specific need for entrepreneurial education (Corbin & Thomas, 2019; Isenberg, 2011; Spigel & Harrison, 2018). The World Economic Forum (as cited by Wilson et al., 2009) emphasized the importance of entrepreneurship in relation to economic growth, stating, "Entrepreneurship education is critical

for developing entrepreneurial skills, attitudes and behaviours that are the basis for economic growth” (p. 9). Badal (2010) emphasized increased entrepreneurial activity will result in increased economic growth. Langemo (2019) argued entrepreneurial education is required to equip students with the ability to acquire skills for jobs that do not yet exist. Langemo (2019) further emphasized placing entrepreneurship at the heart of education to equip students with the soft skills needed to be successful in the future, including “leadership, strategic and critical thinking, collaboration, problem-solving, and creativity” (pp. 6–7). Gold and Kerly (2019) concurred, stating, “The changing landscape of our economy demands that students involve themselves in entrepreneurial education” (p. 28). Glasper (2019) summarized the importance of entrepreneurial education, stating, “If small businesses are the lifeblood of America, then entrepreneurial community colleges are the lifeblood of the communities they serve and the states in which they reside” (pp. 145–146).

Langemo (2019) noted a fundamental shift in education must take place, writing:

Preparing students for traditional careers and pathways is a disservice not only to their future but also to the future of society, given the ambiguous job types of the future and the evolution of careers and work as we know it. (p. 7)

Yet, the current structure and culture of higher education is not conducive to change (Jacobs & Worth, 2019; Schleicher, 2021). The tension between academic track and noncredit or career technical education is not supportive of students’ need to prepare for a changing world (O’Banion, 2015). Colleges have often responded by further solidifying the wall between the two worlds, even creating “shadow colleges” that operate independently from the traditional structure (Jacobs & Worth, 2019). Yet, the challenges presented by the increase of technology in the 4IR

will demand a greater need for science, technology, engineering and math (STEM) education (Jacobs & Worth, 2019).

Additionally, there is a growing recognition that education must change to retain a relevant role in a rapidly changing world (Penprase, 2018; Schleicher, 2021). Many practitioners recognize the need for change in higher education—both in governance and in delivery methods (Miles & Brown, 2021; Schleicher, 2021). Miles and Brown (2021) wrote, “Committing to institutional sustainability and preparing students to succeed in an ever-evolving world invite exploration of new models for current and future practice” (para. 3). Schleicher (2021) predicted with the changes that have already taken place in distance learning, the traditional place-based method of obtaining skills may already be obsolete.

Miles and Brown (2021) argued to be responsive and adaptive, community colleges should adopt an “agile organization” management model, in which rigid traditional bureaucratic structures are replaced with cross-functional teams with decision-making authority. Salo (2017) noted bureaucratic organizations have a difficult time adjusting to the level of responsiveness needed. Greineder et al. (2020) explained agile organizations need a strong ability to “sense and respond” (p. 4) to changes in the operating environment. Because of this, many colleges move these functions outside of the regular college operations, using contract education and other mechanisms (Jacobs & Worth, 2019). Yet, as many of the new required skills lean heavily on STEM skills, colleges will need to learn to integrate agility into the traditional academic programs (Jacobs & Worth, 2019).

One key feature of the 4IR is the focus of education will need to be on those skills, which are harder to automate (Griffin & Cormier, 2020). The rapid pace of change is creating a significant skills gap between what the workforce is trained for, and what employers need

(Lowendahl et al., 2020). Griffin and Cormier (2020) indicated education will need to work more closely with industry to identify emerging skills. To address the need, some employers have created internal training units (Lowendahl et al., 2020), while others rely more on outsourcing to community colleges and other providers (Adams et al., 2013).

In the knowledge economy, access to new knowledge and effective knowledge sharing is critical to the overall of an entrepreneurial ecosystem (Spigel & Harrison, 2018). This interdependency means firms by themselves cannot develop knowledge by themselves, they need the other actors in the ecosystem (Spigel & Harrison, 2018). The role of higher education is critical; as Ratten (2020) explained, “Against the backdrop of a knowledge economy, entrepreneurial universities enable new and creative thinking to emerge” (p. 448).

To address rapidly emerging needs, colleges need to adopt structures that can rapidly adapt and deploy new trainings (Adams et al., 2013). Vital to becoming more adaptable is the development of relationships between the educational institution and industry partners (Osterman & Weaver, 2016). As stated earlier, tension between academic programs and workforce development/career technical education often leave most of these efforts with contract education, which is outside of the general education structure (Tarence, 2002). Most often, these courses are taught by adjunct and other contract personnel, rather than full-time faculty (Alssid et al., 2002; Bailey & Averianova, 1999).

Innovations in Workforce Development

The 4IR, the Great Recession, and the COVID-19 global pandemic have all contributed to the need for innovative and responsive workforce development (Wang & Horton, 2020). Wang and Horton (2020) noted the particularly acute effects of the COVID-19 global pandemic, remarking, “Within months, COVID-19 upended traditional work and education systems,

accelerated the rapid adoption of digital systems and automation use across sectors, and displaced a largely low-wage and low-skill workforce” (p. 1). Kane (2021) expanded on the dilemma resulting from the COVID-19 global pandemic in a 2021 Brookings Institute report, writing, “A diverse range of unemployed and low-wage workers in hospitality, retail, and other industries nationally need to transition to better jobs, which will require many branching pathways” (para. 5). Additionally, in looking to the future, Kane noted many young people have difficulty accessing networks and connections that can guide them on a path to gainful employment. The difficulty in accessing networks creates a situation in which “young people have high levels of unemployment and tend to cycle in and out of jobs even as employers report difficulty finding workers with the necessary skills and experience” (Kane, 2021, para. 5).

Numerous initiatives have been launched in recent years to pilot innovative approaches to address the emerging needs of a rapidly changing labor landscape. These include approaches such as competency based education (CBE), work-based learning, industry specific certifications, micro credentialing, business incubators, job centers, and defined career pathways (Wang & Horton, 2020). Some projects are funded as pilot programs through special grants, such as the Human Capital Investment Fund funded by the Capital One Foundation (Jain et al., 2017), or the Department of Labor’s Workforce Innovation and Opportunity Act (WIOA) funds.

Many of these efforts attempt to meet numerous goals. An example are the Jobs Innovation and Accelerator Challenge (JIAC) initiative challenge grants funded through the Department of Labor and four other federal agencies (Angus et al., 2017). The goal of the grants program was multifold: provide skilled workers to specific industry clusters, address general skills gaps, accelerate the formation and growth of new businesses, support the deployment of new research innovations, increase workforce diversity, target training to traditionally

underserved populations, and reduce the reliance on foreign workers through the H-1B visa program (Angus et al., 2017).

Most of these initiatives have a regional focus, and place the local community college at the center of the efforts (Wang & Horton, 2020). Wang and Horton (2020) explained community colleges are “uniquely positioned to be a critical asset in higher education, employer engagement, and local economic development within its existing regional ecosystems” (p. 7). Although community colleges are important to these efforts, Ross et al. (2020) noted the path is not always clear for those who need assistance most, noting, “For those whose families and schools can’t provide adequate guidance, it is not easy to identify college and training options that are affordable and a good fit” (p. 5). Ross et al. (2020) further observed the connection between industry and education is not always as strong as it needs to be, stating, “With a few exceptions, neither secondary nor postsecondary systems have a clear interface with the world of work” (p. 5). One innovative approach to address identified shortcomings has been work-based learning programs aimed at high school students to give them real-world experience while connecting them into a network of people who can help guide them into a strong career path (Ross et al., 2020).

There are several common themes from the literature around many of the more innovative programs: they are best actuated through a collaborative effort of an organized consortium (Meléndez et al., 2015); they are regionally or locally based (Angus et al., 2017; Wang & Horton, 2020); they leverage multiple funding sources and other resources (Wang & Horton, 2020); they have an explicit goal to close equity gaps (Angus et al., 2017; Wang & Horton, 2020); and they are inherently flexible to be responsive to needs for emerging skills (Penprase, 2018).

Although the importance of an effective consortium in implementing innovative programs is almost universally accepted, Meléndez et al. (2015) found significant barriers to creating and sustaining these organizations. Their research suggested issues that presented the greatest barriers fell into the areas of governance, ongoing funding for consortia, and flexibility for local entities to direct federal dollars to address their unique needs. Based on studies of successful initiatives, the study's authors recommended there be an "anchor" or lead institution within each consortium with the authority to direct policy and establish accountability. Meléndez et al. also noted although the role of anchor institution is often done through state agencies, community colleges can also serve in this vital coordination role in the region (Wang & Horton, 2020). Meléndez et al. indicated this regional approach has been particularly effective in providing opportunities for disadvantaged workers.

Stegeman (2021), drawing on Kanter's (1994) collaborative advantages theory, examined successful relationships between economic development organizations (EDOs) and community colleges and found many common elements that may contribute to the success of the efforts of both organizations. These elements included effective communications, regular interaction, integration, and trust. Key elements for some of the organizations were a formalization of the relationship between the EDO and the community college through either regulatory requirements or some other agreement, as well as some funding mechanism to support the activities. These elements allowed these relationships to persist in spite of changes in personnel over the year. Also noted was the importance of executive leadership support and decision-making authority. These elements appear to have overcome the barriers noted by Meléndez et al. (2015).

Equitable Economic Development

As has been discussed, massive and ongoing labor market disruptions are expected as a result of the 4IR (Gleason, 2018). Xu et al. (2018) expressed concern, noting, “The revolution could yield greater inequality, particularly in its potential to disrupt labor markets” (p. 92). Many communities seek to attract companies to infuse new resources and ensure future economic prosperity (Florida, 2014). Although economic development is often viewed as a tool to address equity gaps (Y. S. Lee, 2018), some scholars note there can be negative consequences. Spigel and Harrison (2018) warned certain economic development strategies, such as entrepreneurial ecosystems, “decreases the quality of life of those unconnected with the start-up economy by sparking gentrification, increasing the cost of living, or driving out other types of employment” (p. 164). Although Florida’s (2014) creative class theory emphasizes the importance of attracting creative and talented people to create the conditions for economic growth, Florida admitted, “Metros that ranked highest on my Creativity Index also tended to have the highest levels of inequality” (p. 202). Florida followed with several examples, including Silicon Valley and Washington D.C., communities in which great prosperity came at a great cost to equity.

To counter this, Spigel and Harrison (2018) emphasized the importance of increasing prosperity for the entire community not just specific segments; and that equity must be at the forefront, noting, “Not everyone benefits from an ecosystem equally: entrepreneurs can be excluded from many local networks because of their gender, race, age, or level of education” (p. 165).

Many researchers see workforce development as an important strategy for equitable development (Cantor, 1991; Carnevale & Desrochers, 2001; Griffin & Cormier, 2020; Lowe et al., 2011). This is especially important in the entrepreneurial ecosystem view that places strong

emphasis on education in knowledge development (Ratten, 2020). Garmise (2009) was critical of theories such as Florida's creative class theory that focus primarily on attracting and retaining talent from the outside, arguing this view only encompasses the existing talent pool, and ignores how talent is developed. Garmise (2009) noted theory and research that support "a more effective strategy is to expand the overall talent pool through a strategic attempt to strengthen the workforce system and align it with regional economic development" (p. 211). Having a strong system of workforce development tied to local economic development provides a means to develop local talent that counters concerns of both "brain drain" and inequitable development (Garmise, 2009).

Another equity-focused economic development strategy is Kretzmann and McKnight's (1996) assets-based community development (ABCD). They noted, "Hundreds of thousands of industrial jobs have either disappeared or moved away from the central city and its neighborhoods" (Kretzmann & McKnight, 1996, p. 23). They further noted revitalization efforts often leave many behind:

Either these new jobs are highly professionalized, and require elaborate education and credentials for entry, or they are routine, low-paying service jobs without much of a future. In effect, these shifts in the economy, and particularly the disappearance of decent employment possibilities from low-income neighborhoods, have removed the bottom rung from the fabled American "ladder of opportunity." (Kretzmann & McKnight, 1996, p. 23)

The core concept behind this theory is that there are two approaches to revitalization: focus on a community's deficiencies or build on existing assets in the community. Kretzmann and McKnight (1996) argued the first, and very common approach has created many of the

overwhelming problems faced by cities today, creating “client neighborhoods” (p. 23), in which citizens become dependent on outside agencies to meet their needs. This changes the outlook of the community as “they begin to see themselves as people with special needs that can only be met by outsiders” (Kretzmann & McKnight, 1996, p. 23). Kretzmann and McKnight (1996) explained what they saw as a natural descent, writing, “they think of themselves and their neighbors as fundamentally deficient, victims incapable of taking charge of their lives and of their community’s future” (p. 24).

According to the assets-based community development theory, the answer is to inventory all of the assets in the community and connect them together to leverage them to drive growth internally (Kretzmann & McKnight, 1996). This includes community based institutions, physical infrastructure, relationships, and the existing base of knowledge and talent (Mathie & Cunningham, 2002). Fundamental in this theory are the importance of social networks in the community (Mathie & Cunningham, 2002). Inkpen and Tsang (2005) pointed out in a rapidly changing world, stating, “Networks provide firms with access to knowledge, resources, markets, or technologies” (p. 146). Mathie and Cunningham (2002) noted bringing people together in a community to develop a vision and plan is an important step in connecting internal resources. The relationships in the community networks become the backbone of the strategy as Inkpen and Tsang (2005) observed, “Trust plays a key role in the willingness of network actors to share knowledge” (p. 154).

There is a clear expectation some outside investment will most likely be required, but the goal is to use those to activate the existing assets (Friedmann, 2007). As Friedmann (2007) asserted, “The true wealth of a city is to be found in the progressive development of its assets base through a concerted and sustained effort, largely from within itself” (p. 995). From an

equity perspective, Mathie and Cunningham (2002) explained, “ABCD’s community-driven approach is in keeping with the principles and practice of participatory approaches development where active participation and empowerment (and the prevention of disempowerment) are the basis of practice” (p. 7).

Both approaches fit well in the theoretical frameworks used for this study. Workforce development addressed a key component of knowledge development and transfer under the entrepreneurial ecosystem framework, and ABCD aligned well with the community capitals theory, as well as the social network-based view of entrepreneurial ecosystems.

The Role of Community Colleges in Economic Development

Community colleges in the United States generally embrace a multifold mission of academic education, vocational skills training, remedial education, and community benefit (Frost, 2011). As open-access institutions, community colleges are often seen as an important means for people to move out of poverty and pursue a higher standard of living (Alssid et al., 2002). Brown and Miles (2021) stressed the importance of the role of community colleges in a rapidly changing world, stating community colleges “will train the next generation of skilled workers and prepare students for a complex, unpredictable world. Amid constant flux, a core principle guides our uniquely democratic purpose: community colleges are higher education’s accessible open door” (para. 10).

In spite of this, community colleges often do not offer pathways that lead directly to meaningful employment (Jenkins & Fink, 2021). Schott (2012) noted some researchers estimate a 30% gap between skills taught and skills needed by employers. Jenkins and Fink (2021) concurred, stating, “The misalignment between community college credentials and strong employment and further education outcomes is one important but largely overlooked reason that

community college enrollment declined steadily for a decade, even before the sharp drop that resulted from COVID” (para. 4). Wolff and Booth (2017) illustrated the point by referring to the 2015 Gallup-Purdue index that found only 50% of alumni “strongly agreed” their investment in the education they received from their institution was worth the cost. Jenkins and Fink (2021) also argued if CTE students do not earn more upon completion of a program, or if transfer students have to take additional credits to meet transfer requirements, then the value proposition diminishes for the student, and community college pathways are not the right path for them. Wolff and Booth (2017) further noted, “Too often institutions or programs believe that the needed skills are taught, but employers report that graduates cannot apply or integrate these skills and knowledge areas into the actual workplace” (p. 52). The authors (2017) illustrated this point through another finding from the 2015 Gallup-Purdue index:

Where 98 percent of Chief Academic Officers of higher educational institutions rated their institutions as very or somewhat effective at preparing students for the world of work, but only 11 percent of business leaders strongly agreed that graduating students have the skills and competencies they need. (p. 52)

Jenkins and Fink (2021) concluded:

While colleges should continue to strengthen student outreach, this will not be sufficient to reverse the enrollment declines of the past year, let alone the past decade. Community colleges will also need to look at the curriculum and pedagogy of their programs and ensure that they are aligned with the requirements for good jobs in their areas and for transfer in popular majors at nearby universities. (para. 4)

Economic Development Activities

Because community colleges are embedded in their communities and hold workforce development as a core purpose, involvement in economic development activities is clearly aligned with their mission (Velluzzi, 2010). Jacobs and Worth (2019) recognized some believe that involvement in economic development activities move community colleges away from their core mission of student success, they argue these activities develop the entrepreneurial capacity of the community and are a key driver of community success. Additionally, studies have shown the mere presence of a community college can increase employment levels in the surrounding community both through providing job training for local firms as well as the direct contribution of the wages, goods, and services paid through the college (Cantor, 1991; Fox & Pennington, 2009).

The Growing Role of Community Colleges in Economic Development

Community colleges engage in numerous economic development strategies and activities. Kingry and Cole (1985) identified 23 economic development activities in which community colleges engaged. Boone's (1994) later review of national practices resulted in a list of 18 commonly used strategies. Boone identified the 18 strategies:

1. Acts as a catalyst/leader in organizing a master plan (community-based programming) for economic development problems in their service area.
2. Maintains an Advanced Technology Center geared to demonstrate new technological equipment to businesses in the service area.
3. Maintains a Small Business Center that provides assistance to businesses throughout the service area.

4. Maintains an Economic Development Office to coordinate all of the 2-year institution's economic development services.
5. Employs an Economic Development Recruiter(s) to provide economic development assistance to local businesses.
6. Maintains a Business Incubator Program that permits entrepreneurs to start new businesses without the overhead costs.
7. Forms partnerships with local business and government agencies in the service area.
8. Uses the partnerships to actively recruit new businesses to the service area.
9. Provides supplemental educational training for employees in new and expanding industries.
10. Uses Advisory Committees to maintain the linkage between businesses and the community college
11. Provides cooperative education opportunities for students in conjunction with business and industry.
12. Provides faculty with the opportunity to upgrade their occupational skills through a back-to-industry program.
13. Provides college placement services to graduates seeking employment in the work force.
14. Participates in the economic development programs connected with the local Chambers of Commerce.
15. Participates in the economic development programs connected with the County Commissioners.
16. Provides job training programs to existing businesses and industries.

17. Provides retraining programs to displaced workers.
18. Offers business related seminars and workshops upon request to industries and government organizations in the service area. (pp. 68–70)

The list reveals community colleges have been active in numerous strategies in support of economic growth for some time. It is clear the role of community colleges in economic development activities is growing; still, there is significant disagreement as to whether or not colleges should take an active role (Bailey & Averianova, 1999; Dougherty & Bakia, 1999; Jacobs & Dougherty, 2006). Critics have expressed concern that being market driven in providing services will undercut the mission of community colleges by diverting resources from the academic transfer function and the student supports needed by students from underrepresented groups to lift them out of poverty (Jacobs & Dougherty, 2006). On the other side, many prominent voices in the community college movement, including the American Association of Community Colleges, have been strong proponents (Alssid et al., 2002; Jacobs & Dougherty, 2006; Jacobs & Worth, 2019; O'Banion, 2015).

Economic development is well established as a primary goal of many colleges and the policymakers who regulate them (Cantor, 1991). In 1995, the West Virginia legislature passed Senate Bill 547 mandating community colleges to engage in local economic development activities (Asbury, 2001). With so many colleges pouring resources into economic development activities, Dougherty and Bakia (1999) expressed the need for more research on the impacts of the expanding role of community colleges.

Alignment of Community College Activities Within a Community

An important aspect of the role of community colleges in economic development is how they work in conjunction with other entities, including governmental agencies, private firms,

economic development agencies, and chambers of commerce (Cantor, 1991). Yet, little has been documented as to how these relationships work (Cantor, 1991; Stam & Spigel, 2016). Cantor (1991) noted efforts are often parallel, but can create “mismatches” that may reduce the effectiveness of the efforts of the various actors.

Although Florida (2014) and Romer (1994) both put the importance of attracting creative knowledge workers at the forefront in their theories, Garmise (2009) argued strategies to attract and retain knowledge workers are insufficient to sustain economic growth. Garmise (2009) asserted, “A more effective strategy is to expand the overall talent pool through a strategic attempt to strengthen the workforce system and align it with regional economic development” (p. 211). Both Florida and Romer contended talent is mobile and it flows with the people; yet, Garmise (2009) pointed out these models do not contemplate how talent is developed. Garmise (2009) theorized paying attention to the formation of human capital is critical, stating, “A region needs a system that can educate and train many people across diverse skill sets” (p. 213). Talent development includes not just educational institutions, but local entrepreneurs who can nurture new workers and develop their creativity (Garmise, 2009).

Garmise (2009) also noted the problems caused by misalignment of knowledge development resources, observing, “Most regions have de facto workforce systems comprising a baffling collection of fragmented institutions and competing rules and regulation all engaged in recognizing, developing and transferring skills and often disconnected from regional economic demand” (p. 214). Garmise concluded strong relationships among stakeholders and an entrepreneurial approach are key elements. This view aligns well with Emery and Flora’s (2006) concept that investment in community capitals contributes to the local economy “spiraling up;” whereas neglecting investment results in a steepening community decline, or “spiraling down.”

There have been a limited number of studies that examine the role of the community college in relation to other external stakeholders. Kingry and Cole (1985) conducted a quantitative study in Oregon that identified a difference of perceptions between community colleges and local firms as to the role of the community colleges clearly existed. They were able to determine the community college administrators had a much higher view of their programs than the firms did. The authors expressed additional research should be conducted to include other groups, such as governmental agencies and nonprofit organizations. Notedly, the authors identified that most of the activities of the colleges related to economic development were accomplished with adjunct faculty rather than full-time faculty, and suggested colleges should “find additional means to utilize them effectively” (Kingry and Cole, 1985, p. 15).

Another significant study was conducted by Boone (1994) in his doctoral dissertation. Boone sought to identify factors associated with the perceived satisfaction of community college administrators and local stakeholders in the North Carolina state system. Boone hoped the study would provide insight on the effectiveness of community colleges’ activities in satisfying the needs of various stakeholders. Boone’s research found colleges in North Carolina were only using five of the 18 strategies commonly used at a national level. Boone also found many external stakeholders were unaware of the services offered by the colleges, pointing to a lack of communication from the colleges. This supports the concern that misalignment among stakeholders may reduce the effectiveness of the colleges’ efforts in the ecosystem in which they operate.

Boone’s (1994) recommendations for further study included more in-depth examinations at each of the 58 colleges in the North Carolina system, and to replicate his study to other states. Two later studies did just that. Chen (1995) replicated Boone’s study in 1995, examining the

community colleges in Maryland, South Carolina, and Virginia. C. S. Lee (2010) replicated the study in 2010, focusing on Maryland community colleges. The findings of both studies were consistent with Boone's in that stakeholders were most satisfied with services provided by colleges when there were established relationships with their local college. Also reiterated was the lack of communication from colleges as to the full range of services that could be offered.

Chen's (1995) recommendations for further research suggested widening the pool of external stakeholders to include more groups, including state lawmakers. C. S. Lee (2010) recommended future studies include mixed methods to determine reasons for differences in perceptions of various stakeholders. As C. S. Lee noted, quantitative data are only able to determine there is a difference and cannot provide insight as to why those differences exist. C. S. Lee also suggested the study should be replicated to determine if the findings would remain consistent over time.

Singleton's (2018) study on the impact of economic development activities at a rural community college focused on how external stakeholders understood the economic development activities of a rural community college in eastern North Carolina. Singleton noted she was unable to identify any other studies of the holistic role of rural community college involvement in economic development. Singleton also remarked the studies identified in her review were quantitative, leaving much to explore in this area.

Singleton's (2018) research found stakeholders' expectations of the quality and quantity of economic activities was very high, and that the college was an integral partner in the region. Singleton also found stakeholders' most positive perceptions were around activities in which the stakeholders had significant personal relationships with college employees. Singleton called for additional qualitative research to build on the understanding of how colleges can interact more

effectively with community stakeholders in economic development efforts. Singleton recommended this study should be replicated in rural, urban, and suburban settings to gain a broader understanding of the role of community colleges in economic development. Additionally, Singleton noted the need for research to identify the effectiveness of specific individual activities.

Identified Gaps

Limited research has been conducted focuses on the role of the community college in local economic development efforts. The studies of Kingry and Cole (1985), Boone (1994), Chen (1995), and C. S. Lee (2010) examined the perceptions of a narrow group of external stakeholders. Researchers have also recommended future studies should include more stakeholders, both internal and external (Bailey & Averianova, 1999; Kingry & Cole, 1985). Additionally, most studies identified through the literature review were quantitative and were able to establish differences in perceptions among stakeholders but offered little insight as to how colleges function in those roles.

Furthermore, an examination of the literature on economic development theories found many researchers believe more research needs to be conducted on how various stakeholders interact in a community to access and develop resources that contribute to growth (Dougherty & Bakia, 1999; Harper-Anderson, 2008; Ratten, 2020; Spigel, 2017; Velluzzi, 2010). Therefore, gaps in research on the role of community colleges in economic development exist, particularly in understanding how they interact with external stakeholders to generate local economic growth.

Chapter Summary

This chapter provided a review of relevant literature on the role of community colleges in economic development efforts. A framework was presented that was built on the entrepreneurial

ecosystems, community capitals, and creative class theories as a lens to approach the proposed study. Additionally, literature that explored the changing role of education in an increasingly technologically driven economy was reviewed. A review of the impacts of economic growth on socioeconomic inequities was also presented.

Chapter 3 - Methodology

This chapter presents the methodology employed in the study. Included in this chapter is a description of the background of the study, theoretical frameworks used, research design, study setting, participants, instrumentation, data collection and sources, analytical methods, study quality, ethical considerations, and study limitations.

Background

The purpose of this study was to explore the perceptions of key internal and external stakeholders of the role of the community college in economic development activities, and to identify areas of agreement and gaps in the alignment of the perceptions of the various internal and external stakeholders. Five research questions guided the study:

Research Question 1: What do external stakeholders currently perceive the role of the local community college to be in local economic development efforts?

Research Question 2: What expectations do external stakeholders have for the role of their local community college in local economic development efforts?

Research Question 3: What do internal stakeholders perceive the current role of their institution to be in local economic development efforts?

Research Question 4: What expectations do internal stakeholders have for the role of their institution in local economic development efforts?

Research Question 5: What economic development goals are common and dissimilar among stakeholders?

Theoretical Frameworks

Three theoretical frameworks were used to direct the focus of this study: entrepreneurial ecosystems (Isenberg, 2014), community capitals framework (Emery & Flora, 2006), and

creative class theory (Florida, 2014). These frameworks provided lenses that shaped and guided the research study. Each theoretical framework provided a different perspective that was used to develop a comprehensive picture of who key stakeholders are, and what their relative roles in economic development activities are. Entrepreneurial ecosystems (Isenberg, 2014) identified the groups of stakeholders, such as governmental agencies, private firms, local associations, and educational partners. Community capitals (Emery & Flora, 2006) identified resources needed for economic development in a region. Creative class (Florida, 2019) identified features in a community that attract and retain talented knowledge workers. See Appendix A for a visual depiction of the alignment among the theories.

Research Methodology

Through the study, the researcher sought to better understand the role of the community college in relation to other stakeholders in the community; therefore, a qualitative method was selected to “understand the social life as it unfolds in its natural environment” (Lochmiller & Lester, 2017, p. 93). Furthermore, as qualitative methods are inherently exploratory, methods may need to be adjusted after the data collection begins to ensure complete and relevant data are collected (Lochmiller & Lester, 2017). Additionally, the study was informed by local economic development plans and other documentation for descriptive and contextual purposes.

As described in the literature review, there have been several quantitative studies on the role of community colleges in economic development activities, but few qualitative studies that look into how their role is perceived. Specifically, the study used a single-case study design focused on the role of a community college in economic development activities in its service boundaries. Lochmiller and Lester (2017) advised the use of case study methodology when the

researcher is “interested in understanding the individual parts, the relationships among them, and how they function as a whole” (pp. 102–104).

Study Setting

The subject of the study was the College of the Desert located in Palm Desert, California, and its surrounding service area. The site was chosen due to its relative geographic isolation and minimal overlap in service areas with other community colleges. The service area of the college primarily encompasses the greater Coachella Valley, which includes nine incorporated cities, as well as several unincorporated communities (Coachella Valley Economic Partnership, 2019). Although the population of the Coachella Valley is quite diverse, the economic base is not. The two largest sectors of employment consist of leisure and hospitality and agriculture, which are both low paying and highly seasonal (Coachella Valley Economic Partnership, 2019). Based on comparisons with other regions, diversification of the local economy is key to long-term economic stability (Coachella Valley Economic Partnership, 2019).

The geography and economic status of the Coachella Valley creates a clearly defined region with clear differentiating characteristics that make it ideal for a bounded case study. Additionally, at over 400,000 residents, the Coachella Valley has the community capitals and stakeholder groups identified in the theoretical frameworks needed to complete a comprehensive study. The Coachella Valley is large enough to offer an adequate supply of potential study participants while protecting their identity; yet, small enough to have a defined social network for gaining access to potential participants.

Study Participants

The data for the study were obtained primarily from interviews with key internal and external stakeholders. Purposeful sample selection was used to select potential participants (Lochmiller & Lester, 2017). Both external and internal stakeholders to the college were identified and recruited. Using the entrepreneurial ecosystem framework, external stakeholders from a broad spectrum of perspectives were recruited to be interviewed. These included representatives from local government and umbrella organizations, such as chambers of commerce and economic development agencies, local business, education partners, local banking, community nonprofits, and state educational support organizations.

Internal stakeholders represented participants with roles inside the college organization. This included full-time instructional and noninstructional faculty and adjunct faculty, instructional deans, program managers, directors, executive management, and an elected trustee. Participants represented both academic disciplines as well as career technical education (CTE) programs and contract education programs. Specific positions are not identified to protect the confidentiality of the participants.

The sample size was 20 participants. The sample size needs to be large enough to obtain rich data, while not being too small to reasonably reach conclusions (Lochmiller & Lester, 2017). A large sample size for interviews is not always needed, as purposeful sampling is aimed toward individuals whose experiences and roles are “specifically related to the research focus” (Lochmiller & Lester, 2017, p. 140). Saldaña (2016) noted sample size has no hard and fast rules, but when the researcher notes little new information is gleaned, saturation is likely reached and enough data have been gathered.

The researcher found the diversity of opinions from so many viewpoints brought very rich results and numerous issues. Even with the diversity of viewpoints, common themes emerged consistently throughout the interview process so a level of saturation in the sample was realized, indicating the sample was sufficient for the purposes of the study.

Instrumentation and Data Collection

Lochmiller and Lester (2017) noted, “Qualitative research presumes that the researcher is the research instrument” (p. 93). The researcher used different questionnaires for internal and external stakeholders. The questions were designed to allow exploration of the topic while answering the research questions. Studies in the literature review were used to guide the development of questions.

The researcher used the questionnaires to conduct personal interviews as the primary data collection method. As Yin (2018) wrote, “Interviews are an essential source of case study evidence because most case studies are about human affairs or actions” (p. 164). The interview questions were semistructured, open-ended questions to provide in-depth insights from participants, and allow flexibility in using relevant follow-up questions (Lochmiller & Lester, 2017). The focus of the questions was guided by the theoretical frameworks presented in Chapter 2. The questions were intended to elicit responses to reveal perceptions of each stakeholder as to their role in local economic development efforts, the activities and strategies they focus on, and their perceptions of the other stakeholders in the region—particularly the local community college.

Interview Protocol

An initial list of potential participants was developed. Potential participants received a letter and a copy of the informed consent form (see Appendices B and C) so the participants

could determine they were able and willing to engage in the interview process. Most participants who were recruited responded positively. Some potential candidates did not respond to requests, but none of the potential candidates responded negatively to the request.

Efforts were made to make the participants comfortable throughout the process. Because of restrictions from the COVID-19 global pandemic the interviews were held in a teleconference/video call format using the Zoom platform. Interviews were scheduled to last approximately 1 hour. Most interviews lasted a duration of 40–60 minutes. The researcher requested permission to record the interview prior to the start of the interview. All participants agreed to being recorded. The intention to record the interview was included in the introduction letter, the informed consent form, and verbally confirmed at the interview. Recording did not take place without the clear, expressed permission of the interviewee. The researcher chose not to take notes during the interview to ensure full attention was given to the conversation.

The interviews consisted of a set of open-ended questions (see Appendices D and E), which provided the possibility of follow-up questions for clarification and additional information. Because of the prominent roles of many of the subjects, care was taken to keep the tone open and friendly, without being leading and minimizing bias in the process (Lochmiller & Lester, 2017; Yin, 2018). The questions were structured in a way to be responsive to the research questions. The questions focused on each participant's role in their organization and the role of their organization in economic development, relationships with other stakeholders, their perception of the role of College of the Desert in local economic development efforts, and their expectations of what the role of the college should be. Additionally, questions were asked to determine each participant's perception of the general environment of economic development in the Coachella Valley.

The recordings and interview notes, along with the informed consent forms, were stored in a locked file cabinet for the required duration, and will be destroyed after 5 years. All electronic data or information that has personally identifiable data were stored on external storage devices, and were not stored on any device connected to any internal or external networks.

At the conclusion of each interview, participants were thanked and offered an opportunity to receive a copy of the study results upon its completion. The interviews resulted in approximately 20 hours of audio recordings.

Data Analysis

After the interviews were completed, they were transcribed using the Otter.ai platform. The software provided highly accurate transcripts. Errors or apparent errors in the transcript were easily located through a syncing capability in the software, which allowed for easy manual corrections. Transcripts were exported to the Microsoft Word format and printed for manual coding. The researcher offered participants an opportunity to review the transcripts.

The researcher organized coding around several principles and methodologies. The purpose of the initial review was to organize the data and create an initial coding scheme (Lochmiller & Lester, 2017). Yin (2018) suggested an appropriate method to begin the analysis process is to “play” (p. 215) with their data prior to doing in-depth coding to look for broader patterns or concepts. Saldaña (2016) noted coding is an iterative process that is generally done through two or more cycles. Yin (2018) also argued it is important to have a strategic approach to analyzing the data to successfully interpret it. Yin also noted computer-assisted qualitative data analysis software (CAQDAS) can be helpful, as having an initial set of codes is critical to

gain benefit. Yin also advised computer-assisted software cannot complete the analysis, as this is the interpretive work of the researcher.

As emphasized by Saldaña (2016), there are numerous approaches to coding, and in some instances, coding may even hinder a study by becoming overly interpretive. The study's purpose was exploratory, while also seeking to build on other researchers, including Boone (1994) and Singleton (2018). Saldaña (2016) noted multiple approaches to first cycle coding are often employed. Initial plans were to use "initial coding," also known as "open coding" to ensure the researcher remained open to all possibilities the data presents (Saldaña, 2016, p. 115). At the same time, first-cycle coding also used structural or descriptive coding, as described by Saldaña, to assist in organizing and indexing the data around the theoretical frameworks.

Yin (2018) offered further insight in the coding process in describing four general strategies to approach qualitative data analysis that are helpful in aligning the analysis to the theoretical frameworks: relying on theoretical propositions, working the data from the "ground up," developing a case description, or examining plausible rival explanations (pp. 216–221). Based on Yin's descriptions, an appropriate approach for coding was to rely on the theoretical propositions to guide the data analysis because the study approach was developed with theoretical frameworks. As Yin stated, "The propositions would have shaped your data collection plan and therefore would have yielded analytic priorities" (p. 216).

The researcher's initial review of the transcripts was to identify themes that surfaced on a standalone basis, apart from the frameworks or themes used to form the study. This allowed the researcher to take a truly exploratory approach. The data were then reviewed and coded based on terms and initial themes as associated with the interview questions and their intent.

The transcripts were then reviewed again to identify how common or prevalent the themes were among stakeholders. The researcher drew a mind map of common terms, and then noted the frequency of reference based on the stakeholders' perspectives (i.e., external or internal). From there, themes and keywords were evaluated as to whether they were common among all stakeholders, or unique to each category of stakeholder. In addition, the researcher took note of items brought up by individual participants, but were not shared commonly among the groups. The researcher also took note of expected themes that did not appear in participant comments; for example, no participant made a reference to climate change, despite this issue being so prominent in news stories, nor with participants being directly asked about effects of global or national issues.

The transcripts were finally reviewed for specific participant quotes to provide rich supporting content in describing the various findings. Transcripts were reviewed no less than four times each to ensure consistent utilization and analysis of the content.

Additional Data Sources

Supporting secondary data sources were gathered to provide context and descriptive information about the community and stakeholder constituencies. Information was gathered from documents, websites, promotional materials, and other relevant documents to identify economic development strategies and activities being used by stakeholders.

Study Quality

Qualitative validity, or trustworthiness, ensures the study is done in a comprehensive and verifiable manner (Lochmiller & Lester, 2017). The researcher used Tracy's (2010) eight "big tent" criteria for quality in qualitative research:

1. Worthy topic. The researcher chose the topic of study because of the need for continual training and retraining resulting from the increasing rate of technology change, making the study timely and relevant as communities seek to ensure long-term economic stability.
2. Rich rigor. The study was informed by the three theoretical frameworks identified earlier in this chapter to ensure a thorough approach to the study (see Appendix A). Sufficient interviews were held to ensure rich and insightful data were collected (Tracy, 2010).
3. Sincerity. The researcher sought to recognize self-reflexivity issues and be open and honest in the research process. The researcher's position in executive management with the study subject institution makes him passionate about the topic as it is a core component of the mission of the institution. As this creates opportunities for both insight and biases, challenges that arise in the data collection and analysis are documented as to potential effect.
4. Credibility. The study used strategies to ensure that the conclusions from the analysis of the data collected were sound and relevant. For example, triangulation was used to ensure that conclusions are sound by common themes arising from multiple sources. The study also included interviews with stakeholders with differing roles, which provided multiple perspectives.
5. Resonance. The study aimed to provide insights in how communities can better align their resources and actors to improve the outcomes of economic development activities. This goal is relevant to virtually every community interested in the long-

- term economic prosperity of their citizens, and particularly relevant in the increasing pace of change of technology.
6. Significant contribution. The study adds to the body of knowledge around the role of the community college in how resources are developed, accessed, and transferred in a way that contributes to economic growth. The study results can provide practitioners with tools to make them more effective in their roles and better use the resources available to them.
 7. Ethical. Tracy (2010) described ethical considerations around procedure, culture and situation, relational, and exiting ethics, which are further examined in the following chapter section. The researcher remained mindful of the ethical obligations in each of these areas to uphold the integrity of the study and the resulting findings.
 8. Meaningful coherence. Tracy (2010) noted that for studies to meet this element, they will, “(a) achieve their stated purpose; (b) accomplish what they espouse to be about; (c) use methods and representation practices that partner well with espoused theories and paradigms; and (d) attentively interconnect literature reviewed with research foci, methods, and findings” (p. 848). The study approach and methodology were chosen as methods best to fulfill the goals of the study. The researcher continually checked each step to ensure alignment and cohesion throughout the entire study.

By adherence to Tracy’s guidelines, the researcher sought to ensure the quality of the study was upheld and results were meaningful.

Ethical Considerations

Ethical issues can arise for any type of research, and at any phase of the research project (Creswell & Poth, 2018; Lochmiller & Lester, 2017). Creswell and Poth’s (2018) listing of

ethical issues serve as a framework to account that appropriate safeguards are taken. In addition, Tracy's (2010) ethical considerations around procedure, culture and situation, relational, and exiting ethics were included to ensure the researcher was mindful of ethical obligations in each phase of the study.

Procedural Ethics

The researcher obtained Institutional Review Board (IRB) approval prior to contacting potential participants or collecting data. Data were controlled in a manner to ensure security and confidentiality. Data were stored on devices that are kept in a locked cabinet and are not stored online or on devices connected to a network.

Participants were informed of the purpose of the study, and were notified their participation was confidential and they could choose not to participate and exit the interview process at any time. No undue pressure was placed on anyone to make them feel obligated to in any way to participate in the study. All participants gave verbal affirmation they were comfortable with the process.

This study did not examine personal attributes of the participants, such as age, gender, ethnicity, income levels, or educational attainment; therefore, the study does not contain many of the risks associated with personally identifiable information. Nonetheless, there are other confidentiality risks associated with the study in that, because of a limited sample size and the disclosure of the case subject, it may be possible to deduce who a statement or quote may be attributable to. Because of the competitive and political nature of some of the individual roles of the participants, identification of an individual with their statements could be harmful to their relationships and professional reputation. Therefore, all efforts have been made to ensure

participants' identities remain confidential. Quotes in the study are used carefully and in a manner that would make it difficult to attribute the quote to a specific individual.

Other procedural ethical considerations in the study included academic integrity in gathering, analyzing, and reporting data (Creswell & Poth, 2018). Interview questions were vetted with two subject matter experts to avoid leading questions or biases in the questions. Personal integrity and project study oversight were important safeguards to ensure data were presented clearly and fairly without filtering for unwanted results.

Situational Ethics

Tracy (2010) noted researchers need to be sensitive to unanticipated situations that emerge in the field so the integrity of the study remains intact. The researcher remained vigilant to avoid any ethical breach from circumstances that occurred during the study, such as the discovery of confidential or proprietary information. The researcher did not identify any such data in the process of data collection.

Relational Ethics

The researcher recognized his role in the community, and the importance of personal integrity in representing the institution. The researcher remained mindful of the participants' roles in the community, and has taken steps to protect their identity and reputation throughout the study.

The American Educational Research Association Code of Ethics (2011), recognized limitations to confidentiality. Therefore, discussion and disclosure of potential confidentiality limits with participants was important. The researcher reviewed the informed consent documentation with each participant to ensure they were comfortable participating.

Exiting Ethics

The researcher recognized the responsibility to the participants after the study was over. The results are presented clearly, and represent what the researcher believes to be realistic conclusions derived from the data. Upon acceptance, the study results will be made broadly available to both the participants, and to other researchers and colleagues.

Reflexivity Statement

Much of the researcher's professional experience over the last 25 years has been in governmental, financial, and performance management. The researcher has served as a federal performance auditor, internal auditor for a local governmental agency, and as a strategic planning facilitator. Additionally, the researcher has over 15 years in education administration experience. Much of the focus of his work has been finding ways to objectively measure outcomes of government services and improve those services.

The researcher's personal outlook is very optimistic with a core belief that agencies can do better, and as an obligation to their constituents, must do better. This outlook could cause the researcher to unknowingly steer conversations in the interviews in ways that could elicit specific responses, thus potentially skewing the results by his own biases. At the same time, the researcher's extensive professional background in creating descriptive analyses from interviews to evaluate programs and outcomes provides a unique perspective that may add strength to the findings and conclusions of the study.

Additionally, at the time of this study, the researcher had lived in the community for approximately 16 years. Because of his longstanding residence in a fairly small community, he personally knows many people in the community, including many of the study participants. His combined life experience and community involvement could cause him to unknowingly make

connections between participants in a manner that may cause him to reach conclusions or synthesize the data in way that might not be evident to others without this background. Yin (2016) noted reflexivity can create an unwanted influence on interview conversations. Yin also noted researcher awareness of the problem is also the best means to monitor and prevent undue influence on research subjects.

Study Limitations

There were several limitations to the study. Qualitative studies can be subjective by nature, but can provide valuable insights as to how or why certain phenomena occur (Lochmiller & Lester, 2017). Because the case study focused on one institution and its service area, the results may not be generalizable or applicable to other settings. Additionally, the researcher's position at the college under study may have caused participants' answers to be biased based on perceived political or relational issues. The researcher was mindful of such responses, and used follow-up statements and questions to elicit transparent answers with such phrases as, "remember, our conversation is completely confidential, and the goal of the study is to identify ways in which stakeholders can be more effective in their roles in the community."

The limited sample of participants may not present a representative perspective among their colleagues, or their answers may include strong biases. Some participants may have a political or personal agenda that may color their answers.

Finally, as a qualitative study, the analysis of the participants' comments is subject to the researcher's interpretation. The researcher sought to minimize personal bias through adherence to the lenses of the theoretical frameworks in data coding.

Summary

This chapter described the methodology used in the study. The chapter covered the background of the study, the purpose, research design, study setting, participants, instrumentation, planned data collection protocols, expected data analysis, ethical considerations, and limitations.

Chapter 4 - Research Findings and Analysis

This chapter presents an analysis of data collected and results of the study. The chapter begins with a review of the research questions, the study methodology and data validation, and participant information. Analysis of the data is presented through the theoretical framework lenses of the entrepreneurial ecosystem, community capitals, and creative class theory.

Background

The purpose of this study was to explore the perceptions of key internal and external stakeholders of the role of the community college in economic development activities, and to identify areas of agreement and gaps in the alignment of the perceptions of these stakeholder groups.

Research Questions

There were five research questions that guided the study:

Research Question 1: What do external stakeholders currently perceive the role of the local community college to be in local economic development efforts?

Research Question 2: What expectations do external stakeholders have for the role of their local community college in local economic development efforts?

Research Question 3: What do internal stakeholders perceive the current role of their institution to be in local economic development efforts?

Research Question 4: What expectations do internal stakeholders have for the role of their institution in local economic development efforts?

Research Question 5: What economic development goals are common and dissimilar among stakeholders?

Research Methodology

The researcher used a qualitative single-case study format to explore the topic. The data for the study was obtained primarily from one-on-one interviews with key internal and external stakeholders. Purposeful sample selection was used to identify and select participants (Lochmiller & Lester, 2017). Because of the exploratory nature of the study, a broad scope of stakeholders, both internal and external, were sought. In addition, a number of external agency economic and community development plans were reviewed to establish the existence, or lack of, a cohesive vision for economic development in the region.

Participant Information

Due to the exploratory nature of the study, a broad scope of stakeholders, both internal and external, was sought. A total of 20 interviews were conducted, 11 internal and nine external participants made up the sample.

Internal stakeholders were selected to include a variety of roles and viewpoints. These included full-time instructional and noninstructional faculty, adjunct faculty, instructional deans, program managers, directors, executive management, and an elected trustee. Participants represented both academic disciplines and career technical education (CTE) programs and contract education programs. Specific positions were not identified to protect the confidentiality of the participants.

The researcher used the entrepreneurial ecosystem theoretical framework to identify external stakeholders who were actively involved in the region, and to ensure a broad spectrum of perspectives. Participants included representatives from local government, umbrella organizations such as chambers of commerce and economic development agencies, local business, education partners, local banking, and community nonprofits. Each of the participants

were active and well known in the community. Because of the small size of the community, more specific detail of participants was withheld to protect their identities and maintain confidentiality.

Data Analysis

The interview questions included general themes to elicit responses from participants that were responsive to the research questions. For the external stakeholders, questions were themed around their own role in economic development activities, their perception of the college and its programs, and their awareness or understanding of the existence and cohesion of the ecosystem of the Coachella Valley. Internal stakeholders were asked about the role of the college in the community and the role of the college in local economic development. Additionally, internal stakeholders were asked about the college's programs and activities, as well as the effectiveness of those programs and activities. Internal stakeholders were also asked questions to gain a sense of their perception of their connection and responsibilities to the community, as well as their awareness of the ecosystem in which the community economy operates.

The researcher found most responses, although varying greatly, displayed many common themes. Similar to the parable of the blind men describing an elephant, participants provided their unique perspectives and understanding of a common subject. Data were organized around key words and phrases, and then compared between groups.

General Data Overview

There were several significant characteristics among the responses participants gave in the interviews. In addition to being asked questions to gain perspectives regarding the college's programs and services, questions were also asked that were designed to elicit responses around the participants' awareness of features found in the theoretical frameworks of the study. For

example, participants were asked about what they saw as strengths of the region, as well as what resources they felt were available in the region to support economic development. These questions were directly related to the community capitals framework and the asset-based community development framework. Other questions sought to gain an understanding of the participant's awareness of the structure of the local formal and informal networks, and how they understood the nature of the interaction among actors in the network.

Entrepreneurial Ecosystem

In general, almost all participants made references to the importance of the local network of people and organizations in the community to effectively advance the community. Yet most of the answers were fairly vague, with few being able to offer concrete examples of how those relationships work. One respondent noted, "I am a firm believer of the interconnectedness of every individual, and ultimately, from a business standpoint, the interconnectedness of businesses."

The entrepreneurial ecosystem theoretical framework provides a structure to identify specific actors in a regional network. Interviewees provided insight for assessing the network in the Coachella Valley, by discussing important components and gaps they perceive from their unique positions. Participants noted the presence of numerous support organizations, such as local chambers of commerce, community-based service organizations, private firms, and health care institutions.

Although participants spoke highly of the College of the Desert's programs and importance in the community, many participants also noted the absence of a 4-year public university is a hindrance to building a highly skilled workforce capable of attracting new

industries. This supports the idea of the importance of knowledge creation as an important input for an entrepreneurial ecosystem (Tyndorf & Glass, 2017).

Additionally, some participants noted investment in the community is important, but there is little access to private capital. One participant who works in the local finance sector noted the valley has mostly startups, which generally do not have access to private capital as this is considered high risk by the institutions, noting, “it’s probably the most challenging time to get financing.” This primarily leaves government programs and friends and family as the only viable financing options for starting new businesses.

As noted in a following section, many of the valley’s residents from lower socioeconomic segments have limited means to gaining a direct connection in a network to local employers. Participants provided evidence the local entrepreneurial ecosystem has many components, but there may be gaps that can make it difficult to gain access to the system and the resources available through that system.

Community Capitals and Community Based Assets

Participants were asked questions intended to draw out their perceptions about assets in the community. Responses varied widely, ranging from a focus on natural resources, to roads and water infrastructure, to community supports. Very few exhibited a comprehensive and holistic understanding of community resources, and how those resources might create a framework for coordinated economic development strategies. In general, answers appeared to be more spontaneous than informed, and tended to focus on one or two specific resources. For example, one respondent said, “Obviously, we have a lot of sun, so solar . . . I don’t know. I just feel like people kind of get ripped off in that field.” The lack of cohesion in the answers appeared to be reflective of the lack of cohesion among the communities of the region, or a unified vision

for the region, as discussed later in this analysis. In describing communities, strengths, and resources, answers seemed to lack any common language or frameworks. The lack of a common framework may create a barrier to the development of common goals and a cohesive vision.

When specifically asked about assets in the community that could be leveraged for economic growth, many respondents defaulted back to the existing leisure and hospitality industry rather than looking towards ways to diversify the economy. As one participant responded, “I think our strength goes back to hospitality and being a destination site . . . I think if we continue to build attractions, that would be great growth for our economy.” Although several respondents referenced tourism and the draw of visitors to the valley, only two respondents directly referenced quality of life as an asset for the community. Additionally, no respondents referenced the proximity of the valley to mountain resorts, beach communities, or the greater Los Angeles area.

There were references to assets in the community that are fairly unique to the area. Because the area is a popular retirement community, there are many retired residents in the region who are very experienced and accomplished, but this is seen as a largely untapped resource. As one respondent noted, “We have tremendous experience; a lot of smart people that have done a lot of things at a very high level.” Additionally, participants cited an unusually robust philanthropic sector, with one person noting, “It is amazing how much money on an annual basis, even through COVID, that was raised to support activities here in the Coachella Valley. Without charitable donations, [many organizations] don’t exist.”

Awareness Regarding Broader Issues

Participants were asked about broader issues of technological change, global issues, and national issues, and the implications for, and impacts to, the region. Although most participants

recognize that there are issues beyond the Valley that have an impact, very few were able to articulate any specific issues or how those issues have an impact. Only two participants were able to articulate a specific example of how artificial intelligence and automation are impacting their industry. None of the participants made any mention of, or reference to, climate change, despite living in an extreme environment that faces issues around water, energy, pollution, and sustainable agriculture.

When asked to expand answers around changing job requirements, future workforce needs, or changes in approaches to education and training, participants acknowledged there are likely to be enormous changes in the future, but few showed any activities around researching or planning to prepare for those changes. Many participants made similar comments as one participant who noted, “I haven’t really thought about that.”

It appeared to the researcher many of the participants have not been involved in any serious conversations around these issues, and when faced with them, participants seemed overwhelmed. For the researcher, this was more evidence of a lack of a cohesive framework in the community. One participant, during a discussion around the impacts of globalization and technological interconnectedness noted, “I think it’s affecting us quite a big deal. I’m not exactly sure how we can, I guess, assert ourselves into that conversation. But I think it’s something that we need to start thinking about and discussing.”

Stakeholder Perceptions of the Role of College of the Desert in Economic Development

Both external and internal participants were asked about the role of College of the Desert in local economic development, what programs the college offered, if those programs are effective, and how the college can better support the community.

External Stakeholder Perceptions

Based on the responses to the questions, external stakeholders hold a very high view of College of the Desert and its place in the community. As one participant stated, “What it [College of the Desert] means to this community is huge.” Many participants were able to reference certain programs such as nursing, HVAC, and the automotive program. At the same time, few participants noted any direct experience with the college’s programs or knew any specific details about the programs.

Respondents generally indicated they perceived the college’s programs to be in alignment with community needs, but also noted not all needs are being met. One participant noted, “I think it’s aligned to some of the local needs, the most visible ones.” Another respondent who owns a local service company noted the college had no training program for the specific trades of their company, despite there being high need for skilled workers in the region. This owner described how the company built its own training facility to develop their own workforce. The participant explained, “We’re in dire straits, which is why we started a [internal training] program.” The person illustrating this is a regionwide problem for their industry to the point the industry formed its own trade school and said:

[There is] a community for tradesmen that come together, and they actually have a school that maintains and gives your employees a certification to become a plumber or an AC technician. As a certified school, you’re actually getting a full-on apprenticeship.

Whereas out here, we don’t have that.

There was also recognition among respondents of gaps in respect to ongoing education. One participant noted, “I see another gap in another space, which is now retraining, reeducating, providing an opportunity for folks in the workforce.” Another expressed this by stating, “A

techie can be obsolete by the time they're 35 . . . you've got to instill in people that mindset of lifetime learning.”

There was recognition among some participants that the college was not always responsive and could be difficult to work with. One respondent lamented:

It's just damn near impossible to get anything done with the academic senate and the professors. There's a lot of bureaucracy in the college when it comes to the union.

Everything we tried to do with the college, it gets muddled up somewhere, you know?

When participants were asked about the college having an expanded role in economic development, many seemed skeptical; especially, when asked about having a role in bringing new business into the area or acting as lead in developing economic growth strategies. One respondent flatly stated, “College of the Desert needs to focus on education.” Yet as respondents talked through their responses, many of them noted, because of College of the Desert's reputation, trust in the community, and regional outlook, many asserted the college should have a significant role, and certainly could be a lead in convening groups for conversations to develop a vision for the region. One participant stated, “I think alignment. I think shared strategies. I think connectivity, community, business, connectivity, college business, connectivity, relationship-building, partnerships. I personally would love to see those things. I think that is the role of the college.”

Internal Stakeholder Perceptions

Internal stakeholders tended to comment on the presence of the college in the community as being a primary means to contributing to economic development and economic growth.

Respondents noted that this happens in two ways: (a) in direct impacts to the community as a

large employer and (b) indirectly by raising educational attainment which leads to higher wages and a larger tax base. As one interviewee stated:

Number 1, first thing that came to my mind was, you're an employer, and you're a strong employer. As so you're providing job and stability to people in that area, therefore, stabilize the economy. On the next tier, you are actually preparing people to enter the workforce in our area, so providing new workforce as part of stabilizing our economy. And then you're making partnerships with the employer to know where our economy is going, where it needs to be, and hopefully partnering on that to develop programs that meet their needs. So, I see that kind of, in multiple ways that we affect the economy.

All respondents noted the primary activity of the college in support of economic development is workforce development and career preparation. Similar to the external stakeholders, internal respondents were able to point to specific examples of where the college has done its job well, but they did not shy away from recognizing that the college needs to do a better job of meeting local needs. As one respondent noted, "I think first of all, we're doing an excellent job meeting many of the needs of business, but not all." Another similarly commented, "We're doing a great job as far as reaching out and holding on to relationships and making new ones. Can we do better? Yes. Should we do better, Yes. We should always try and grow."

In many instances, there were references to the college being somewhat insulated from the community, and many of the relationships came from the community reaching out to the college. As one participant noted, "I don't think that the college does a lot of outreach to the community. They kind of wait for the community to come to them." An internal participant concurred, stating, "A lot of it [employer partnerships] has been where people have just reached out to us directly."

Although many spoke about the importance of relationships between the college and the community, there was no clear consensus as to who should hold responsibility for developing these relationships. Some expressed they felt it was the job of executive management. Others felt the deans should be the primary point of outreach. At the same time, there was a recognition that the primary interface in which programs actually happen was between industry leaders and individual instructors. Many full-time instructors are expected to facilitate industry advisory committees as part of their contractual obligation. One participant expressed this responsibility, stating, “The instructor is the driver. It is what you want.” Yet, there appears to be minimal structure around how advisory committees are formed or managed. One participant noted:

Here’s how it works: You need to put together a faculty advisory committee. What is that? We’ll send you the manual. You know, there’s no real sit down, like, ‘Here’s what it is. Here’s what we would like it to be. Here’s your responsibility.’ That doesn’t happen. It’s very superficial.

Two of the respondents who were instructors with advisory committee responsibilities stated they were unaware the college had an advisory committee handbook.

Additionally, some participants noted the quality of any given program and the ability of the program to meet needs is dependent upon individual instructors and their motive to build a great program. One participant observed:

What I always hear is, you know, “Academic freedom. We have academic freedom.” I don’t know how we get past that, where an instructor doesn’t feel like the college can’t tell them how to run their program . . . From my discussions with other faculty, I’ve seen a very wide variation in the personal sense of responsibility for those things. So, I feel, you know, that’s not right. [Some say] “I have nothing to do with that.” And others are

very passionate, because they're passionate about the community. They're passionate about their industry. They're passionate about the students.

Comparison Between External Stakeholder Perceptions and Internal Stakeholder Perceptions

External stakeholders tended to hold College of the Desert in very high regard in the community, and internal stakeholders seemed to recognize the importance of the college in the community. At the same time, there also seemed to be something of a wall between the community and the college, with the college being very distinct from the community, rather than being integrated into it.

Many internal stakeholders referenced the importance of educational attainment in achieving high-wage jobs; yet, there was very little mention of a direct connection between programs and employers, or connecting students with employers through internships or apprenticeships. Conversely, external stakeholders appeared to have an expectation the college should be more intentional about connecting students to employers and jobs.

Prevalent Themes in the Data

Several themes emerged from coding the data. There were common themes among all stakeholders, themes primarily common among external stakeholders, and themes primarily common among internal stakeholders. This section examines the themes as presented among the stakeholders. Perceptions of the stakeholders as to the importance of issues provided insight into alignment and misalignment of expectations of the role of College of the Desert in economic development activities. Additionally, themes also provided insight into the existence or absence of elements commonly identified with a healthy ecosystem in regard to economic development.

Prevalent Themes Common Among All Stakeholders

Several themes were common to both internal and external stakeholders. The common themes provided insight into how the community perceives itself.

Lack of Cohesion in the Region

The subject that resulted in a clear and emphatic response from both internal and external stakeholders was the question in which participants were asked if they believed there is a cohesive vision for regional economic development. Without exception, each participant responded firmly and immediately with a negative response.

As follow up, participants were asked why they answered the way they did. Several participants were unable to articulate any direct reason why they responded in the manner they did, but noted they did not see any evidence of a cohesive vision.

Many of the participants perceived a high level of division in the region. Several noted political fighting and factions were evident—especially among the municipal elected officials. Respondents attributed different motives to the behavior; still, the primary contributing factor mentioned was the large number of cities and independent entities in the region. As one respondent expressed, “It’s like the Balkans. Every darn one of these nine little cities think they’re more special than the one next to it.” Another participant noted:

There’s a lot of entities that want to, you know, to grow and bring community together. . . . They’ve done all these things, but a lot of times when they start working, they start working against one another. . . . A lot of people, they want their name on it.

Many recognized the divisions come naturally with individuals’ roles and responsibilities. One respondent commented:

So, cities by their nature and by California law, again, state policy on how we're organized and we operate here, need to take care of themselves; and you start retrenching. You start pulling in the oars. You start . . . building up bulwarks, and you protect your own.

Several remarked the COVID-19 global pandemic exacerbated the situation. As one participant stated, "When COVID hit, we basically went into nine different emergency plans."

Not all of the interviewees saw the divisions as being solely in the realm of elected officials. As one long-time resident stated:

[It] seems like there's a lot of different groups working by themselves, so somehow, they could come together. I know they do sometimes. There's conflicts and things like that.

The chambers of commerce are always splitting up. You know, someone will have a disagreement, and so, ok, we're now the new [regional] Chamber of Commerce.

Developing a Cohesive Vision

As a follow-up question regarding perceptions on the lack of a cohesive regional economic development vision, participants were asked what they felt it would take to develop a cohesive vision. Respondents consistently answered there needs to be substantial discussions that include a broad and inclusive array of stakeholders. Several participants expressed they assume these conversations were taking place; yet, they were unable to identify any specifics. As one participant noted, "I'm hoping there is something going on that I don't know about." Another participant stated a similar view, noting:

I don't know if it exists or not. . . . Do we have a committee that includes even you know, city managers, whatever from all the different cities in the Coachella Valley? Do we have the economic development people in there that could actually sit down?

When asked about who they thought should lead those efforts, answers varied widely, and were often vague. For example, one interviewee stated, “The right person should be the person who cares for [the] community.” Most respondents indicated there should be a lead agency or organization, such as the county or an economic development agency, but many also expressed concern that there are few agencies, public or private, that hold sufficient trust in the community to be effective. As one participant noted, “It needs to be whatever organization, sector, institution, has a good public opinion of them, and a lot of sway so that way people actually listen to them.” Another participant observed:

We have a regional economic development organization, but it’s not strategic as far as I can see. It isn’t trusted by the cities for them to put their eggs in its basket to really say, okay, we’re going to develop something together, we’re going to put a strategy together, and then we’re all marching forward along that.

Respondents almost universally expressed belief that the college has an important participatory role and voice in such a conversation; still, few felt taking the lead is not the appropriate role of the college. As one participant stated, “I think that the college can be a convener, a facilitator, a partner, and a funder. I don’t think they have to be a leader.”

Leadership

Closely associated with the theme for a cohesive vision for economic development in the region was the importance of, but lack of leadership. Additionally, none of the respondents saw themselves as having responsibility in taking a particular leadership role for developing a common vision and goals. One participant put it very directly, stating, “The interesting thing in the Coachella Valley right now is that economic development is aching for a leader. Aching, aching, aching, aching!” Another person noted, “You can see in this valley over the last couple

of years that people have been looking for an organization that can kind of help drive that economic development for the entire region. . . . But I do believe there's a strong desire for it, and people are moving that direction."

Several participants noted program success and continuance too often were heavily reliant on individuals, rather than structures or systems. A few respondents reflected on past programs that were highly successful but came to an end when the lead person left, and someone new came in their place who did not have the same vision. One participant noted, "It's so unfortunate that [one successful program] was interrupted because of one person and an organization that let that happen."

The College's Role in the Community

Another nearly universal theme among external and internal stakeholders was the favorable view of College of the Desert in the community. Overall, external stakeholders expressed high praise for the college's place in the community, and what the college means to the community. As one external stakeholder expressed:

I think the College of the Desert is honestly one of the finest educational organizations that I've seen, even though it is a community college, because of how it has put its head down and looked at the region and said, "How do we provide the most value to this region?"

Another external stakeholder noted:

I think that COD has a wonderful name, and you have a regional name. You're not Rancho Mirage Community College, you're College of the Desert. So, in my mind that speaks volumes about positioning and the ability to reach out and become the College of the Desert in a big way; in a splashy, demonstrative way.

Internal stakeholders seemed to recognize the prominence and importance of the college in the community. One participant emphatically stated, “I really think that College of the Desert might be the backbone of our local economy here in the Coachella Valley.” Another participant stated:

You’re an employer, and you’re a strong employer; and so, you’re providing jobs and stability to people in the area. Therefore, it stabilizes the economy. On the next tier, you are actually preparing people to enter the workforce in our area. So, providing new workforce as part of stabilizing our economy, and then you’re making partnerships with the employer to know where our economy is going, where it needs to be, and hopefully partnering on that to develop programs that meet their needs.

Prevalent Themes Among External Stakeholders

There were three common themes brought up by external stakeholders, but were either minimally referenced, or not discussed at all by the internal stakeholders. These themes may provide insight into the misalignment of the efforts of the college and the expectations of the community.

The Need for Economic Diversity

One of the most prevalent themes among external stakeholders was the need to diversify the local economy. All stakeholders demonstrated an understanding that the local economy is built primarily on hospitality and agriculture; yet, external stakeholders tended to discuss the need to encourage the growth of new sectors. Internal stakeholders tended to focus on programs supporting the existing sectors.

External stakeholders identified numerous reasons for the importance of economic diversity: the hospitality industry is too susceptible to economic downturns, the jobs in

hospitality and agriculture are low-wage jobs with little chance for upward mobility, both sectors are seasonal, and year-round industries are needed to grow and stabilize the local economy. As described in one interview:

Our business community here in the Coachella Valley. . . . It's clearly the hospitality/tourism. We are a premier destination worldwide. . . . That is kind of a weak, empty vessel. It's driven on parties, very low-wage jobs, short term events, and does not really add infrastructure. Doesn't add skilled workforce. Doesn't improve wages. Doesn't add housing. Doesn't add . . . I could go on and on.

Others expressed their concern from a personal perspective of seeing young people leave the community. One participant described this, noting:

One of the things that's really kind of tough is, and we have a huge leak, younger people are just chomping at the bit to get out of the Coachella Valley. There's not enough for them here. They want to go to the real world.

Several of the external stakeholders noted a contributing factor is the lack of a 4-year university in the Valley. One person noted:

A standalone 4-year college, I think, is something that would be extremely important for this community. Because I think the thing that has over the years that has limited our ability to bring industry in has been industry's concern that we're not growing an employment base here.

Another participant concurred, stating:

We need to pursue high-wage, sustainable jobs from various sectors, including the creative community, academia. We need higher degree attainment. We need a campus.

One of the things we've been trumpeting over the last couple of years is moving forward on Cal State Palm Desert.

One interviewee described the benefit of additional educational programs from a 4-year, noting, "So, that university needs to have things like coding and chemistry and all of these advanced science degrees, because the top 25 starting pay degrees are all STEM. All of them. The bottom 25 are all not STEM."

Expectation of Connecting Students and Programs to Employment

External stakeholders commonly referenced the terms "internships" and "apprenticeships" when describing the role of College of the Desert in economic development activities. Few internal stakeholders mentioned either term. For College of the Desert, *apprenticeships* denote certain state programs that the college does not participate in. Additionally, the college has no internship opportunities that are specifically connected to educational programs or pathways. The college offers job placement services and student worker programs, but they are independent from instructional programs. In recent years, the College of the Desert Foundation, a separate fundraising arm of the college, initiated and funded two internships at a local newspaper.

External stakeholders noted the strong connection between students and employers is associated with successful outcomes for students and growing the local economy. As one participant described:

Training up a workforce for those sectors, and then getting them into a job where they could continue to be educated while they're working. That's an integrated strategy. So that has lots of tentacles, as you know, because you've got to keep them advancing so that they can stay in the Valley and contribute to the economy. And then we've got our

pipeline. Our pipeline then becomes an enormous asset to outside potential recruitment targets.

One education partner simply replied, “Hey, we all should be measured by how well our students get jobs.”

In response to a question of how the college can better support local economic growth, one respondent replied, “Workforce development programs, internship-type programs. There could be more partnerships, I think within the local business community . . . and so being able to find a direct path for students to get experience within the workforce.”

One interviewee with statewide responsibilities for workforce development programs noted:

It’s about how do we help them get jobs? You know, to me, that’s the last mile that we’ve never really focused on. Our career centers are really focused on career exploration, advising, and figuring out that ed plan. But we’re not really focused on how do we help you get a job?

Regulatory Environment/Business Climate

Most of the external stakeholders discussed the challenging regulatory environment in California as a barrier to attracting new business and expanding the economic base. Conversely, no internal stakeholders made any mention of this issue. This may suggest college personnel may be unaware of some key challenges faced by potential partners.

One external respondent described the problem, stating, “We were impacted very seriously by some of the challenges presented by the business climate within California. This is a very, very expensive place to do business.” Another explained, “You can’t recruit big manufacturing at 25 cents a kilowatt hour and 10 years to get the permits to build a building.”

Internal Stakeholders' Concerns

The most prevalent theme commonly mentioned among internal stakeholders and not mentioned as much by external stakeholders was equity and inclusion. It was woven throughout the discussions with internal participants and appeared central in the culture of the institution.

One participant reflected:

It wasn't that long ago that I was going to national conferences, and there weren't a lot of women, and there definitely weren't a lot of people of color. . . . A parent doesn't want their kid to go to a hotel to go into hospitality to be a housekeeper or maintenance guy, right? [Tells students] keep going. Don't think that you can't be a general manager: Yes, you can. Don't think you can't be president of a company: Yes, you can.

Another noted:

The types of students that I have are students that probably would never think that they would ever continue their education, or get a different career. I think that we are here for a segment of the population that others would ignore, or they would feel that they were always going to be in a certain class or in a certain position in their life. It's kind of like a springboard. If you know that the institution or the program that they're part of is going to do everything in their power to help them succeed, then that really sets the pace for the rest of their lives and the rest of their education.

Agility and Responsiveness in a Changing World

The inability of the institution to adequately keep up with the rate of change, or be sufficiently agile to be responsive to business needs was a theme identified by several internal stakeholders. Many respondents remarked the primary cause is rooted in our own bureaucratic nature. One respondent observed, "Education has been, is one of the least disrupted industries . . .

We have very long-standing traditions. We have very bureaucratic structures.” Another participant explained, “What prevents us from [being more agile and flexible] is traditional curriculum, traditional scheduling. It’s a boxing in that we do to ourselves.” A third respondent similarly stated:

We’ve got all these requirements. We have to be able to develop programs that meet our accreditation needs, that meet the State’s needs; but yet, we can’t develop them fast enough for business and for the ways business has changed.

The structural issue is evident to the external stakeholders. As one explained:

The system of the college is not aligned with how business operates, and it is not aligned with how business expects things to happen. There’s a mismatch there. The business community doesn’t want to hear, “Yes, we can add that. It will take 2 or 3 years to make it through the process.” And they’re, like, “I need these people today! How, I mean . . . 2 or 3 years?”

Several respondents expressed belief that the traditional structure around credit, noncredit, and not-for-credit, prevent programs from working together and being seamless to students. One respondent explained:

It’s a bunch of silos. And whether it’s the school of math and science siloed from career tech, whether it’s communications or language, liberal arts separated from STEM, right? Both transfer, but still siloed. Whether it’s transfer overall versus CTE, we know there’s a gap there.

Several respondents placed the cause directly on faculty themselves, noting the current tenure system and the protection of academic freedom can allow unmotivated faculty to let the

currency of their knowledge and skills fall behind; especially in technical fields. As one respondent illustrated:

When I was at [their former institution], the only machining instructor was still doing it the same way he had learned how to do it in the early 70s. And you know, he was never going to do anything that was automated or controlled. And once he retired, it kind of opened the floodgates for us.

Another noted:

You should always train your students in the latest technology. Always. The faculty, first and foremost, have to be willing to learn the latest technology in order to be able to teach our students the latest technology. And with that comes updating course outlines, the objectives within that course outline. The time that it's going to take them to do that. That's why it is important. Without the willingness to do it, it's very challenging. It's very challenging.

Another respondent expressed:

Faculty should be measured on how successful they are in helping students get jobs. That would change everything . . . It's a really radical idea, because all the other industries do it except us, right? Because, I don't know what do you call that, academic freedom?

Many internal stakeholders expressed the concern that higher education in general, and College of the Desert specifically, need to be more agile and responsive to meet the educational needs of students and industry for the future. They also acknowledged the college and the system are poorly structured to be agile and responsive. Participants noted educational tradition and the bureaucratic nature of higher education are significant barriers to making the changes students and industry need.

Additional Data

The study included a review of documents and websites related to economic development from all nine cities in the Coachella Valley, as well as documents from Riverside County's Economic Development Agency.

All nine cities had web sites for economic development; however, only four have published plans. Five cities only had a web presence with no published plans, and one city combined economic development and community development together onto a single site, with no published plan. All of the websites and planning documents focused on the individual cities, with only one city including a goal to support regional economic development efforts.

For the cities with published plans, the priorities of business development for each city were very different. One city listed tourism, cannabis, and warehousing as its top three priorities, while a neighboring city listed information technology, health services, and education and knowledge creation as its top three priorities. The largest city in the region listed tourism, hospitality, and retail as its main strategic focus even though the retail sector has been in decline in the city for many years, and it has the largest industrial presence in the Valley.

The cities that did not have published plans all had websites promoting their city as a place to consider for businesses looking to startup, move or expand. These sites typically had pages with links to local chambers of commerce and other resources, such as the Small Business Administration.

The review of these sites revealed consistency with the comments of the interview participants in identifying the fracturing and individual natures of the local city governments. Without exception, all respondents verbalized the importance of working together as a region,

while recognizing the role of each city. One participant noted, when explaining the importance of regional efforts in effective economic development:

If it's not regional, it's going to have a hard time gaining a foothold towards future improvement. In this valley, it's always going to start at the city level, because the cities have to take care of themselves and make money for themselves. But the faster that the region comes together and realizes that we impact each other, we are so interconnected as a region, that we have to come up with a more regional approach that encompasses the nine different approaches that are currently in place.

Summary

This chapter provided a brief overview of the research questions and study methodology. The study then reviewed data through theoretical lenses that guided the study. Perceptions of both external and internal stakeholders regarding College of the Desert's role in local economic development were examined. Finally, major themes that surfaced from participant interviews were reviewed, examining themes unique to both external and internal stakeholders, as well as themes unique to each group.

Chapter 5 provides additional analysis, findings, implications for practitioners, and recommendations for further research.

Chapter 5 - Conclusions and Recommendations

This chapter reviews the purpose of the study, the theoretical frameworks used, and provides a brief review of the methodology used. The chapter then discusses the researcher's findings, conclusions, recommendations for practitioners, and recommendations for future research based on the analysis of the data collected in the study.

Study Problem Statement and Purpose

As identified in Chapter 1, there has been little research on the role of the community college in local economic development and the alignment between these programs and the needs of the local business community. Misalignment could create inefficiencies for resource utilization that could result in ineffective programs that do not meet the needs of students in gaining skills needed to achieve gainful employment or meet the needs of local employers. The purpose of the study was to provide insight into whether or not there was alignment in stakeholders' perceptions, and identify areas in which there is poor alignment. The aim of the study was to provide practitioners with recommendations for improving program alignment and efficiencies in using scarce college resources.

Theoretical and Conceptual Frameworks

Three theoretical frameworks were used to direct the focus of this study: entrepreneurial ecosystems (Isenberg, 2014), community capitals framework (Emery & Flora, 2006), and creative class theory (Florida, 2014).

Entrepreneurial ecosystems theory recognizes independent; yet, interdependent actors work together in a system of formal and informal networks that provide access to key resources (Isenberg, 2014).

Community capitals theory describes seven specific assets in a region: natural, cultural, human, social, political, financial, and built (Emery & Flora, 2006). The theory postulates communities who invest in these capitals tend to spiral up, and those who neglect these capitals tend to spiral down.

Creative class theory sets the argument that the attraction of talent in job classifications considered to be “creative” generates greater than normal economic growth (Florida, 2014).

Methodology

The study methodology used a qualitative case study approach examining the perceptions of internal and external stakeholders of the College of the Desert and its service area. College of the Desert is a single college district in southern California. The study focused on stakeholders’ perceptions of the role of College of the Desert in local economic development efforts. The primary data collection method was semistructured interviews with key stakeholders. This structure allowed the researcher the flexibility to follow “unexpected pathways [which] appear during the collection and analysis” of the data (Lochmiller & Lester, 2017, p. 99). The review of documents, web pages, newspapers, and other sources provided descriptive data to establish the context and nature of the local ecosystem (Lochmiller & Lester, 2017).

The case study approach was bounded by the stakeholders as identified in the entrepreneurial ecosystem. The case study method, “in which there are a set of parts or operations that work together to create the whole” (Lochmiller & Lester, 2017, p. 102), fit well with the study framework, which was a system “highly dependent on mutual cooperative efforts between communities and their various public and private institutions” (Cantor, 1991, pp. 125–126). The stakeholders were selected from the groups identified in the economic ecosystem model.

Study Significance

The study sought to gain insights into the role of community colleges in local and regional economic development programs, and the complex nature of the interdependent relationships among independent actors within an economic ecosystem. Better understanding of the roles and relationships of the various actors may positively influence the effectiveness of the efforts of community colleges in supporting local economic development. Comparing the institution examined in this case study with the theoretical frameworks may provide practitioners with new tools for understanding the ecosystem in which they operate and identify barriers to improving effectiveness of their programs in their region.

The study adds to existing knowledge by affirming or not affirming findings from prior studies. Additionally, the study provides new data for the application of the three theoretical frameworks used in the study.

Findings

Findings in Relation to the Theoretical Frameworks

Recent research indicates a systematic approach to developing an entrepreneurial ecosystem in which entrepreneurs can access resources through the formal and informal social networks of the ecosystem can spur robust economic growth in a community (Spigel & Harrison, 2018). Furthermore, each of the theoretical lenses utilized in the study provide specific, coordinated elements that may be associated with healthy, sustainable economic development.

Although the literature suggested important elements that should be present to support sustainable economic growth, this study supported those findings in the negative (i.e., where those elements are lacking, minimal economic progress may result). A nearly universal desire for communities is for their citizens to thrive and be prosperous. Although the desire for prosperity

may be universal, there is no singular formula that can be applied to ensure a positive outcome in every situation. Because this study focused on one region, the findings may not be generalizable to all situations, however there may be insights transferable for any community and the colleges within those communities.

The researcher found the region focused on in this study appeared to be fragmented, with evidence of cohesion among stakeholders in developing a vision for regional economic development difficult to find. Additionally, the researcher found an absence of common language, framework, strategies, or understanding around economic development activities.

Entrepreneurial Ecosystem Framework

Based on the lack of cohesion among the various actors in the region, it is not surprising that the local network appears to be fragmented and difficult to access for many. Examples of this include economically disadvantaged residents who do not have direct access to employers, small businesses with difficulty accessing capital to start or grow a business, and the lack of a local four-year institution or any meaningful industry clusters, which minimize the creation of knowledge that can be leveraged into a regional advantage.

Only four of the 20 interviewees directly mentioned the importance of entrepreneurship to the community. Internal stakeholders consistently spoke of the importance of intentionality in addressing equity issues, demonstrating equity is ingrained in the culture at the college. In contrast, there was little evidence of a cultural emphasis on entrepreneurship and innovation in the college.

Nearly all participants expressed the importance of, and a desire for, regional economic development efforts; yet, there was no consistency in identifying who should take leadership in

developing a vision for the region. The researcher concluded the existing entrepreneurial ecosystem was not ideal to support robust economic growth.

Community Capitals and Asset-Based Community Development

Analysis of the interview transcripts revealed little evidence of a common understanding of assets in the community, or how they can be leveraged to generate economic growth. Respondents identified many assets, such as abundant sunshine, strong anchor industries of tourism and hospitality, and proximity to a major east/west corridor. Yet, responses were inconsistent. This may be a barrier to developing strategic investments in the community as there is no consensus around a full inventory of community assets, and which could be leveraged for economic growth. Based on economic development plans, there are dedicated funds for promoting tourism and hospitality, but there are few resources spent on recruiting new businesses or investments towards diversifying the local economy.

The researcher concluded the lack of understanding of community assets as resources for development may result in lower economic growth in the region, as predicted in the community capitals and asset-based community development models.

Creative Class

Participants demonstrated minimal awareness around theories of the importance of attracting talent to spur growth in the region. Only two participants identified the region needs younger people who will create a year-round economy to stabilize and grow the local economy. In addition, most external participants noted concern regarding career prospects for high school graduates, and the need for them to leave the region to receive a 4-year education. Only one respondent specifically expressed the idea that the attraction of talent is necessary to attract new business. None of the participants referred to Florida's (2014) idea that talent attracts talent and

spurs innovation. The researcher concluded lack of awareness regarding the importance of attracting a creative and innovative may place the region at a disadvantage in attracting new industries.

Theoretical Frameworks Conclusion

The researcher found little evidence the region has strong characteristics in alignment with the theoretical frameworks used in the study. Consistent with the expected outcomes from the lack of strong characteristics, it is not surprising the region has experienced little economic growth outside of the tourism and hospitality industries, nor has significant progress been made in diversifying the local economy beyond tourism and hospitality.

Findings on Stakeholder Perceptions of the Role of College of the Desert in Economic Development

Previous studies identified differences between internal and external stakeholder perceptions in regard to the effectiveness of community colleges' programs and activities related to economic development (Boone, 1994; C. S. Lee, 2010; Singleton, 2018). Singleton's (2018) study concluded lack of outreach and communication was a significant contributing factor in differing perceptions. Although two respondents expressed College of the Desert could do more to let the community know about its programs and offerings, this did not appear as a major theme in this study.

The researcher found both external and internal respondents had similar views of the availability and effectiveness of college programs in supporting the community. Additionally, both external and internal stakeholder groups consistently noted a lack of a cohesive vision for the Coachella Valley as well as significant fracturing among the cities and key stakeholder groups. As a result, there is no vision for regional economic development for the college to align

its efforts to, potentially presenting a barrier to developing broader programs to meet regional needs. This is consistent with responses that indicated the college has had some very successful programs, though significant gaps still remain.

External stakeholders generally were able to identify programs that the college has a strong reputation for, including nursing, automotive, and HVAC. The same respondents were also able to identify areas of need in the region, including advanced energy systems, construction trades, and information technology. Similarly, internal stakeholders also identified the same programs that external stakeholders recognized as successful programs. Internal stakeholders also expressed belief the college has gaps in its programs needed in the community.

Both groups similarly expressed the primary activity of the college in support of economic development to be workforce development. Neither group identified structures around how the college could prioritize and develop new programs. In addition, both groups noted the importance of the college in participating in regional economic development planning and commented the college ought not to serve as the lead convener of such discussions. This was in contrast to perceptions of the college being one of the most trusted entities with a regional perspective who could successfully take on a convener role. This view was also counter to the experiences of colleges who have been highly successful as community conveners and coordinators (Velluzzi, 2010).

Low Awareness of Broad Issues

Respondents generally did not display a clear understanding of the impacts of national and global issues on local economic development. Nor did they demonstrate an understanding of the potential impacts of technology, political or environmental changes on future economic

growth and stability. Additionally, none of the participants indicated they were involved in planning or preparation that included adjusting for changes in technology or external conditions.

None of the issues or potential impacts presented in the literature regarding the Fourth Industrial Revolution seemed to be of great concern to any of the stakeholders. Although participants noted technology continues to change rapidly, there was no direct connection to statements regarding sustainable economic growth in the region. This lack of awareness will likely be a barrier to any meaningful planning or adjustment to approaches to economic growth strategies.

Most internal participants noted their focus tends to be in their own functional area, with little involvement outside of their program. Similarly, many participants commented programs at the college were very siloed, and noted they perceive silos in the organization as being a barrier to the college becoming more agile and responsive.

Even though external participants consistently commented on the need to restructure education to be more conducive to lifelong learning, retraining, and upskilling, few internal stakeholders seem to have the same awareness. Yet when asked specifically about this, most agreed these issues are important and need to be addressed.

Internally, there were no clear structures or procedures identified for evaluating local labor market needs or changes in the external environment. Program development is left for faculty to develop, which varies greatly among faculty. No structures or procedures were identified to evaluate emerging job markets or coordinate outreach into the business community, or to evaluate and adjust curriculum to emerging needs.

Similarly, external stakeholders consistently commented on the need to diversify the economy, and to provide more career opportunities for youth in the region. Yet, none articulated

a vision or pathway to accomplish this. These findings reflect the fragmentation of the region, which may create a barrier to creating cohesive language and planning for economic development, and to make meaningful progress in creating economic growth.

Findings in Relation to Prior Research

The theoretical frameworks used in the study identified several factors that would likely be present in a region with robust growth. This study revealed many of these factors appeared to be minimal in the service area of the college. Findings of this study are consistent with the theories in that robust growth and economic diversification are not present in the region.

The researcher found scant literature or prior research directly addressing the topic of this study. Two primary findings from prior research noted college faculty and staff tended to perceive their programs and services as more robust than their external partners, and colleges need to communicate their offerings more effectively (Boone, 1994; Chen, 1995; C. S. Lee, 2010; Singleton, 2018). Both themes were minimally present in the results of this study. This may stem from the positive perception of the college in the community, and a realistic view of faculty and administration as to the work that still needs to be done to better support the community.

Consistent with Boone's findings (1994), only a few of the 18 commonly used strategies were employed at College of the Desert at the time of the study. A review of the programs utilized at College of the Desert found that the college employed eight of the 18 strategies.

One consistent finding with prior research was that many initiatives and programs tend to be dependent on individual leaders. Although leadership is key in developing a vision and motivating partners, if no structures are put in place to ensure sustainability, many successful programs have ended simply because of changes in leadership or key staff positions.

Implications and Recommendations

The study findings present implications for consideration for internal and external stakeholders. Findings would suggest to improve economic growth in the region, conversations could be started among key stakeholders with the purpose of developing a common language and vision, developing relationships and establishing structures to encourage more productive interaction among stakeholders, assessing community assets that can be leveraged for economic development, developing regional goals, and developing parameters to identify emerging industries that would be complementary to the region.

Stakeholders may want to consider supporting the formation and dedicated funding of a regional economic agency to provide a framework for sustainable economic development programs. It is recommended that the agency be capable of developing trusting relationships, have regional decision-making authority, and have access to a dedicated public funding source. Such an agency could leverage the leadership strengths of local stakeholders while developing structures to prevent efforts from becoming too dependent on individuals.

This study focused on one community college in a unique setting. Nonetheless, practitioners from other colleges may relevant areas for consideration in evaluating programs and activities at their own colleges.

Understand the Implications of the Fourth Industrial Revolution (4IR)

As many researchers have noted, the implications of the 4IR are vast and far-reaching. The implications can be disruptive to both individuals and firms as automation increases and workers are displaced. The 4IR can also bring opportunity through emerging technologies and industries. The implications cited in the literature for education are immense as many workers will need to continually retrain throughout their careers.

National policy will need to support broadband access to communities to ensure that technology infrastructure does not leave rural and poor communities without opportunities to participate and prosper. It is recommended that state agencies consider how they might support regional EDOs who can provide support for regional efforts to develop community assets and infrastructure to attract knowledge and creative workers. EDOs can assist communities identify promising industries and technologies that align well with their resources, goals, and cultures.

Community colleges are well-positioned to partner together with the EDOs to provide a trained workforce attractive to target industries. Both EDOs and community colleges can work as conveners to bring actors within the local entrepreneurial ecosystem together to identify common goals and develop strategies to advance economic development responsive to opportunities in the 4IR.

Address the Culture of Higher Education

Researchers have noted the barriers created by the bureaucratic and traditional nature of higher education institutions to becoming the agile organizations needed to adapt in the 4IR environment (Gleason, 2018; Lowendahl et al., 2020). One of the interviewees in the study with statewide oversight responsibilities noted, “A lot of other sectors have been disrupted, but education has been one of the least disrupted industries.” Although the call for change appears great in the literature, change in practice appears to be challenging. Researchers have also suggested to not change is to risk becoming irrelevant to students moving into the future.

State systems may wish to consider streamlining curriculum approval processes to enable colleges to be able to respond to emerging needs more quickly. Innovation may be encouraged by allowing colleges to experiment with different teaching modalities and structures that support industry needs, such as certifications and competency-based advancement.

Colleges could consider reviewing how they engage their stakeholders in the community and assess if the institution's own policies and structures are preventing them from being responsive to their constituents needs. This may include examining schedules as to when students can enter a course of study, when courses are offered, and the types of modalities in which courses are offered.

Colleges may also wish to consider how they engage faculty to innovate and improve instructional programs. This may include offering appropriate faculty opportunities for professional development in advanced technologies and industry conferences. Appropriate incentives should be considered as a demonstration of commitment of the institution to investing in faculty capacity and capability.

Connect Educational Programs to Employment

As Jenkins and Fink (2021) noted, community college enrollments are down nationwide, and have been declining generally for nearly 10 years. They cite the primary cause as being colleges offering programs that are not worth the time and cost to the student. Colleges may want to consider how they evaluate labor demands, and assess how directly their programs connect to employers and employment. As the entrepreneurial ecosystem model suggests, students need to be able to find an entry point into the local networks to gain access to employers and employment.

This may include developing more programs with embedded internships and apprenticeships. Expansion of such programs may strengthen the ties between colleges and local businesses while offering students an opportunity to gain exposure to local business owners and hiring managers. This may be especially important for students from lower socioeconomic backgrounds who often do not have access to local employer networks.

Creating pathways that directly connect to employment with demonstrated job placement rates and income ranges may appear to be more of a clear value proposition to prospective students.

Establish Dedicated Resources Within Colleges for Economic Development Programs

Colleges may wish to consider evaluating their structures around outreach and economic development. Colleges efforts may be more effective by targeting resources in an intentional manner toward economic development. This may promote increasing use of data in the decision-making process rather than relying on the initiative and enthusiasm of individual instructors and administrators. This may also increase consistency in how colleges identify and pursue new programs and pathways.

Colleges may also want to consider creating a position dedicated to outreach to the local community as a single point person for supporting regional economic development efforts. This resource would provide an access point for the community regarding emerging job markets and workforce development. Additionally, this resource could serve as facilitator in expanding the role of the college as a convener.

Additionally, a dedicated resource may improve accessibility of college resources to community stakeholders. This may provide an easier entry point for individuals to enter the local entrepreneurial ecosystem network, and gain access to educational resources as well as connections to other resources in the ecosystem.

Increase Utilization of Economic Development Strategies

Colleges may want to consider increasing the economic development activities to expand its reach and influence. Boone's (1994) research suggested that most colleges only use a few of

the strategies commonly employed among community colleges. Employing even a few additional strategies may significantly extend the reach of a college into the community.

Establish Partnerships with Other Higher Education Institutions to Increase Local Educational Opportunities

Community colleges may want to consider entering into partnerships with other higher education institutions. The subject of the case study is in an isolated region with no dedicated four-year institutions, causing local youth to leave the area to seek educational opportunities. By creating partnerships with other institutions, community colleges may be able to offer additional educational pathways for students, enabling them to remain in the region to complete higher-level degrees. This may diminish the need for local youth to leave the area to find educational and career opportunities. Additionally, as noted by Tyndorf and Glass (2017), the presence of local universities is important for knowledge creation, which may further attract new industries, thereby increasing the diversity of a local economy. Partnerships with community colleges draws on their strengths in workforce training, providing firms with a qualified labor pool to leverage new technologies.

Develop the Capacity to Act as Community Conveners

Community colleges may want to consider cultivating their capacity to act as a convener for economic and community development. Community colleges are generally highly valued in their respective communities, and are well positioned to be a primary convergence point for industry and the community. Leveraging the position of the local college to bring key stakeholders together may provide a platform to enable the actors within an entrepreneurial ecosystem to develop comprehensive structures attractive to outside enterprises, thereby creating opportunities for expanded growth.

Assess Approaches to Labor Market Research and Determining Job Skills Requirements

Colleges may want to consider how labor market data are gathered and analyzed. Literature supports the increasing rate of change in technical areas results in greater need for ongoing education (Penprase, 2018). Although labor market data are important, data are generally at least two years old and do not necessarily indicate required changes in skills needed for future employment. Closer ties with local industry and education partners may be helpful in identifying emerging trends in the labor market, as well as emerging technologies that may affect students' future job prospects.

A proactive approach to labor market evaluation may also help minimize silos by focusing on skillsets needed regardless of discipline, and to develop better connection in integrating multiple disciplines for emerging needs.

Provide Professional Development and Support for Instructors with Industry Advisory Group Responsibilities

There is broad agreement that community colleges nationally are drivers of economic growth, primarily through workforce development efforts. Literature reviewed in this study suggested the ability of a college to successfully respond to the needs of local workforce demands primarily rests on the strength of the relationships between local businesses and nearby colleges (Garmise, 2009; Ross, et al., 2020). Although college leadership and administration have responsibilities for establishing relationships with political and industry leaders in the community, curriculum development and implementation falls to the instructors who ultimately deliver training and instruction.

College administrators may want to consider evaluating their current structure and organizational approach to industry advisory groups. Industry advisory groups are often a

contractual responsibility for full-time instructors; however, this study suggests that faculty may not be adequately trained for their roles and responsibilities in forming and leading advisory groups. Additionally, industry advisory groups are generally the primary direct connection between a college and their regional community, but they often rely on individual instructors own personal network in the community to identify firms for participation. Structures and supports should be in place to ensure the quality and consistency of groups, which may increase the effectiveness of the groups. Additionally, existing structures to identify new groups needed to address emerging workforce demands should be reviewed to ensure efforts are effective.

Implications and Recommendations Summary

Community colleges have an important place in their communities, and often enjoy a high level of support from the community. The implications and recommendations presented are intended to provide practitioners with areas to consider to improve the effectiveness of college programs in supporting the local community.

Recommendations for Future Research

The study was intended to explore the perceptions of internal and external stakeholders of the role of College of the Desert in relation to local economic development. The study was designed to be exploratory, as there is little research in the subject area. There are several recommendations for future research that can be made.

Replicate the Study at Other Institutions

This study was a single-subject case study; therefore, the results may not be applicable to other institutions. Recreating this study may validate findings or provide insight into how various factors may influence the effectiveness of economic development activities at other institutions.

Identifying commonalities and differences present among different institutions may provide additional insight in improving programs in support of local communities.

Understand Factors of High-Performing Ecosystems

The results of the study were consistent with the theoretical frameworks employed in the study, in that many of the factors considered important to successful efforts are found to be missing in the region, and the region has struggled to create meaningful growth and economic diversity outside of the existing dominant industries. Studies similar to this in regions that have experienced significant gain on economic development goals may further validate the importance of specific factors, or result in new theories of economic growth. Additionally, such studies may shed light on the importance of 2- and 4-year institutions as a factor in an entrepreneurial ecosystem.

Examine the Development of Community Cohesion as a Factor of Economic Development

The literature reviewed in this study did not directly address cohesion of actors within an entrepreneurial ecosystem. The region in which the study took place showed strong evidence of a lack of community cohesion, which may evidence a significant lack of trust among key stakeholders. This lack of trust may significantly impede knowledge transfer within the entrepreneurial ecosystem. The study suggested a significant factor in the lack of progress in economic growth and economic diversity was the lack of cohesion in the communities of the region that made up the entrepreneurial ecosystem of the study subject. Studies examining regional and community cohesion are recommended to increase the understanding of the effects of the presence or absence of cohesion on regional economic development, as well as the effects of community cohesion on the presence or absence of factors associated with strong economic growth.

This study affirmed expected results based on the theoretical frameworks in the negative, in that the subject region lacks many of the elements expected to be present in communities with above normal economic growth. Additional studies on community cohesion in regions with high economic growth could shed further light on the role of community cohesion.

The Community College as Convener

Further study on the role of community colleges as conveners in economic development is recommended to increase understanding of factors leading to successful and unsuccessful economic development efforts. The review of literature for this study suggested that community colleges may successfully act as conveners, but because their role is limited, their ability to create broad consensus may be limited. Study participants seemed to support that position, noting that the college, while well-respected, would better focus its efforts on direct educational activities.

Further study on colleges who successfully operate as the convener in regional economic development activities may provide insights into how community colleges can best leverage their role as either convener, or in a coordinating supportive role to other conveners. Further study may also provide insight into the roles and relationships among various convening organizations in relationship to successful economic development efforts.

Conclusion

Community colleges are the primary provider of workforce development in their communities. Enrollments in community colleges have been declining nationally for many years, and the COVID-19 global pandemic has only accelerated this trend. As potential students explore other paths to meet their career goals, it is incumbent on leaders to ensure educational programs and offerings provide a high return on students' investments. Additionally, rapid

changes in technology, especially automation and artificial intelligence, are increasing the need for continual lifelong learning. To accommodate the needs of students and their communities, colleges need to respond by becoming more agile and responsive. If colleges are able to embrace change and learn to adapt, they can be a powerful driver of sustainable economic prosperity for their communities. If they are unable to change and adapt, they run the risk of becoming obsolete and irrelevant to potential students.

This study looked at the perceptions of internal and external stakeholders of the role of College of the Desert in local economic development. Although significant alignment was found in the perceptions, there are significant gaps in college programs in meeting the needs of the local community. College of the Desert has enormous strengths to build on, but also has room for improvement in serving and supporting the communities in its service area.

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Appendix A - Theoretical Framework Alignment

The proposed study is informed by three theoretical theories: Isenberg’s (2010) entrepreneurial ecosystems theory, Emery and Flora’s (2006) community capitals theory, and Florida’s (2019) creative class theory. The three frameworks together create a holistic lens that accounts for the assets in a community and activities of interdependent, yet independent players in a bounded system, making this an ideal lens for understanding the economic environment found in the subject community.

		Entrepreneurial Ecosystems			
		Government	Education	Umbrella Organizations	Private Firms
Community Capitals	Natural	X		X	X
	Cultural		X	X	
	Human		X	X	X
	Social	X	X	X	X
	Political	X	X	X	X
	Financial	X			X
	Built	X			

Creative Class		
Technology	Talent	Tolerance

As each theory provides a basis for economic development practice, combining the three provides a framework that illuminates key roles by different actors in development. For example, government is the entity primarily concerned with, and responsible for, the infrastructure (built capitals) of a community. Yet the built infrastructure is important for attracting new companies to a community, which is an important aspect of creative class theory.

Thus, the frameworks inform the research questions in identifying what role stakeholders play, and which capitals they affect through their actions. In this way, there is an ability to

determine the alignment between activities among various stakeholders and how they interact.

Additionally, the frameworks may identify potential gaps in available resources, or shed light on conditions needed to attract and develop new industries.

Appendix B - Sample Participant Recruitment Letter

Dear Ms. Smith,

I am contacting you to request your participation in a doctoral research project.

I am a doctoral student with the Kansas State University Community College Leadership Program, College of the Desert cohort, and conducting research on the role of community colleges in economic development activities. The purpose of the study is to gain a better understanding of how community colleges interact with other community partners and stakeholders to support regional economic development activities.

You have been identified as a key stakeholder in the community, and your insight from your knowledge and experience would be an important contribution to this study. Your participation would consist of an interview of no more than 1 hour in length.

Participation in this research is completely voluntary and there are minimal foreseeable risks to you. In addition, you may withdraw from the interview process at any time. Your participation and responses will remain confidential, and no identifiable information will be revealed in the study.

Once the study is completed, you will be provided with a copy of the study, which aims to provide insights into how regional entities can better engage in more efficient and effective economic development activities.

A copy of the informed consent form is attached for your convenience. I will need to have the form completed prior to the start of the interview.

To schedule the interview, please contact me at (XXX) XXX-XXXX, or via email at xxxxx@ksu.edu.

If you have any questions or concerns regarding this research project, please feel free to contact me at (XXX) XXX-XXXX , via email at xxxxx@ksu.edu, or the Kansas State University research office at comply@k-state.edu.

Again, your participation in this study is greatly appreciated!

Sincerely,

John. R. Ramont

Appendix C - Informed Consent Form

Project Researcher: John Ramont, (XXX) XXX-XXXX, xxxxx@ksu.edu

Project Title: The role of community colleges in economic development: A case study of internal and external stakeholders' perceptions

Purpose of the Research Project: The purpose of the study is to gain a better understanding of how community colleges interact with other community partners and stakeholders to support regional economic development activities.

Your participation in the above-named researcher's project is greatly appreciated, and will consist of a personal interview of approximately 1 hour.

Terms of Participation: I understand this project is research, and that my participation is voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits to which I may otherwise be entitled.

As a participant in this study, you understand and agree to the following:

1. You may choose not to be part of this study and you may withdraw from the study at any time.
2. Your identity is confidential
3. You must give permission for the researcher to record the interview. You understand that the recorded interviews may be transcribed. The researcher will develop a way to code the data to assure that your name is protected.
4. Data will be kept in a secure and locked cabinet, and will not be kept on any device connected to a network. The data will be kept for 5 years and then destroyed.
5. The results of the study may be published.

6. The researcher has fully explained the nature of the research study and has answered all questions and concerns about the research study.

If you have any questions or concerns regarding this research project, please feel free to contact me at (XXX) XXX-XXXX, via email at xxxxx@ksu.edu, or the Kansas State University research office at comply@k-state.edu.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

Participant Signature: _____ Date: _____

Print Name: _____

Witness to Signature: _____ Date: _____

Appendix D - External Stakeholder Interview Questions

1. Please tell me about your organization and its purpose in relation to economic development in the Coachella Valley. *(RQ 5)*
2. Please tell me about your role in economic development activities. *(RQ 5)*
3. Please describe the economic development strategies and activities your organization utilizes. *(RQ 5)*
4. What are the priorities and goals for economic development from the perspective of your organization? *(RQ 5)*
5. What issues is your organization trying to address through economic development? *(RQ 5)*
6. Do you believe that there is a clear vision within the Coachella Valley for economic development? If so, what do you perceive that vision to be? If not, what is needed, in your opinion, to develop one? *(RQ1, RQ3, RQ 5)*
7. What resources or other support do you believe are needed for the Coachella Valley to effectively stabilize and grow the local economy? *(RQ1, RQ3, RQ 5)*
8. Please tell me what you believe the role of College of the Desert to be in economic development strategies and activities? *(RQ1, RQ3)*
9. Please describe your perception of the effectiveness of the programs and activities that College of the Desert offers in relation to their role in local economic development. *(RQ1, RQ3)*
10. Please describe the level of alignment that you perceive to be between the programs and activities of the College of the Desert, and local business needs. *(RQ1, RQ3)*

11. Please describe any programs or activities of College of the Desert that could be more effective. (*RQ1, RQ3*)
12. What additional programs, resources, or activities do you think that College of the Desert should provide to better support local business and economic growth? (*RQ1, RQ3*)

Appendix E - Internal Stakeholder Interview Questions

1. Please describe your perception of the role of College of the Desert in local economic development. *(RQ2, RQ4)*
 - a. Describe your view of the appropriateness of that role?
 - b. What do you believe the role of College of the Desert should be in local economic development activities?
2. Tell me about the primary programs, activities, and resources that the College of the Desert utilizes in support of local economic development. *(RQ2, RQ4)*
3. Please describe, in your own words, the primary mission of College of the Desert; and how you see economic development activities as being aligned or misaligned with the mission. *(RQ2, RQ4)*
4. What local issues do you believe should be addressed through economic development? *(RQ2, RQ4, RQ5)*
 - a. What do you see the as the responsibilities of the college in addressing these issues, if any?
5. What is your perception of College of the Desert's ability to respond to and meet the workforce development needs of local business? *(RQ2, RQ4)*
6. What barriers do you feel prevent College of the Desert from being more responsive to local business needs? *(RQ2, RQ4)*
7. Describe your perception of the effectiveness of College of the Desert's relationships with local businesses and industry groups. *(RQ2, RQ4)*

8. Do you believe that there is a clear vision within the Coachella Valley for economic development? If so, what do you perceive that vision to be? If not, what is needed, in your opinion, to develop one? (*RQ2, RQ4, RQ5*)
9. What do you believe is needed for the College of the Desert to be more effective in its role in local economic development? (*RQ2, RQ4*)