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Innovation Strategies for Rural Micro and Small Businesses

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Abstract

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by

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MS, University of San Francisco, 2010

BA, Antioch University, 1994

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Facing many unique challenges compared to their urban counterparts, rural business owners rely on innovation strategies to successfully operate their businesses. Reflecting only 14% of the population but occupying more than 72% of the geographic United States, the failure of rural business owners jeopardizes the network of goods and services that feed and support the entire nation. Grounded in Castle's rural capital framework and Van de Ven's innovation framework, the purpose of this qualitative multiple case study was to explore the strategies rural small business owners use to ensure business innovation. The participants were eight successful rural small business owners from eight rural small businesses in the western United States. Data were collected by conducting in-person, semistructured interviews and business processes, electronic documents, and physical artifacts. Yin's 5-step approach was employed to analyze the data. Six themes emerged: create a clear context for innovation behaviors by linking them to drivers; foster capability through self-efficacy, personal development, and organizational learning; ensure a capacity for innovation by linking resources and behaviors; utilize rural and nonrural resources; scan, develop, and test ideas; and assess and adjust innovation results through custom results measurement. A key recommendation is for rural small business owners to engage in intentional management practices to cultivate an ongoing and iterative culture of innovation to enhance competitiveness. Implications for social change include the potential to cultivate stronger business practices to ensure healthy rural communities and to secure goods and services used across the United States.

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Dedication

I dedicate this study to my children, who were it not for them, this never would have happened. We have been through so much during this journey, all that life could have thrown our way. Your perseverance, resilience, and relentless persistence to cling to life are the source of my inspiration, sometimes making it by the thinnest of margins, overcoming death, cancer, and so much more. When I had all but given up, you smiled and encouraged me. I love you both with all my heart. Live fully, love deeply, and revel in joy no matter where you go.

Acknowledgments

It may take a village to raise a child, and likewise, it takes a whole, intricately woven group of people to produce a work such as this. I acknowledge my whole family for supporting me through this process over the years. For never tiring of hearing me talk about it, for always being encouraging, even when I wasn't, and for being witness to this incredible process of transformation. A deeply important part of that ecosystem of support was my Committee Chair Dr. Faint. You are an amazing coach, mentor, teacher, and leader. I hope to be like you some day when I grow up. Your direction and encouragement made me believe, in the darkest moments on the mountain, that I could do this. Thank you so much for all you give, and all of who you are in this process.

Additionally, thank you to my committee member Dr. Campos, the librarians, the writing center who elevated this process to the level of excellence, ensuring that not only something valuable was achieved for my academic journey but also for the communities who participated. And thank you so deeply, for all who came before, all who walked with me, and to those who are just embarking on this path: Let it change you, let it support you, let it change even just a little portion of the world.

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Section 1: Foundation of the Study

Background of the Problem

Rural businesses make up the backbone of the American economy yet receive little support or acknowledgment for the important role they play. Rural firms consist mostly of micro and small businesses, and they are often the only organizations providing critical services to areas where there are limited resources (United States Department of Agriculture [USDA], 2020). A rural area is defined as a nonmetro area, with degrees of rurality ranging from cities not associated with a larger urban center to towns with fewer than 2,500 and up to 50,000, with rurality further defined using location descriptions rated as 8-9 on the Economic Research Service Rural Continuum Code (USDA Economic Research Service, 2020). The U.S. Census (2019) defined 97% of the United States as rural, yet this area only contains 20% of the population. According to the Small Business Administration (2020), a micro-business has less than 10 employees, a small firm is less than 500, and 99% of firms in the United States fall into this category (2020). Rural small businesses perform better than their urban counterparts, despite the distinct challenges they face, such as a lack of skilled workforce, limited to no broadband infrastructure, and low levels of funding (Phillipson et al., 2019; United States Congress, 2018). When examining the success of rural micro and small enterprises (MSEs), limited studies have shown unique, innovative strategies supporting their performance (Cowie et al., 2020; Deakins & Bensemann, 2019), but little research is related to innovation strategies employed by rural MSEs in the United States. This study is dedicated to furthering the understanding of how to support rural MSEs business success.

Problem Statement

Rural small business owners in the United States are in social and economic danger as businesses that provide critical levels of services and employment are vulnerable to failure and poor performance due to the inability to innovate successfully (Madureira & Torre, 2019). Reflecting only 14% of the population but occupying more than 72% of the geographic United States, the failure of rural businesses jeopardizes the network of goods and services that feed and support the entire nation (U.S. Congress, Joint Economic Committee Democrats, U.S. Senator Martin Heinrich, 2018, June). The general business problem is that rural small business owners faced with unique geographic and market challenges are susceptible to deterioration of services, and potential business failure due to limited innovation strategies and skills. The specific business problem is that some rural small business owners lack innovation strategies to increase profitability.

Purpose Statement

The purpose of this qualitative multiple case study was to explore rural business owners' successful innovation strategies to increase profitability. The target population consisted of eight small businesses located in a northern Californian rural area who had been in operation for at least 1 year and had been successful in implementing innovation strategies for improving their business performance. The implications for positive social change include the potential to improve the success rates of small businesses in the rural areas of northern California, supporting stable employment, services, and local economies.

Nature of the Study

Quantitative, qualitative, and mixed methods were considered for the study. Qualitative research is used to discover and explore both the potential antecedents and factors of a phenomenon that exist within a bounded system to explore aspects of that phenomenon to identify perceptions, realities, and behaviors over time (Yin, 2018). The focus for the study was to discover the specific innovative strategies being used by rural business owners; therefore, a qualitative, exploratory approach was most appropriate. Quantitative methods are used by researchers to test hypotheses and to gather, analyze, and interpret numerical data about variables' characteristics and relationships (Merriam & Grenier, 2019). The quantitative method did not apply to this study as there were no theories being tested, and there were no statistical relationships being examined. Mixed methods research combines quantitative and qualitative research methods (Nastasi, 2019). The mixed method was not appropriate for this study as including analysis of variables' characteristics or relationships through hypothesis testing was not necessary for addressing this study's purpose.

The qualitative, multiple case study was selected as the design for the study. Narrative, phenomenology, or ethnography designs were considered but were not chosen. The case study approach allows for the exploration of a phenomenon being studied (Stake, 2018; Yin, 2018). A case study is appropriate to explore phenomena in a context-rich setting when there are only loose structures guiding the collection (Merriam & Grenier, 2019). The narrative approach is a resource-intensive design, requiring extended periods to conduct more in-depth exploration with a focus of capturing and analyzing

personal stories, rather than identifying and exploring objective data of the phenomenon (Merriam & Grenier, 2019). The narrative approach was not appropriate for this study as I was studying the phenomenon itself rather than the content and structure of the participant's experiences of that phenomenon through their personal stories. Phenomenology is used to gain insights into the perceived meaning of lived experiences, focusing on the individual personal meanings of experiencing a phenomenon (Beck, 2020). However, the study's purpose was to identify and describe human actions and strategies rather than individual meaning, and therefore phenomenology was not an appropriate design. Ethnographic researchers focus on capturing data related to the broad and encompassing social and cultural dimensions of human activity (Merriam & Tisdell, 2016). The ethnography design provides a rich, detailed description of human life within a cultural context (Merriam & Tisdell, 2016). The complexity and depth of ethnographic designs require an in-depth study of the human activity through prolonged contact (Fetterman, 2019), which was not aligned with the study's focus.

Research Question

The research question for this doctoral study was: How do rural small business owners develop and utilize innovation strategies to increase profitability?

Interview Questions

1. What strategies do you use to increase your organization's innovation for increasing profitability?
2. How do you measure the effectiveness of your innovation strategies?

3. What resources have you used for your innovations (including social, natural, made)?
4. How have you used these resources to innovate new or improved products, processes, or practices?
5. Based upon your experiences, how have those innovations affected your business' performance?
6. How do you ensure that you have time to generate new ideas and follow through on them?
7. What additional information can you provide to help me understand your strategies to innovate for increasing profitability?

Conceptual Framework

This research was driven by a composite conceptual framework of rural capitals augmented by innovation work behaviors. The RCF introduced by Castle (1998) provided a platform for exploring how rural businesses utilize nontraditional forms of capital, such as social, natural, and physical, in their businesses. Also, since innovative actions are being studied as a force for rural business owners successfully converting these nontraditional forms of capital, the innovation work behaviors (IWB) framework created by Scott and Bruce (1994, 1998) was selected to frame the exploration of specific innovative behaviors.

The RCF (Castle, 1998) links rural business success to the conversion of available resources other than direct financial capital, namely the unique social, physical, and natural capital available to the rural business owner. Castle (1998) suggested that while

financial capital is less prevalent, rural businesses are uniquely positioned in a capital-rich environment unavailable to their urban counterparts. When business owners can shift their focus and creatively utilize the resources in their environment, they can overcome market barriers and solve the unique challenges facing rural businesses (Bosworth & Turner, 2017). The creative ability to convert such capital sources can be linked to innovation, measured by the creation and implementation and success of new processes or products.

While innovation has been measured historically simply as either a patent or new product in the market, a modern understanding encompasses the larger human systems, activities, and the value created by such products, which are all inextricably linked to the whole of innovation. Despite this emerging, expanded view of innovation, there is often a lack of understanding of the antecedents of innovation (Muchiri et al., 2020). Van de Ven (1986) introduced his innovation theory as a practical framework for understanding both the behaviors as well as the context in which innovation occurs. This shift in perspective allows for the exploration and understanding of how business owners can reliably understand and reproduce successful innovation processes. Starting with the phenomenon of a new idea, Van de Ven conceptualized the four stages of innovation management, notably (a) managing attention, (b) managing the conversion of the idea into a form, (c) managing the inter-related efforts to realize the new product or process, and (d) managing the overall culture of innovation (Shanker et al. 2017; Van de Ven, 1986). Therefore, it is expected that using the composite conceptual framework of Castle (1998) and Van de Ven enabled me to identify and explore the innovations strategies rural small business

owners use to develop and implement innovations for improving their business' performance.

Operational Definitions

Micro and Small Enterprise (MSE): A micro-enterprise is an operation with less than 25 employees, and a small business enterprise is characterized by having fewer than 500 employees, as defined by the Small Business Administration's Office of Advocacy (U.S. Small Business Administration [SBA], 2017, 2019).

Rural: Rural is defined as having a population of less than 2,500 including locations rated as 8-9 on the Economic Research Service Rural Continuum Code (USDA Economic Research Service, 2020).

Urban: Urban constitutes an area with a population of more than 2,500 people in locations rated as 1-7 on the Economic Research Service Rural Continuum Code (USDA Economic Research Service, 2020).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions include the unproven beliefs and values a researcher holds to be true (Marshall & Rossman, 2016). Researchers increase the internal validity and the reliability of their study by examining and identifying their assumptions about the research being conducted (Merriam & Tisdell, 2016). I assumed that the qualitative method was appropriate for exploring MSEs' business owners' innovation strategies in rural northern California. This assumption proved sound as the process allowed for the discovery of a rich data set. An exploratory case study was considered appropriate to create the best

results. Additionally, it was assumed that the study participants would understand the nature of the questions, be able to answer them, and would do so honestly. The case study provided in depth data, and the participants were able to understand and successfully participate in the process.

Limitations

Qualitative research includes multiple limitations. Limitations in qualitative research are any design or conduct that would lower the confidence in the study's findings (Munthe-Kaas et al., 2018). Case studies use nonrandomized selection and small sample sizes, which can create bias and limit the generalizability of the conclusion (Queirós et al., 2017). The sample size for this study was eight MSE businesses. Geographic location limitations caused the sample to be narrowly focused on one area and can lead to cultural or regional bias (Safaei Pour & Rahimi Chamkhani, 2018). Telephonic and video interviews, which were required due to the government's local pandemic restrictions, limited my access to specific in-person effectual data.

The researcher's theoretical position and personality can influence participant responses during the interview process (Merriam & Tisdell, 2016). The purpose of the study, along with information related to the protection of the participants and the researcher's position, was provided in the informed consent form. Additionally, participants were protected from external influences during the interview process to ensure there was no undue influence on their responses.

Delimitations

Delimitations are used by the researcher to set the research boundaries and ensure the research maintains a central focus (Theofanidis & Fountouki, 2019). For this study, the delimitations included the number of employees and the business's geographic location and sample size. These delimitations were used to ensure the integrity of the study's scope and that the study captures the targeted phenomenon of the innovation strategies of rural MSE business owners in northern California. A sample size of eight was appropriate to understand the phenomenon being studied. The geographic area for this study was limited to rural northern California in the United States. The size of the participating businesses matched the micro and small business categories.

Significance of the Study

The unique challenges facing rural businesses are well known, but there is a lack of understanding of how rural businesses can successfully overcome them. This study's findings could enable rural business owners to develop strategies to become successful in addressing the need for innovations for improving business performance for increased revenues and profitability. For effecting general beneficial social change, as small business owners strengthen their abilities to make community contributions, they can support the social and financial resilience of community members through job creation and economic stability through sustaining and increasing communities' tax revenues for benefiting citizens.

A Review of the Professional and Academic Literature

The purpose of this literature review is to provide a framework of relevant theory and historical research related to this study. The theories discussed relate to rural economies, rural capitals, rural MSEs, and innovation behaviors in a business environment. The need to explore the causes of rural decline and the potential solutions to restore rural vibrancy is the focus of economic, agricultural, business, and social scholars alike, and their perspectives are reflected across the theories presented here. These theories are reviewed with MSEs in mind since they represent most of the business efforts in rural areas and are central to the success of rural economies, and by extension, communities.

The definition of a rural area is formed by the overlapping definitions from both the USDA Economic Research Service and the U.S. Census. As such, a rural area is a nonmetro area, with towns with fewer than 2,500, noted as location descriptions rated as 8-9 on the Economic Research Service Rural Continuum Code and include approximately 97% of the geographic United States and 20% of the total population (U.S. Census, 2020; USDA Economic Research Service, 2020). The largest portion of the rural business output is in the manufacturing, retail, and service industries, with agriculture comprising just under 50% (USDA Economic Research Service, 2020). Micro and small businesses constitute the majority of rural firms, where a microbusiness is defined as having less than 10 employees and a small firm is defined as having less than 500 (SBA, 2020; USDA, 2020). Despite a scarcity of external funding support and being challenged by a widely dispersed, unskilled workforce, as well as operating in areas with little to no

broadband infrastructure or supportive government policy, rural businesses often perform better than their urban counterparts (Phillipson et al., 2019; United States Congress, 2018). Research across Europe has examined unique innovation strategies supporting rural firms' performance (Cowie et al., 2019; Deakins & Bensemann, 2019), but research is needed to understand further innovation strategies employed by rural MSEs in the United States.

For this study, I reviewed 154 peer-reviewed journal articles, professional articles, government publications, and books. Working with an estimated graduation date of August 2021, Table 1 shows that a minimum of 78% of publication dates of these sources were on or after 2016, within the expected 5-year span for CAO approval. The databases used to access these sources included ProQuest, Science Direct, EBSCO Host, Springer Nature, Sage Premier, World Scientific, InderScience, Wiley Online, Taylor and Francis Online, Creative Commons, Elsevier, and Emerald Insight.

Table 1

Distribution of Sources

Year of article	Total articles	Percentage of total
Pre 2016	34	22%
2016-2021	120	78%
2016	9	
2017	20	
2018	13	
2019	33	
2020	30	
2021	15	
Total	154	100%

Keywords used for searches included a combination of *small business, small business innovation, rural small business, rural innovation, rural small business*

innovation, innovation, rural innovation, rural v. urban small business, rural v. urban innovation, regional innovation systems, entrepreneurial orientation, entrepreneurial innovation, innovation strategies, innovation process, innovation context, innovation culture, innovation antecedents, innovation path dependence, innovation v. invention, innovation works behavior, rural capitals, rural capitals framework, territorial capital, and *regional capital.*

The organization and headings for this section include Conceptual Frameworks, with subsections for Rural Capitals Framework, Natural and Physical Capitals, Social Capitals, and Capitalizing the Resources, followed by Innovation and Innovation Works Behavior Framework, and Alternate Theories Not Used. The next section includes a review of the literature, organized with the headings of Small Business, Rural Small Business, Innovation with the subsections of Innovation – Human Dynamics and Innovation Works Behavior, Rural Small Business Innovation, and Innovation in MSEs.

Conceptual Frameworks

The following section provides the conceptual frameworks that were used to guide the research and a brief discussion of theoretical frameworks not used. Conceptual frameworks were selected to reflect the research focus of specific innovation strategies employed by business managers of rural MSEs. The research necessitated a combined framework that included rural business phenomena, rural resource utilization, and innovation management activities in MSEs. The rural capitals framework (RCF; Castle, 1998) was selected to represent the unique elements and dynamics of specific rural resources, economy, and businesses. Van de Ven's (1986) innovation framework focuses

on the management aspect of innovation process, which is further supported by the innovation works behavior approach to researching innovation activities within a firm (Messman & Mulder, 2012; Van de Ven & Polley, 1992). Regional and territorial capital frameworks were considered but not selected as they represent macroeconomic theories that attempt to explain the process of businesses transforming local resources for market competitiveness. However, they do not provide a functional framework for researching specific business activities.

Rural Capitals Framework

In Castle's (1998) seminal work, he proposed a unique approach to understanding the rural experience and related opportunities to developing the economic success of rural businesses and communities. When applied, the RCF proposes that the rural business owners' context is viewed with a new lens, one that separates rural business owners from their urban counterparts, by focusing on both the unique rural context as well as non-traditional forms of readily available capitals beyond financial, such as social, natural, created, and human. By taking this approach, new research opportunities become available, namely, how rural businesses can adjust to their unique business environment and capitalize on these resources for business success.

When defining rural businesses for research purposes, it is important to consider the central research question and the application of the findings. This study aimed to shed light on specific strategies, a combination of cognitive processes and discrete actions, that result in innovatively converting local, nontraditional forms of capital to create business success. Castle (1998) theorized that since rural economies occur in locations with other

forms of capital than financial, this results in unique opportunities to create rural products, services, and business ecosystems. Castle's rural specific framework occurs as an economic theory with an overlap in the business, social, and academic spheres.

Castle (1998) underscored that understanding the rural context is a necessary prelude to researching rural businesses. The defining essence of rural life is often distinguished by noting four important dimensions: distance, space, capital, and time (Castle, 1998). While rural spaces are typically vast, population densities are low, leaving a highly dispersed population over great distances. By default, this means that the local population often must travel great distances to work and frequent local businesses. In response to this dispersion, coupled with little to no broadband access, rural communities have developed highly connected social networks, where bridging social capital is the strongest element of those networks (King et al., 2019).

The vast spaces present in the rural landscape are not just simply a challenge but are conversely a strength as well. Unlike their urban counterparts, rural small business owners have greater access to social, natural, and physical resources to create products and services (Bosworth & Turner, 2018; Castle, 1998; Lang & Fink, 2019). Whether it is access to large amounts of land and water, or raw materials such as timber and rock, or the access to secondary physical products such as sawdust and manure, the rural areas are rife with relatively easily converted capitals (Bosworth & Turner, 2018; Castle, 1998). However, Castle (1998) noted that it is critical to understand that agricultural activities are not synonymous with rurality and, in reality, only occupy 50% of rural areas. It is

these same resources and activities that represent half of an important interdependence between rural and urban and well as rural and global.

Rural communities provide much of the food and natural resources to the world and are inversely dependent on the global supply chain for steel and other products that come in the form of machinery, fencing materials, gas, oil, and the necessary components of infrastructure. As an economist, Castle (1998) insisted that rural economies cannot flourish without a deeper understanding of who and what they are, and most importantly, rural economic success depends upon these same communities being self-determined within the framework in interdependence. This naturally leads to the need for both better rural policies and more research to help understand and distinguish rural dynamics.

Natural and Physical Capitals. In addition to high levels of innovation, another advantage that rural small business owners have is access to non-traditional forms of capital or natural resources. At a time when economists were espousing a more granular approach to understanding the relationship between available resources and economic success, Hart (1995) extended the resource-based view of the firm to include the natural resources available to businesses, and Castle (1998) introduced the theory of rural capitals at an intersection of economic and business theory shortly after that. Bosworth and Turner (2018) noted the subtle distinction of the RCF in relationship to the territorial capital framework, where regional capital is considered a critical context to the study of businesses within a specific area. The RCF specifically addresses both the unique but globally pervasive elements of the rural life and the non-financial capitals uniquely available in rural areas, ripe for conversion into successful business outcomes.

Social and Human Capital. Much has been written, across multiple disciplines, about the role of social capital in the rural context, highlighting the unique network of social bonds that help rural communities maintain cohesion and support their survival. Lang and Fink (2019) provided a nuanced and complex model to understand the role of social capital in rural areas. This multi-level framework was developed out of the cross-cultural study of social entrepreneurs in rural Greece and Ireland. An additional advantage, created in response to the heavily dispersed rural population, is that the individuals' daily lives in rural communities are woven together via an extensive and layered social infrastructure and complex social dynamics over a large area. This unique social phenomenon is another form of raw capital that small businesses can leverage in shaping innovative solutions to a myriad of rural challenges (Lang & Fink, 2019; Mohamad & Chin, 2019). Effectively leveraging this social capital is essential to small business success in rural areas and often forms the basis for cooperative innovation amongst multiple business owners within the community (Tregear & Cooper, 2016). Despite the strength and presence of social capital in rural areas, developing a deeper understanding of the complexities and dynamics of social capital in the rural context is a critical step in being able to better leverage it for business advantage.

Examining the complexities of social capital reveals that only specific aspects are stronger in rural communities. However, despite the notion that social capital is stronger in rural areas, Sørensen (2016) suggested that when looking at the distinct types of social capital, namely bonding (intra-community) and bridging (extra-community), rural communities rank higher in bonding capital. King et al. (2019), with a slight difference in

categories, further refined this to include bridging (lateral extra-community), bonding (intra-community), and linking (vertical extra-community) capital, and found that rural firms are strongest similarly, concluding that bonding is the strongest form in rural communities. This distinction is important as it exposes the limitations of rural communities in identifying and accessing resources outside their daily community and their lack of connection to vertical communities, where government and other institutions could provide support. Khan et al. (2020) identified the positive link between effectively utilizing more intangible human capitals such as manager's dominant logic, where managerial capabilities have a direct, positive impact on innovation performance in Chinese SMEs. Both external community-oriented social capital and internal-oriented human capital play critical roles in driving innovative activity in SMEs.

The role of social capital, the network of human relationships and activities, has long been associated with small business success and innovation. Castle's (1998) RCF includes a significant portion on the importance of social capital in the slate of the rural business owners' resources and the successful conversion of local capital to business success. Expanding on his foundational framework, Castle (2002) further refined the notion of social capital. While trust, the expectation of reciprocity, and information exchanges are inherent in social capital dynamics, the multidisciplinary definition must reflect both economic and sociological elements. Castle defined social capital as collective action that, in some way, contributes to the production or consumption of useful goods and services. Cowie et al. (2019) noted that successful innovation requires human, financial, and social capital. Because rural innovation often requires multiple

stakeholders working together throughout the value chain, high degrees of social contact and trust are necessary to foster this process (King et al., 2019). The notion of social capital, as seen through a faceted lens made of communal, business, and economic perspectives, can richly enable business owners to higher levels of success.

Despite the positive label on social capital as a resource, some forms can turn dark and greatly inhibit firm performance. Dark social capital occurs in various forms, depending on what category of social capital is involved (King et al., 2019). When a group or social layer becomes closed, it can cause calcification of social patterns, stagnation of social exchange, and decrease the influx of diverse ideas and members.

Capitalizing on the Resources. In the efforts to restore rural areas, it is critical to focus on how rural small business owners can successfully capitalize on the vast resources available to them. Most scholarly business research and theoretical frameworks have focused on large firms (Hart, 1995), and the scholars whose research has been focused on rural small businesses are descriptive of the rural plight but often lack a targeted focus on how firms are overcoming these challenges (Bosworth & Turner, 2018). Salemink et al. (2017) noted that when broadband was introduced into a rural area, there was not uniform adoption across the firms, noting a need for research to explore the benefits of training and support to ensure alignment with business and family needs, as many of the businesses were being run out of family homes. Jensen et al. (2019) found that despite a greater understanding of the challenges, rural business activities were often forced into informal activities that avoided overbearing taxation and policies and concluded a strong need to explore supportive public policy. Further, newer research has

focused on managing knowledge via strategic intent and how a firm creates a competitive advantage by utilizing knowledge as a resource (Ferreira et al., 2020). Ko et al. (2021), through an examination of 380 firms in Korea, established a further distinction between explorative versus exploitative strategies, where exploratory strategies showed a strong correlation to higher levels of firm innovation over exploitative ones. These results were similar to Ahammad et al.'s (2021) research of Indian firms in international markets. Across the globe and in the United States, there is a need to close the gap in the research focusing on successful strategies for rural business owners and how they can intentionally and effectively convert resources (Wojan & Parker, 2017). When innovation is seen as the result of strategic activities related to resource conversion, related research explores the dynamic relationship between environment, organizational elements, management, and human activities.

Innovation and Innovation Work Behaviors Framework

In a general sense, innovation is a verb and a noun, referring to both the process of creating something new and the result of that process. In Schumpeter's (1934) economic theory, innovation was defined for a business context as creating and implementing new products, processes, and markets. Kanter (1988) further refined and thereby shifted the definition to view innovation as a process with stages, including idea generation, creating new combinations of ideas, and the implementing of those ideas. Kleyson and Street (2001) expanded the stages of an innovative process to include an initial stage of scanning for opportunities and a later stage of championing the idea. Schumpeter accurately highlighted the relationship economic dynamics throughout both

macro and micro levels of innovation and provided a foundation for understanding innovation and the role of innovation in the health of a business and an economy (Ruttan, 2001). Over time, scholars have evolved Schumpeter's work into a more detailed description of the human and managerial elements of innovation and the complex nature of the process of innovation.

While Schumpeter is most well known for being the modern originator of innovation theory, authors from other fields predate and eventually merge into modern theory nearly a century later. Before and parallel to the development of the notion of innovation in economic and business fields, Tarde (1890) and Usher (1957) began both sociological and psychological discourse focusing on insight through the dispersion of the novel idea, product, or process throughout society. While these initial insights predate Schumpeter (1934), they do not make their way into a business theory until the last part of the 20th century (Sundbo, 1998). The transition from broad economic notions to examining discrete human actions and interactions is critical to the study of innovation as an activity rather than an impact of those activities.

Around the mid-20th century, several innovation theories emerged as a direct effort to capture the drivers of innovation at the firm level. Market push theories were examined to understand better how either research, or development efforts pushed innovation into society via a linear, unidirectional process (Greenacre et al., 2012). These market push theories were contrasted with market pull theories, where a large, unmet need in society demanded an innovative solution, and firms then worked to innovate and meet the need. These theories were quickly altered to better represent the non-linear

complexity of innovation on a large scale, adding in information and knowledge flows in continuous feedback loops (Greenacre et al., 2012). Not until the last two decades of the 20th century did theorists begin to examine the granular, human activities at the point of creation.

The exploration of factors that either drive or impede innovation in firms and thus the market opened the door for further analysis of both the conditions and activities that better fostered innovation. The evolutionary and path-dependent theories examined forces that negatively impacted the emergence of innovative outputs and led to the inverse, examining the conditions that support and foster innovation (Thrane et al., 2010). This pivotal moment turned the business academic focus to the psychological, contextual, and process elements underpinning successful innovation at the firm level. Overcoming the limitations of bounded rationality and path-dependent activities, coupled with creating the context that best fosters innovation, encompasses the most recent literature on innovation (Godin, 2001). However, these theories are not all-encompassing but rather reflect only portions of the larger whole of innovation activities.

Emerging theory from the 1990s established a systems theory approach to innovation alongside the notion of removing barriers to innovation. Freeman and Perez (1988) also put forth a taxonomy of innovation, further defining types of innovation which integrated both process and industry contexts. This led to future theories that identified distinct activities and outcomes from incremental, radical, process, and structural forms of innovation (Greenacre et al., 2012). These developments in theory expanded the understanding of innovation beyond the notion of invention and paved the

way for a more holistic understanding which demarcates innovation activities through time and across contexts.

As theories expanded our understanding of innovation activities, attention must be paid in determining the applicability of these theories in micro and small business contexts. While most of the literature on innovation reflects insights and exploration of large firms, the essential process as outlined in the theoretical framework remains, for the most part, transferable to the small and micro-firms (Aryal et al., 2018). Van de Ven (1986) further refined the framework of innovation from a management perspective and put forth the theory that innovation, more than just a new idea, is a complex relationship between ideas, people, and the process of converting those ideas into currency. The innovative management theory identified the essential actions needed to successfully and ongoingly innovate within a system (Van de Ven, 1986). Unlike other frameworks, the framework allowed for the study of innovation, in a large or small firm, by focusing on the core activities rather than the larger system. While this framework does not ignore the relevance of the external and internal systems of the firm, Van de Ven shifted the focus to the management perspective, a shift that resulted in examining innovation at the level of management and employee actions. This shift away from away from the technical industry stages of innovation inherently lead to a business-unit orientation, which led to the essential aspects of innovation which are more easily transferred to smaller firms that operate similarly to business units in larger firms.

Making a shift to a management perspective led to exploring innovation as a human process. In the development of this framework, Van de Ven (1986) considered the

factors that encourage or discourage innovation, including people, interactions, and the overall context. Specifically, he highlighted four areas: a) how to manage human attention, b) how to manage the process, c) balancing the interrelated aspects involved in innovation across the firm, and d) creating a context that is conducive to innovation, at an institutional level, via leadership behaviors. Next, Garud, along with Van de Ven and others (2013) expanded the discussion of innovation to highlight the complex, layered, and dynamic nature of innovation activities, specifically the temporal, and social interactions aspects of the process and the importance of incorporating this complexity into the research framework. Later development in the theory included the examination of operating in an open network environment, noting challenges in role clarity, control, and staffing alignment (Luo, et al., 2018). As noted above, these four areas are relevant at all scales of firm size and transfer well to micro and small-sized firms.

Fundamentally, innovation is a human-centered and driven process, no matter the context where it may occur. Van de Ven (1986) asserted that the nature of innovation is a complex interaction amongst a myriad of variables, including cultural, immediate needs, psychological attachment and passion, social dynamics, and a currency of power. Thus, the framework supports the approach of human-centered and idea development when examining innovation. Launching from this theoretical framework and bringing together the process orientation to innovation by Kanter's (1988) and Messman and Mulder's (2012), the IWB instrument is used to assess and measure innovative behavior in firms. These five areas, generally aligned with Van de Ven's (1986) framework, represent a set of interconnected and dynamic employee behaviors: a) opportunity exploration, b) idea

generation, c) idea promotion, d) idea realization, and e) reflection (Messman & Mulder, 2012). Despite being unidirectional, these stages are dynamic and micro-systems within themselves where each stage achieves a critical step in the process of innovation.

The IWB is flexible in that it can be used with several different research methods while retaining its overall integrity. How the IWB is utilized within a research will be dictated by the design of the research itself, but however it is used, it must overall capture the level of human behavior involved in the following areas: (a) establishing new processes; (b) improving current processes; (c) utilizing new materials, resources, and tools; (d) improving internal and external collaboration; (e) new products or services; and (f) followed by the reflection stage (Messman & Mulder, 2012). Combining IWB with Van de Ven's (1986) framework, the focus was expanded to include how attention is managed throughout the process and the overall context of supportive management behaviors.

Alternate Conceptual Frameworks

Several alternate theories were considered in the pursuit of this study. Similar to RCF, other conceptual frameworks also address economic and business development from regionally bound perspective. The territorial capitals framework was considered due to its focus on regional capital located in the context of the firm's geographic location and access. Resource dependency theory, which looks at business performance as it relates to the firms' ability to effectively acquire and convert capitals, while not directly bounded to the geographically bound capitals surrounding a firm, is like RCF in its approach. Open innovation framework, a recently emerging approach to innovation strategy, was

considered as it relates to innovation practices within the firm and across market communities.

Territorial Capitals Framework

Similar to RCF, territorial capitals framework is both an economic and business approach to the critical and dynamic relationship between firm success and the locally available capital. Camagni and Capello (2009) asserted that firm competitiveness is linked to territorial capital, where a firm's success is tied to the ability to convert geographically nearby resources into competitive products. Capello et al. (2009) further linked this conversion to the critical presence of cognitive knowledge as the mediator to such conversions. As Camagni and Capello (2013) jointly evolved the framework, it moved beyond macro-regional economics to include more reliance on the human factors underpinning the collective coordination required of modern markets. Yet, despite the inclusion of the human behaviors needed for a region to effectively bolster its economy through the effective conversion of local resources, both theoretical frameworks remain macro-economic in that they do not include any aspect of business administration or firm-level resource conversion management (Camagni & Capello, 2013). Additionally, while this theory can be applied to a rural context in a broad sense, as a rural area falls under the definition of a region, it does not identify, address, or consider specific rural phenomena impacting rural MSEs.

Resource Dependency Theory

Resource dependency theory describes the relationship between firm success and available resources but weighted more from an internal perspective of the firm looking

out into the market. Developed initially by Pfeffer and Salanick (1974) bringing together disparate approaches to understanding the firm throughout the 1950s and 1960s, RDT is grounded in sociology, social psychology, and social anthropology, and when connected with management literature, it embodied an open system, macro-perspective of firm activity within the market or region within which it operated (Biermann & Harsch, 2017). Resource dependency theory (RDT) links economic and firm competitiveness to the ability to transform local resources for value and profit (Biermann & Harsch, 2017). The essential thrust of RDT is to realize the value of exploiting the interconnected nature of a firm to other firms within its market, often focused on larger interactions such as mergers and acquisitions.

RDT is most often applied to the macro elements of the firm's relationships within its market, it is decidedly a management theory. Pfeffer and Salanick's (1974) seminal work explored a more organizational dimension to the firm's market relationships, shifting the focus to how firms and sub-units within firms capitalized on local resources. This focus then expanded to include resource exchanges across networks and organizational partnerships (Aldrich & Whetten, 1984). Miruchi and Yoo (2017) described RDT as similar to social exchange theory, but on a macro level. RDT was not advanced much until new research was conducted in the 2000s, but despite this resurgence, the overall thrust of RDT remains focused on identifying and managing resource dependency in large firms (Hillman et al., 2009). RDT was not selected as a research framework for this study as it does not provide for a clear

research focus in relationship to the actual transformation of resources for value, not how management constructs support such a transformation.

Open Innovation Framework

Open innovation framework (Chesbrough, 2003) takes a broader innovation systems approach but was not selected for this study as it does not provide for the exploration of specific management of innovation activities. Created by Chesbrough (2003), open innovation framework is a modern emergence of thought where innovation and the organization are seen, not as a traditional vertical and somewhat closed system, but rather as an architecture of information flow both within and external to the boundaries of the firm. The focus of the framework is in how to best manage the flow and exchange of information in a boundary-spanning context (Chesbrough et al., 2006). Most of the research and theoretical development related to open innovation has been focused on large firms, and the development of ideas, products and distribution channels, which can pose challenges for SMEs where the resources for these organizational activities may be non-existent or severely limited (Lee et al., 2010). While networking and collaborating are essential for SMEs to overcome these limitations, they can pose other challenges in proprietary protection, in some cases forcing a compromise of ownership and the ability to commercialize the innovation for value.

Open innovation theory challenged closed or bounded notions of the firm yet did not adequately address the impact of discarding these organizational protections initially. Later, Chesbrough (2012) addressed boundary concerns to include both the need for attention to proprietary areas such as research and development activities and intellectual

property protection, and a balance for ensuring flow of information and knowledge across organizations. Chesbrough also acknowledged the different cultural contexts for employment, where in the U.S. workers are far more mobile, and supportive of the flow of creative ideas across firms, and Japan, where most workers remain at one firm for their entire career. With these later additions to open innovation theory, many concerns were addressed, but smaller firms were still not considered.

Open innovation is a framework best suited to large firms in markets with many competitive actors. Additionally, as an emerging framework, supporting research both in general and at the SME level is scarce (Gassman et al., 2010). Kirschbaum (2005) characterized open innovation as a culture not a process, and as such there is little notion of how to operationalize individual innovation activities. As such, while open innovation can support larger organizational research and management strategies as it takes a broader innovation systems approach and includes the framework for converting knowledge as a resource underpinning innovation, it was not selected since it does not provide for the exploration of specific innovation activities either at the managerial or employee levels.

Rural Small Businesses

When researching rural small businesses, it is important to distinguish what constitutes a *rural business* both in defining the geographic nature of that rurality as well as what business activities can be deemed rural. Where the U.S. Census (2016) and the U.S.D.A. (2019) defined rural geography in slightly different ways, the overlapping parameters include open areas, small, dispersed populations under 2,500 people.

Additionally, the definition of rural typically excludes towns within proximity to metro areas. While those parameters are relatively straightforward, defining the rural business is a bit more convoluted.

Most of the literature on small businesses overwhelmingly reflects an examination of these firms in an urban context. However, rural small businesses differ from their urban counterparts in critical ways (Wojan & Parker, 2017). What defines rurality in the context of a business has been addressed by Bosworth and Turner (2018) and is identified in the three critical dimensions of serving a rural area, rurally derived products, derived from local capitals. Location and access to non-traditional forms of capital alone are not enough to define a rural business. To create further clarity, Bosworth and Turner refined the definition by including an examination of the level of embeddedness within the rural area by ascertaining whether the services are provided to the rural area and whether they are rural products, actually derived from local capitals. Each of these characteristics allows for a definition of a rural business that relates to the local rural economy and resources and thus can be defined as "rural" (Bosworth & Turner, 2018). This definition provides for an appropriate link to businesses that successfully operate within the limitations or challenges of a rural context. A business that does not fit the definition would be one that, for example, locates a building in a rural area, but does not employ residents, does not utilize local natural capital, nor does it provide any products to the local population.

Further, rural small businesses are known to face unique challenges, distinguishing their needs and opportunities from their urban rivals. Babalola and

Agbenyegah (2016) noted that several aspects of South African micro businesses were negatively impacted by lack of infrastructure, lack of financial resources, lack of business skills amongst managers and little to no external support or access to training. Bosworth and Turner (2018) similarly identified lack of broadband, lack of external financial resources, and lack of an available skilled workforce. Overall, the four most pervasive challenges rural business owners encountered were limited or no financial support, limited or no access to broadband, an unskilled workforce that is widely dispersed across geographical areas, and a paucity of business knowledge and skills (Salemink et al., 2017; U.S. Congress, Joint Economic Committee Democrats, U.S. Senator Martin Heinrich, 2018; Ziliak, 2019). Despite knowing these challenges, there is little in the way of solution-focused knowledge being generated for rural business owners.

While it is easy to see what is lacking in the rural landscape, it is equally as important to see the advantages. These same people, often branded as less sophisticated than their urban counterparts, are keenly innovative and hard-working and have successfully overcome surmounting odds by leveraging their unique resources (Aryal et al., 2018; Lang & Fink, 2019). Additionally, rural small business owners have better success rates, and are often better at retaining employees (Phillipson et al., 2019). Unfortunately, these results are far from uniform, and often rural small businesses' performance patterns range from minimal or mediocre levels to more robust, depending on the region (Letterieri, 2019). Despite the low numbers of studies, the research does reflect a wide net of potential factors leading to varying levels of business performance including contextual challenges and overcoming these challenges. Garcia-Cortijo et al

(2021) studied rural small businesses in the south of Spain and concluded that internal factors carried the most weight in determining innovation, with regional factors being important but impacting innovation with less significance. Studies have shown positive correlation between firm performance and innovation, social capital, networks, embeddedness, and knowledge or skill development (Agbenyegah, 2020; Agbenyegah et al, 2019; Greenberg et al., 2018). Considering the research findings, successful performance for rural small business owners then is a multi-factored dynamic. As such, it is important to consider regional elements in research, policy, and support.

Research, policy, government support, as well as each unique business owner's skills and knowledge all interact to support or undermine business performance in every area where related research has been conducted. Across the globe, these factors seem consistent, being reported in India, where rural entrepreneurial activities were limited by lack of capital, lack of skilled workforce, lack of ability or knowledge in converting resources, and a lack of business skills (Sequeira, 2020). In Great Britain, the lack of skilled workforce, excessive taxation, restrictive rural regulations, lack of financing were reported as prevalent challenges along with lack of digital broadband (Phillip & Williams, 2019; Phillipson et al., 2019). Yet, overcoming these contextual or local challenges often comes back to the ability of small business owners to innovate. Despite the well-established challenges, the owner's ability to innovate related to other key factors directly under the control and influence of the rural small business owner, that contribute to their success. Access to localized capital (Yu & Artz, 2019) is highly positively correlated with rural business owner success. Agbenyegah's (2018) study of demographic

variables correlated with rural small business owner-managers' success provided mixed results, with some positive links between age and education. Training and role-modelling were also found to positively mediate rural business performance in Agbenyegah's (2020) further studies. In contrast, Plotnikova et al. (2016) found stronger correlations in these areas. Despite the persistent nature of the challenges facing rural business owners across the globe, firm success is heavily influenced by internal actions and strategies that can foster innovation and solution building.

Innovation

The modern historical discussion of innovation weaves together academic and historical events spanning economics, business, sociology, psychology, sciences, and artistic spheres: innovation is not bounded to business and economics alone but can be seen across the whole of human activities. To distinguish the business application of innovation requires the bringing together a complex interplay of forces, which necessarily include aspects of individual psychology, sociology, economics, market conditions, as well as an understanding of complexity dynamics and systems (Sheng, 2017; Sundbo, 1988). But in doing so, the notion of innovation becomes unwieldy, and most scholars must focus on an aspect of innovation to be effective in their endeavors.

As noted, innovation is a complex interplay of factors, actions, and resources. Schumpeter (1934) advanced the notion of the meta-role that innovation plays in a robust economy and sparked a modern conversation about the importance of innovation at the macro level driven by what could occur at the local or individual firm level. The assumption underpinning Schumpeter's claim is that innovation impacts a whole

ecosystem: from creation, spreading throughout the firm, the market, society, and economies. Shifting to a micro-level focus, innovation is seen to occur at the point where people and firms directly interact with their daily environment (Greenacre et al., 2012). The regulatory environment can have a significant positive or negative impact on a firm's innovation performance. While a strong regulatory framework has been shown to negatively impact firm innovation, when coupled with voluntary participation in seeking regulation compliance, local regulations can have a positive impact (Jiang et al., 2021; Zhou et al., 2021). Mukiza and Kansheba (2020) established that innovation plays a reciprocal relationship within an ecosystem, where a firm's innovation activities create a relationship where resources are better utilized, furthering additional firm success and innovation. While broader notions of stakeholder engagement are critical in understanding and managing the innovation ecosystem, the act of innovating still is understood to occur at the point of human behavior (Leonidou et al., 2020). The examination of the micro-level dynamics is at the core of a business management approach to innovation research.

At the intersection of the macro-economic and the micro-process aspects of innovation lies the pivotal point where innovation is happening in a way that capitalizes on specific resources, whether they be natural, social, or information based. Research of this intersection requires being grounded in both regional and resource-based innovation activities as well as human and process management innovation activities (van de Ven, 1986). External resource frameworks, such as Castle's (1998) RCF which includes both material and social resources available in rural areas, creates a focused external context

for the firm's internal innovation process and outputs, whether they be process, product, or structural innovations.

Innovation research that focuses on the firm must necessarily or primarily focus on the micro-level actions, examining innovation at the point of the connected human activities bounded by the firm itself, but can also include the organizational context as well as how those activities interact within the market dynamic. In a study of large tech firms in the United States, a strong innovation capacity was linked to organizational agility and performance in the market (Ravichandran, 2018). Gemunden et al. (2018) found strong evidence supporting project-oriented structure and innovation activities. Taking a different approach, but mirroring similar attributes studied by Gemunden et al., Sheng (2017) brought together the notions of sensemaking and dynamic capabilities, particularly related to knowledge systems and mental models to establish a better understanding of the complex nature of innovation activities within the firm. More broadly, Ortt and van der Duin (2008) found that a contextual approach to innovation management was the most effective in the long term. Mostly, firm innovation research can be loosely categorized and measured into several academic frames: the product, the process, or the context, which includes the psychological and behavioral aspects of human dynamics (Bäckström & Bengtsson, 2019; van de Ven, 1986). Additionally, addressing the management of innovation may include an examination of product innovations as an outcome, but it primarily examines how the human dynamics occurred for the innovation to become a reality.

Innovation-Human Dynamics

One facet to understanding general innovation in firms is to focus on human dynamics such as leadership, management activities, interpersonal interactions, and relationships. Complex dynamics studied by Friedman and Carmeli (2018) found strong correlation between relational connectivity amongst employees and leadership, defined as openness and generativity, to small firm innovation. Najar and Dhaouadi (2020) came to similar conclusion when examining the role of the CEO's level of openness and entrepreneurial orientation to innovation. Chater and Loewenstein (2016) that an individual's drive for sense-making, when positively managed and supported leads to improved innovation activities. But focusing on the elements or the outcome of these dynamics provides a two-dimensional picture of the dynamic. Teece et al. (2016) argue that the complexity of firm agility and innovation capability must be reflected in the theoretical models to best capture and manage the phenomenon. Managing deep uncertainty in volatile markets requires individual agility to create organizational agility and innovation. Such notions as sense-making, sensing, social and managerial capital, and cognitive capabilities all play a critical role in the ability to orchestrate and re-deploy resources to the best innovative outcome (Teece et al., 2016: Van de Wetering et al., 2017). Grounded in systems theory, innovation is understood and managed as a dynamic firm capability.

Individual attributes, skill development, and knowledge management provide a distinct view of innovation as well. Rasheed et al. (2020) successfully linked successful innovation and high performance with the support of employee voices in the workplace

across Pakistani firms. Usai et al. (2020) in a broad study of Eurostat data, positively linked individual psychological attributes of happiness and creativity, representing factors of entrepreneurial spirit, with increased innovation and intellectual capital. Dessie and Ademe (2017) studied 146 Ethiopian firms and found a strong relationship between education and training focused on developing creativity and small firm innovation. Similarly, Shehzad et al. (2020) found a significant causal relationship between knowledge-oriented leadership and open innovation in a survey of over 300 Pakistani pharmaceutical and health sector employees. Iqbal et al. (2020) also reported a strong relationship between knowledge management and innovative capabilities of the firm. Adding a unique perspective, Shujahat et al. (2019) focused on individual worker productivity, finding that higher productivity mediated knowledge management and innovation, but not knowledge sharing. Thus, innovation strategies that include managing the individual human experience and productivity are positively correlated to improved innovation overall.

Examining the collective aspects of human interactions is also critical to understanding successful innovation. The OECD has done extensive research into innovation in rural SMEs via the LEADERS Programme, and Lorenz and Potter (2019) looked at the accumulated data from the program and found that SMEs with a learning organizational culture, dominated by self-directed tasks, observed a high prevalence of knowledge exchange between staff and leaders, as well as performance incentives that were more likely to bring new products to market which contributed to better economies overall. Yan and Yan (2016), in a study of 211 small U.S. firms and expanding research

focus to include both individual and collective entrepreneurial behaviors, found that both behaviors together had a positive impact on innovation. Additionally, the results of the study showed that open communication and participatory decision making positively mediated this relationship. Conversely, autocratic leadership with central decision making had a negative correlation to innovation, collaboration, and communication. In the last 15 years, the research focus has included strategic behavior as a context for firm innovation (Edwards et al., 2005). Strategic entrepreneurship and entrepreneurial orientation, noted as scanning and openness to new ideas, supporting creativity and converting innovation into firm value are strongly linked to superior firm performance (Arokodare et al., 2020). In contrast, Yaskun and Sudarmiatin (2021) found a strong correlation between entrepreneurial orientation and firm performance in Javanese restaurants, but market orientation had a stronger impact on product innovation. Harel et al. (2020) were able to show strong correlation between innovative culture which contributes most strongly to product and process innovation across Israeli firms. Additionally, relational-psychological leadership strategies were positively related to employee innovation in a study of 295 employees across Indonesian firms (Arsawan et al., 2020). Managerial behaviors necessarily mut focus on establishing open, positive interactions, opportunities for risk-taking via trust in the hierarchy, and must ensure the flow of knowledge through communication channels.

The role of how leadership impacts innovation activities has been well studied. Transformational leadership was positively linked to internal innovation and sector innovation in Iraqi higher education institutions (Abdullatif & Jaleel, 2021).

Entrepreneurial leadership was determined to have a strong positive impact on all aspects of the innovation process in a study of Indonesian firms in the financial sector (Fontana & Musa, 2017). Charismatic leadership was found to have a significant impact on innovation outcomes, but only when there was high task-interdependence, across 133 Spanish banks (Le Blanc et al., 2021). Shehzad et al. (2020) found a strong link between knowledge leadership and open innovation practices. Darvapanah et al. (2020) established that the leader's worldview, whether mindfulness, entrepreneurial or networked in nature, had significant impact on organizational innovation. While these studies show that leadership plays an important and powerful role in encouraging innovation, there is a broad frame as to how that can occur, where attributes such as openness, knowledge sharing, and fostering interdependence are more particularly impactful than one specific leadership style.

While leadership studies show strong relationships between leading and innovation, it is less about the leader and more about culture and knowledge sharing being strengthened through leadership behaviors and skill development. Taking an ambidextrous knowledge management approach, to include breadth and depth, has significant impact on a firm's innovation performance among large companies in China (Wang et al., 2020). Whereas Aliasghar et al. (2020) found that SMEs operating in extreme environments were positively impacted in the area of process innovation by breadth, but not depth, of knowledge. In the Pakistani telecom industry, Mahmood and Shafaat (2020) found strong correlation between supportive organizational culture, knowledge sharing and innovative behavior as well. Additionally, training and

development mediated knowledge sharing. Kim (2020) identified strong co-worker support dramatically increased knowledge exploitation in a linear relationship. Haddad et al, (2019) went deeper to identify aspects of cultivating supportive culture to include idea identification and reinforcing the relationship with customers as critical for innovation. In a study of two firms totaling over 320 employees, Echebiri et al. (2020) established a strong link between structural and psychological empowerment and employee driven innovation. Similarly, Afriyie et al. (2020) strongly correlated structural empowerment in the form of knowledge sharing and leadership to innovative behaviors amongst the employees of Indian firms. Asbari et al. (2021) found the same strong correlation between psychological and relational capital between leaders and female workers' creativity and innovation. Establishing an open, receptive climate for innovation, where information and knowledge flow in all directions is supported by training and development strongly correlates to fostering firm innovation, with notions that customer centric focused cultures are stronger innovators.

In contrast, collaboration has shown inconsistent results in the literature. In a meta-analysis of the mediating role of collaboration to innovation in small firms across China, India, Thailand, Brazil, and Nigeria found inconsistent results (Gao et al., 2019). China, Brazil, and Indonesian firms indicated the role of collaboration was negligible but was found to be a positive mediator in Thailand and Nigeria. Gonzalez-Benito et al. (2016) refined the understanding of collaboration between channel versus consulting collaboration. In their study of Spanish firms, small firms were more likely to use channel collaboration, engaging support through customers, suppliers, and competitors. In

contrast, large firms were more likely to engage in consultative collaboration. The key to understanding the conditions that foster innovation, whether through individual or collective behavior are integral to ensuring the flow of creativity, knowledge, collaboration, and participation.

Looking more broadly, to the relationship of innovation and firm performance and external exchange, brings another layer of understanding of the role and impact of innovation. Studying the exchange between internal and external actors, Ofem et al. (2020) showed that 98 firms, in the rural area of Eastern Kentucky in the United States, entrepreneurial orientation and regional collaboration fostered innovation and had a positive impact on firm performance as well as the regional economy. Buciuni and Pisano (2021), researching four global industries found direct links between a firm's innovation capabilities and cycles and the nature of their regional value chains. The positive impact of innovation spans both across the firm and more broadly across the industry or community.

Innovation Works Behavior

Applying innovation concepts to rural micro and small businesses required bridging the original elements of the framework to a different context of the firm. Much of the current literature and research related to Van de Ven's (1986) theoretical framework along with innovation works behavior framework is founded on examining discrete elements of either the context, psychological factors, or the complex process of the stages related to innovation in large firms (Messman & Mulder's, 2012; Veloso et al., 2021). Studies include testing ideal conditions or dynamics, removal of barriers, or the

access to resources such as knowledge, raw materials, or social capital. While there are a small group of studies on how innovation impacts small businesses, as well as innovation strategy research of larger firms and SMEs, to date there are scant reports of research into the innovation strategies of rural, micro and small business owners.

Innovation activities is not equally distributed across all-sized firms. In Piphop's (2020) study of Malaysian 400 SMEs, IWB was strongly corelated to improved business performance and specifically the strongest correlated aspects of employee behaviors were creativity, proactive behaviors, and opportunity exploration. In a study of 260 Malaysian employees across MSEs the researchers found a strong correlation between organizational learning and work environment, with high levels of innovative output for subjects who engaged in innovative work behaviors (Awang et al., 2014). Of note, manager's knowledge-hiding negatively impacted employee IWB especially when supervisor and employee were both from the local culture (Arain et al., 2020). Additionally, the authors noted that innovative behaviors were more prevalent in small enterprises and significantly lower in micro enterprises. Context, size, and internal actions all play a part in determining the level and effectiveness of innovation.

Emerging research indicates a complex interplay between IWB, organizational climate, and innovation output. Carlucci et al. (2019) surveyed 560 employees across a large Italian healthcare organization in an examination of organizational climate and IWB similarly found that an organizational climate open to innovation partially mediated the relationship between organizational climate and IWB. In a study of Pakistani banking firms, Aziz and Jahan (2021) found that weaker organizational climate does not mediate

IWB. Expanding out from organizational climate to include information sharing and training and development activities that foster innovation behaviors, Bos-Nehles and Veenendaal (2019) further affirmed that all positively mediated IWB. Of note, they also found that compensation negatively mediated IWB. In a study of Turkish tech firms, established a link between positive climate innovation and successful innovative work behaviors, namely providing adequate resources such as time and fostering circumstances of idea generation, promotion, and realization (Onhon (2019). These results further enhance the importance of a supportive climate in general, but also take a more granular approach to include the structural opportunities as well as the psychological elements of interactions.

Psychological elements that support IWB, such as the risk-taking necessary for innovation, are important to distinguish and manage. Bundtzen and Hinrichs (2021) conducted a meta-analysis and in-depth interview in support of the assertion that psychological safety is a necessary precursor to risk-taking behavior, especially for learning through errors. Masood and Afsar (2017) conducted a survey of 587 nurses and 164 physicians in a Pakistani hospital and identified a strong positive correlation between transformational leadership and IWB, specifically the psychological empowerment that fostered trust and the open exchange of information and knowledge. In another Pakistani study, Javed et al. (2019) established the link between inclusive leadership supporting IWB, across textile firms, by creating an environment of psychological safety. Yuhong et al. (2021), studying 630 dyads across 13 Chinese organizations, showed a strong link between an employee's proactive behavior in a supportive context and innovation

performance in the firm overall. As seen in these studies, innovation is woven through with emotional, relational, and intellectual risk-taking behaviors, all which are supported through fostering psychological safety across the organization and amongst various levels of power. Creating psychological safety warrants further examination ot a granular level to better understand how to effectively manage to that intended outcome.

Encouraging innovative behavior through management action is strongly supported in the research and further, has been linked to overall firm performance. Shanker et al. (2017) in a study of 202 Malaysian managers, established that IWB plays a positive mediating role between organizational climate and firm performance. Transformational leadership in CEOs was found to have a positive impact on firm innovation, particularly in the exploitation phase, whereas innovation climate was found to be more impactful in the exploration phase across 215 U.S. organizations (Zuraik & Kelly, 2019). Karatepe et al. (2020) also offered research results from a firm in Palestine in support of the connection between a work climate and servant leadership which, fosters creativity and innovative work behaviors. In cultivating trust, innovative behavior was positively impacted by internal processes of justice (Lin & Shin, 2021). From an executive or strategic level, leadership and climate are powerful factors in fostering innovation. Mishra et al. (2019) provided insight into the strong mediating relationship between psychological capital and IWB, particularly noting that work-family and manager-worker relationships played a large role in encouraging innovation behavior. Taken together, these individual studies open up the need for further examination that explores how IWB is both impacted by and impacts organizational climate and the

critical psychological elements with the culture, management behaviors and innovation performance.

When examining the dark aspects of human behavior as they relate to innovation process a few studies show the importance of organization culture and management practices. Taking a systemic or cultural perspective, Ferreira et al (2020) examined the role of innovation failure with the organizational learning system related to innovation. Ferreira et al (2020) were able to find strong correlation between an organization's inability to respond to failure with a positive frame, thwarting organizational learning, and a lack of innovation over time. Kim and Park (2017) found a strong positive correlation between procedural justice within the firm and IWB as well as employee engagement. Davarpanah et al. (2021) took a unique approach in their study of the impact of the leader's worldview on innovation and entrepreneurial orientation, finding that there was a significant link between a leaders' openness to individual and group innovative behavior, The correlations seen when constructively managing failure and negative behaviors indicate that the steps of IWB must be understood within the context of the organization's capacity for learning and knowledge development, as well as a supportive firm culture, including the management of the positive and darker aspects of human behavior.

Small Business Innovation

While much has been published regarding innovation in a large corporate setting, to support successful innovation for small businesses, it is critical to understand innovation within the context of small business operations. Global innovation studies

encompass a wide range of research paths, including the impact of innovation on firm performance, the nature of innovation, and the precursors and contexts where innovation thrives. As such, the academic catalog of studies covering innovation in small businesses has breadth, but not always depth. A growing body of data has given credence to the differences that innovation takes in the context of small businesses, but also, the data shows areas of overlap.

Research focused on small firms provides a more relevant discussion of the context of innovation where the owner may also be the operator, or there may be only a handful of people working in a multitude of roles. In a study of 180 entrepreneurs in the Ji Ling province of China, Yu et al. (2020) showed that both an orientation toward optimism and strength of belief had a positive, separate, and exclusive mediating effect on innovation. The concepts of entrepreneur and small business owners are often used interchangeably in the literature, leading to confusion. Plotnikova et al. (2016) distinguished between a small business owner and the more integrated role of a self-employed small business owner, noting the importance of the hands-on role a self-employed owner plays in the daily operations of the business, rather than a simple financial investment. Masurel (2019) defined the entrepreneur as a small business owner-manager to indicate the level of involvement in daily innovative activity. In much of the literature, entrepreneurship is the sole purview of small business owners and expressed as interchangeable labels (Ribeiro-Soriano, 2017). Still, entrepreneurship includes high levels of innovation within its definition, which is not the case for the more general

definition of a small business owner (Robinson, 2019). Thus, an entrepreneur is a term more indicative of an innovative small business owner-manager.

The common occurrence in smaller firms of the manager and owner roles being combined into one coupled with the lack of capital, and higher vulnerability to market volatility, small firms may handle risk differently than their larger counterparts. Small firms have been found to be willing to take on higher risk, but not necessarily seeing higher innovation because of it (Marom et al., 2019). Although Marom et al. found small firms provide a significant amount of radical innovation, typically in the technology space, other studies show that small firm innovation tends to be incremental in nature (Maldonado-Guzman et al., 2018). While risk-taking behavior can be highly beneficial for small firms, it is not consistently present, as the experience of vulnerability from having less infrastructure, capital, and staff may inhibit the willingness or ability to accurately assess and execute high-risk actions. Innovation, and thus firm performance, is inhibited by the absence of risk-taking behavior.

Small firms may not always be aware of, understand, or intentionally strategize toward innovation in their business activities. This lack of awareness may inhibit proactive management of innovation. Taneja et al. (2016) proposed a model of strategic innovation for small businesses, where strategy is driven by five essential factors: supportive culture; supportive interactions with suppliers and customers; innovation capabilities such as resources, skills, and technology; fostering cooperation and collaboration; and passion for creating and innovating. In a study of over 200 small business owners in Israel, despite the finding that 95% were found to be engaging in

innovation, most did not identify their actions as innovative behaviors (Harel et al., 2020). In a review of the recent literature, Saunila (2019) found that when small businesses were aware of their innovation, it was perceived as either a process or a product, but mostly as a product, showing a lack of depth of understanding to the complex elements of innovation. A Paraguay study of small business culture and innovation (Sanchez-Baez et al., 2019) established strong links between adhocratic and market cultures and all types of innovation, and only a moderate relationship between hierarchical culture and process innovation. Expanding the firm distinction to family and non-family structures, Jimenez-Jimenez (2020) found that both structures had strong innovation when there was a strong entrepreneurial orientation. Adopting a comprehensive, intentional strategy relating to culture and capabilities such as these studies show, leads to increased performance for small businesses.

Furthering the holistic view of the innovation strategy for small businesses, a focus on culture and behavioral norms are essential. From a larger perspective, culture overall must be supportive of innovation behaviors, as noted by Harel et al. (2020), and Carvalho Proenca and Jimenez Saez (2018). But in this context, culture is only important in that it supports other, innovation-specific conditions, behaviors, and processes. In a study of more than 200 face to face interviews with businesses, Harel et al. (2020a) correlated the link between supportive culture and innovation processes. In parallel, Carvalho Proenca and Jimenez Saez (2018) established a connection between a culture that fostered dynamic innovation capabilities and processes that lead to innovation. Shifting perspective slightly, Cooper et al. (2016) established a more nuanced link

between manager behavior in small firms, specifically establishing a clear strategy, supports innovation via opportunity seeking, but even more so with low managerial intervention on daily activities. In contrast, Cooper at al. found that an entrepreneurial culture fosters innovation under high managerial direction, driven by profit and growth goals. Aspects of culture such as intellectual capital, and entrepreneurial orientation were found to have significant positive impact on innovation process in SMEs in Jordan (Al-Jinini et al., 2019). Thus, culture must support capabilities and essential processes, as well as values that foster openness, opportunity-seeking, and ultimately innovation.

Innovation is critical to business success and small business owners must not only know how to innovate as a systematic and ongoing process, but the owners must also be able to convert their original ideas into reality, same as large firms. Abdul Mohsin et al. (2017) found support in linking strong entrepreneurial competencies in being able to convert local resources via innovation in SMEs. Mimicking SMEs, van de Ven (2018) established a strong relationship between innovation and entrepreneurial behavior, flattened hierarchies, and closeness to the customer. Taking an inverse approach, Reidolf and Graffenberger (2019) traced how local resources crated a path dependent innovation trajectory in rural small firms. When moving from an internal to external focus or vice versa, innovation serves as the bridge between opportunity, resources, need, and solutions.

Focusing on internal structures and dynamics allows a deeper examination of how small firms can foster creativity and innovation across large groups of employees and bureaucratic structures. Providing a managerial perspective, Raasch et al. (2020)

established the importance of managerial awareness of the external environment as a critical link in fostering innovation during turbulent times across Brazilian MSEs. Furthering the established links between culture and innovation in small firms, similar to large firms, knowledge sharing, opportunity and risk scanning, employee empowerment through manager and leader activities are critical. Several critical aspects of a successful innovation strategy relate to the dynamic interactions between stakeholders, both internally and externally. In a survey of 199 SMEs in South Korea, Kim and Shim (2018) established a correlational link between relational strategies, innovation, and firm performance. Those strategies spanned externally with customers and other businesses, and internally with team members and across functions. Similarly, in Italy, Scuotto et al. (2019) found a similar positive correlation between external stakeholder engagement and innovation. Both Kim and Shim (2018), and Scuotto et al. (2019), identified the impact of the relational capital related to knowledge sharing. Santoro (2017) studied the impact of open innovation practices and found that engaging a broader external notion of innovation had a positive impact of small firm performance. Worthy of note is the meta-study conducted by Gao et al. (2019), where the impact of collaboration was shown to vary across cultures, being less impactful in China, Brazil, and Indonesia compared to Nigeria and Thailand. Caution should be applied in assuming that collaboration is de facto the best place to focus one's innovation strategy but should be evaluated for effectiveness.

Innovation in Rural MSEs

Innovation, in general, is a complex interplay of many dynamics and opportunities and drives many rural business owners' solutions. Most of the literature lacks the critical rural context with only a few scholars focused on describing the process, or pragmatic activities, of innovation in small rural firms (Hou, 2017). Some scholars have taken a small business perspective by applying innovation or entrepreneurial theory, often used interchangeably, by looking at the role of innovation in small rural firms' success (Aryal, et al., 2018; Friedman & Carmeli, 2018; Mohamad & Chin, 2019), whereas most of the research is focused on small firms, without the rural context (Weinberger et al., 2017).

Despite the dearth of research of innovation in the rural context, there is strong evidence amongst the available studies, to link innovation with rural firm performance. In a longitudinal study across 10 years in the UK, Blanchard (2017) found that remote rural businesses had higher levels of innovation that their remote counterparts that were less remote. Omri et al. (2015) established strong evidence that innovation is a mediating force on Tunisian rural small business success. Wojan and Parker (2017) authored a report on behalf of the United States Department of Agriculture, which found that rural, non-agricultural small businesses performed at higher levels in which innovation was integrated into the business. Other businesses were functional, just not robustly, when innovation behaviors were low. In parallel, Greenberg et al. (2018) showed a strong link between rural small business success and varying levels and types of embeddedness, including family, closeness to home, and local and national group association, showing

consistency with the notion that innovation is stronger when fostered by social capital and networks.

Since innovation is not necessarily fostered in isolation, small business owners often need to connect with knowledge, information, and support to develop innovative solutions. Phillip and Williams (2019) noted that gaining broadband access did not necessarily translate into increased business success unless business owners were knowledgeable and willing to engage in new ways of doing business. Similarly, research from Hou (2017) and Yin et al. (2019) examined the role of regional innovation systems in Taiwan and rural mainland China that encompass a matrixed system of support, including business innovation, social networks of support for innovation, as well as regional development activities. Throughout the European Union, the Liaison Entre Actions de Development de L'Economic Rurale (LEADERS) program has seen great success in fostering rural businesses through innovation incubators and accelerators (Gamito & Madureira, 2018). Meili and Shearmur (2019) extended urban studies into networks and diversity and found that Swiss rural MSEs benefited from diverse interactions both internally and externally and found strong external networks, all which supported innovation. While such support is often successful, it is mediated by other factors. Even with support, there are clear factors that strengthen a small business owners innovation success.

The business owner's role in a micro or small business is disproportionately impactful, and as such, the owner's skills, education, knowledge, and experience play a critical role in the firm's successful innovation strategies and overall performance. In

Plotnikova et al.'s (2016) correlational study of process innovation amongst self-employed entrepreneurs in rural Spain, they explored three determinants of essential innovation, specifically personal characteristics, business attributes, and characteristics of the external environment. Small business owners who have previous industry experience, an educational background in business, and who cooperate with other firms realize a 7-12% increase in the likelihood of innovative activities. Kmecova and Vokoun (2020) found Czech innovation in small to medium-sized enterprises (SME) are heavily dependent on the external network of resources and that rural enterprises are equivalent in early innovative activities compared to their urban counterparts. Dotzel and Faggian (2019) found significant links between external knowledge sourcing and successful innovation for rural firms. There is an emerging understanding that rural firms' innovation success is heavily linked to directly accessing industry and market knowledge and experience.

When analyzing the rurality of a small business, economic perspectives often view firms through a negative lens, particularly what is lacking and what is challenging. While this is an important step in understanding the context of rurality, it is only one step. Phillipson et al. (2019) noted in their extensive quantitative analysis of rural versus urban small firms in England that often it is these very challenges and limitations that foster higher levels of innovation. This innovation is distinct from urban counterparts in that it mostly represents new products or services to the firm, rather than new to the markets in which they operate. Additionally, rural small firms showed a better profit than their urban counterparts. Thus, rural challenges can be converted into opportunities. Similarly,

Greenberg et al. (2018) demonstrated such innovation-oriented activities in a mixed-methods study comparing rural and urban small businesses in Israel, with the innovative use of social networks more prevalent in rural small firms. While such collective behavior may be influenced by cultural values, it shows a similar outcome to Campbell and Park's (2017) results of small firms in the United States. In Campbell and Park's study, entrepreneurial orientation including innovation as well as social network embeddedness had a significant relationship to a small firms' business outcomes. The limitation of their quantitative study was that while it included rural firms, it did not differentiate between rural and urban firms. Phillipson et al.'s (2019) study of English rural small firms noted the presence of social networks as a resource but did not include it as a dimension of innovation. Yet rural entrepreneurial success, which is founded on innovation, needs more than connectivity, but is best served by funding and knowledge (Newbery et al. 2017). Despite rural small business owners mostly lacking in funding and knowledge, they are often faced with a circular dilemma: they must innovate to be better at innovating.

Transition

The qualitative case study design was the approach that was used for researching innovation strategies of rural small business owners. Both the background of the problem and the specific business problem were presented. Additional sections included were the purpose statement, nature of the study, and conceptual framework. The research question, operational definitions, assumptions, limitations, and the delimitations of the study were defined as well. The review of the academic and professional literature provides a

synthesis of the recent information on innovation and rural small businesses as well as offering a variety of perspectives and strategies to support innovation in rural small businesses. In Section 2, the research project is presented, providing the rationale for the methodology. The role of the researcher, participant selection, and ethical considerations are iterated in Section 2, as well as the strategy to collect, analyze and present findings. In Section 3, I present the findings and discussion of the applications of professional practice, including recommendations for further action and study.

Section 2: The Project

The focus of this study was innovation strategies of rural micro and small business owners. In this section, I describe the project, my role as researcher, and the details of how I conducted ethical research. Specifically included are how I collected, analyzed, and retained the data for the study, ensured overall integrity of the project, and the safety of the participants. Section 3 contains my research findings, a discussion of how these findings may impact business practice, and may contribute to positive social change.

Purpose Statement

The purpose of this qualitative multiple case study was to explore rural business owners' successful innovation strategies to increase profitability. The target population consisted of eight small businesses located in a northern Californian rural area who had been in operation for at least 3 years and had been successful in implementing innovation strategies for improving their business performance. The implications for positive social change include the potential to improve the success rates of small businesses in the rural areas of northern California, supporting stable employment, services, and local economies.

Role of the Researcher

In qualitative research, the role of the researcher is to serve as the primary method of data collection and to extrapolate rich, descriptive data based on the responses of the participants (Yin, 2018). The researcher sets the research strategy, collects, and analyzes data using valid methods (Yin, 2018). Avoiding bias and ensuring objectivity are critical

aspects of the researcher's role. Bias is reduced by the researcher's intentional self-examination of personal bias and conflicts of interest and ensuring specific measures are in place to reduce both (Yin, 2018). Reliability is increased when steps are taken to reduce bias and increase accuracy of the data (Yin, 2018). To ensure high levels of reliability, I approached data collection with a neutral perspective, adhered to the study's protocol, and ensured accurate understanding through participant checking throughout the interview process. Data collection ended with each case when the participant had determined they had no new information to provide relating to the interview questions. Case study results have higher validity if they are derived from multiple sources of data (Yin 2018). After obtaining institutional review board (IRB) approval, I collected data through interviews, organizational documents, and phenomena.

Interviews are the bedrock of case study research and therefore require strong protocols to ensure high levels of validity and reliability. Because interviews are the central form of data collection in a multi-case study, it is important to ensure they are consistent across participants (Yin, 2018). To increase validity, an interview protocol was created, including the standard language used to open, conduct, and close each interview, as well as the follow-up questions that were used to ensure rich descriptive data are captured and that saturation of data is reached. The interview protocol was used (see Appendix) as a basis for conducting interviews. Establishing and following the protocol consistently ensures consistency in the data collection and reduces the possibility of researcher bias in the data collection (Yin, 2018). Additionally, ensuring adherence to the

protocol provides the participants with equal treatment and consistent information, thereby increasing ethical treatment of participants (Yin, 2018).

Ethical issues and data security are paramount concerns in research. Using the *Belmont Report* as reference, three ethical concerns were identified as critical for this study. The three areas of ethical focus include respect for individuals, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). Respect for individuals is established when subjects are given the opportunity to choose what will or will not happen to them (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). Beneficence is achieved when researchers treat the participants in an ethical manner by respecting their decisions, a protecting them from harm, and taking steps to secure their well-being (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). Ensuring fair and unbiased selection of participants ensures that the third goal of justice is achieved (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978).

Additional areas of concern are outlined in the *Belmont Report* and include gaining and documenting informed consent, assessment of and properly conveying any associated risk and benefits for participants and ensuring appropriate selection of subjects. To apply the mechanisms recommended by the *Belmont Report*, I obtained informed consent of all participants as well as ensured all participants understood the process and elements of informed consent and all applicable ethical principles being

applied. As it related to this project, I did not have any direct business relationship with the businesses or the participants. Additionally, I had no previous connection to the specific investigation topic or research area. By adhering to the interview protocol and ethical researcher behaviors, I ensured that my relationship with the organizations and participants did not influence their responses. Also, by checking participant meaning of responses, I increased data accuracy and increased trust with the participants in the interview process.

Participants

Identifying participants for a case study is critical to protecting the integrity of the study itself, and it is necessary to have a preset criterion to ensure the data collected meets the research objectives (Yin, 2018). The criterion relating to a qualitative multicase study must ensure that the participants fit the bounded areas of the study as well as the contextual setting of the research question (Asiamah et al., 2019). To meet the objectives of this study, I interviewed eight small business owners who operated micro or small businesses in a rural area of Northern California, specifically related to their innovation activities and strategies. The criteria for selection were outlined in the informed consent form and included (a) being a currently operating business with fewer than 50 employees, in business for at least 3 years, (b) being located in the specified rural region located in Northern California, and (c) being a business owner who was willing to participating in the study.

As a community member and business owner adjacent to the geographic area, I relied on my direct and indirect social network of local business owners, in addition to

local business directories, to connect with potential participants. To avoid personal bias and conflict of interest, close colleagues, friends, and family were not eligible to participate. Once I had identified potential participants, I contacted the business owners directly to discuss the opportunity to participate in the study. Eligible business owners indicated an interest and were informed, via video or telephone call, the parameters and purpose of the study, eligibility, and participation requirements. They were also provided an opportunity to have any questions answered or concerns addressed. Additionally, during this call, I established the timeframe; their role; their right to answer none, some, or all of the questions; the intended outcomes of the study; confidentiality of participation; and data privacy. As they chose to participate, I obtained their informed consent via their review, completion, and return of the informed consent form.

Due care and consideration must be taken in assessing and managing the impact of the process when working with case study participants (Yin, 2018). The interview process is by nature invasive to the participant, and courtesy must be extended in timing and location of the interview (Merriam & Grenier, 2019). To facilitate participation that results in honest, comprehensive answers, and support the resolution of any concerns throughout the process, it is essential to cultivate rapport and a positive working relationship (McGrath et al., 2019). I employed a friendly but neutral, even-toned demeanor and communication style as well as relationship-building conversations to help develop a strong rapport with the participants, as well as communicated my availability to answer questions or address any concerns at throughout the entire process.

Research Method and Design

Research Method

In regard to determining an appropriate research method, qualitative, quantitative, and mixed methods were considered. I used the qualitative method. Qualitative research is intended to serve as an exploration of a phenomenon of human dynamics, often focusing on social groups or organizations (Yin, 2018). The overall intention of the qualitative method is to explore phenomena within a bounded system and context, where the object of study is tied to the specific context and may not be well understood, allowing for a richer and deeper understanding (Yin, 2018). Additionally, a qualitative study systematically explores how people, communities, and organizations experience, organize, and develop meanings related to the phenomenon, where those elements may not be well known prior to conducting the study and may shift as the study progresses (Aspers & Corte, 2019). The qualitative method of research was applied to this study because the research question can only be addressed through an exploration of micro and small business owners' innovation strategies in a specific rural context. The qualitative method further supports a deeper and richer description, and, thus, understanding of the behaviors, beliefs, and outcomes of the specific innovation strategies. The quantitative method of research is used to compare and measure the relationships or differences among preset variables, specifically where the definition and boundaries of those variables do not change (Aspers & Corte, 2019). Because the research question of this study was to explore the phenomenon, the quantitative method was not an appropriate method. Similarly, a mixed method approach, which combines both qualitative and

quantitative methods, requires the inclusion of discrete variables that can be measured and compared across various contexts. This study did not involve measurable variables and thus the mixed-methods approach was not appropriate.

Research Design

Several designs were considered for this study: case study, ethnography, and phenomenology. A case study design was used to answer the research question of this study. Allowing for broad exploration of the phenomenon being studied, researchers use a case study to explore phenomena in a context-rich setting (Stake, 2018; Yin, 2018). Case studies are appropriate when the boundaries of the phenomenon are less defined (Merriam & Grenier, 2019). Case studies are best used to explore the phenomenon within a bounded system, as a set of activities within a specific organizational context, allowing for the collection and interpretation of the data within those boundaries (Yin, 2018). In this study, I used the case study design to capture information about and better understand innovation strategies of rural, small businesses within a narrow application of research. Ethnography is used in some studies primarily to explore the broader culture of a population, including traditions, customs, beliefs, and behaviors (Fetterman, 2019). The ethnographic approach was not appropriate because focusing on the larger aspects of cultural patterns and behaviors did not allow for data collection that would support the research question. Phenomenological design is used by researchers to capture constructed meanings from the lived experiences of participants (Beck, 2020). The phenomenological design was not appropriate because capturing individual meanings of their individual experiences did not allow for data to answer the research questions. Ensuring data

validity in case study research involves many steps, including using multiple sources of data to ensure triangulation is reached (Yin, 2018). Triangulation was achieved by conducting thorough interviews coupled with an analysis of the firm's documentation and innovation artifacts.

Population and Sampling

The population for this study was drawn from a rural geographic region in Northern California, which includes many rural micro and small businesses. Qualitative researchers must draw samples from a larger population but are restricted in the number of participants due to the intensive and in-depth nature of inquiry commanding large amount of time and resources (Asiamah et al., 2017). To create the most representative sample in service to the research question, qualitative researchers often must optimize their sampling despite logistical and practical limitations such as access and availability (Asiamah et al., 2017). First, the sample must represent participants who can provide relevant and germane data as it relates to the research question (Yin, 2018). For this case study, the sample population consisted of business owners operating their current business for at least 3 years who were willing to discuss their innovation activities within their organization.

Qualitative research sampling requires a balance between competing priorities, namely the effective and appropriate collection of data related to the research goal and the time, cost, and resources required to collect the data (Asiamah et al., 2017). The sample must also be the best reflection of the population, where the sample size may be dictated by a smaller or larger population (Asiamah et al., 2017). In consideration of the

study goals, a population of eight MSEs was considered adequate for a meaningful exploration of innovation strategies in rural MSEs, particularly in consideration that the population size is limited within the geographic region. Data triangulation is used to ensure data validity (Yin, 2018). I conducted in-depth interviews as well as review related documents and artifacts to ensure a high level of validity.

Drawing an appropriate sample requires both a clear criterion for choosing participants as well as a practical element of choosing those that not only fit the criteria but also are available and able to participate (Asiamah et al., 2017). The sampling criteria for participants included (a) being a currently operating business with fewer than 50 employees, in business for at least 3 years, (b) being located in the specified rural region located in Northern California, and (c) being a business owner who was willing to participating in the study. I used purposive sampling of eight businesses that met the sampling criteria.

Interviews are the central method of data collection for qualitative research (Yin, 2018). Face-to-face interviews are considered the best way to ensure high validity of the data but must also be conducted in appropriate settings that are conducive to protecting the participant's privacy and the confidentiality of the data collected (Merriam & Grenier, 2019). Live interviews were conducted in an environment chosen by the participants as COVID-19 restrictions had been lifted by the time participant interviews occurred.

Ethical Research

Research involving human subjects presents researchers with opportunity for detailed data but also presents ethical considerations for the safety of research

participants. Specific concerns arise when the research is centered around a case-study approach, which often requires prolonged, face-to-face interactions, and the research outcomes are heavily dependent on the researcher-participant interactions (Saunders et al., 2017). Participants' personal identifying information, information relating to their employment, and their opinions expressed during the process are vulnerable to inadvertent exposure and hold potential risk, unless safety precautions are taken (Saunders et al., 2017). Several safeguards were used to maximize safety for the participants and security of all data. First, informed consent was obtained for each participant using the informed consent form to ensure participants were aware of the purpose of the study, their right to withdraw from the study at any time, and the process to do so. Participants were able to withdraw from the study by indicating either verbally or in writing of their intention. I would have provided a written confirmation of their withdrawal and would have removed all corresponding data from the study, but no participants withdrew. Additionally, the form clearly indicated the safety measures being used to keep all data anonymous and secure. The study's validity is increased when there are clear records kept of data collection, interpretation, and storage (Yin, 2018).

Names of participants and organizations were converted to unique numerical identifiers, with a master list of metadata kept separately both physically and electronically, establishing a chain of evidence from collection to storage. IRB approval was another important step taken to ensure there was ethical oversight to the study as well as all related procedures and data storage. All data were securely stored for 5 years

in an electronic format, separate from any internet access now that the study has been concluded.

Data Collection Instruments

As the primary instrument of this investigation, my most critical role is to protect the integrity of the study. Ensuring participants have confidence in and trust the research process is the hallmark of a good researcher (DeJonckheere & Vaughn, 2019). In this qualitative multiple case study regarding rural business owners' innovation strategies, I conducted semistructured interviews as a key data collection source. Case study researchers most often utilize interviews as a data collection technique, which can be structured, semistructured, or unstructured (Denzin & Lincoln, 2018). Semistructured interviews provide an effective balance, giving enough structure to the interview process for the researcher to ensure relevant and appropriate data is collected in service to the research question, but allowing for enough flexibility to ensure the interview interaction can explore the richness and depth of the data, thus increasing the quality of the data (DeJonckheere & Vaughn, 2019).

Qualitative case studies offer the opportunity to explore phenomenon within their native context, allowing for researchers to develop rich descriptions (Yin, 2018). Conversely, their flexible and in situ nature increase the vulnerability of mistakes and subjective bias since data collection occurs in uncontrolled environments and requires an interpretation of the raw data, and this risk increases with multiple cases (Yin, 2018). To address and minimize these potential issues, specific measures can increase the quality and integrity of the data (Yin, 2018). Consistency in the interview process is a measure

designed to ensure data collection remains in line with the central research question and increase data cohesion ((Denzin & Lincoln, 2018). For this study, I used an interview protocol (see Appendix) to guide each interview through the same questions, increase data integrity as it related to the central research question, and increase the validity of data across multiple cases. The interview protocol ensures continuity in the interview process. As such, I increased my own familiarity, through practice, with the interview questions prior to conducting the interviews. In addition, I developed rapport through non-threatening opening questions, using an open, inquisitive, nonthreatening tone and body language to help create a sense of psychological safety and help balance any perceived power differentials. Also, by acknowledging the value of what the participant is contributing, I invited the participant to share more fully in the process of co-creating the data.

Other important elements of effective semistructured interviews include listening for accuracy and meaning by reflecting back answers to the participant, actively managing any potential bias throughout the process, and using follow-up questions to explore the lived experiences of the participants in depth (Brown & Danaher, 2019). By following the interview protocol, taking additional notes of impressions and areas needing follow-up, I managed the integrity of the process consistently. Secondary sources of data provide increased validity of a qualitative case study (Yin, 2018). Additional sources of data, including documents, artifacts and field observations were collected and used in conjunction with the interview data to better form an understanding of the innovation strategies of the rural business owners. Additionally, member-checking and

transcript review are essential to increase the validity of the investigation. Researchers conduct member checking, as a second interview with each participant, to determine if the researcher interpretation of the interview data reflects the intentions of the interviewee. The member checking interview provides an opportunity to enhance the interview data with explanations, examples, and clarity (Yin, 2018). I used member checking and transcript review to confirm the quality of the interview data before and after transcribing the interview data.

Data Collection Technique

Qualitative case study data collection, by nature, occurs in the participant's environment, and thus is uncontrolled (Yin, 2018). Qualitative researchers must manage these constraints through effective techniques and protocols aimed at ensuring participant safety as well as procedures for dealing with the unpredictable nature of the research setting (Yin, 2018). I conducted and recorded semistructured interviews at a time convenient for the participants. I recorded each interview both directly to my computer as well as recorded using the Samsung Recorder Application as a backup recording. I stored the recorded interviews and transcribed them using Microsoft Transcription software. When possible, I conducted observations of the business's innovation activities with the permission of the business owner, and I generated field notes on paper. Finally, with permission, I obtained documentary artifacts from the business owners directly, and indirectly online.

While semistructured interviews allow for an in-depth and detailed description of the phenomenon being studied in support of developing a better understanding, they are

also labor and time intensive and therefore only a limited number can be conducted within the scope of the project (Yin, 2018). Some participants may consider access to documentary artifacts invasive, which can be barrier to collecting that type of data (Stake, 2019). Careful listening and observing are critical aspects to effective interviewing (Stake, 2019). I interviewed eight rural small business owners in relation to their innovation strategies for this study, coupled with a review of documentary artifacts and any available field observation notes. Great care must be given to the interview setting, interactions between the researcher and the participants, and detailed observations of the participants' tone, body language, and potential stress created from participation (Merriam & Tisdell, 2017). I kept field notes throughout all data collection, including interviews, observations, and review of documentary artifacts to ensure that I captured the subtle, indirect, and contextual elements surrounding the primary data and to assist in the best interpretation of the data collected.

Once participants confirmed, I provided them with the interview questions ahead of their interviews along with the informed consent form to allow them time to adequately review the details of their participation, address any concerns they might have, and prepare for the interview. Concurrently, I informed them of their right to answer none, some, or all questions, or to withdraw completely, along with the supporting procedures. I utilized member checking and transcript review throughout the interview and data collection process to ensure a high level of accuracy in the interpretation of the data.

Data Organization Technique

Data management is essential to defending the credibility of the study overall, for protecting the confidentiality of the data, and the safety of the participants (Yin, 2018). Semistructured interview generate large bodies of textual data and effective organization and storage of the data supports higher levels of data integrity, thus increasing reliability (Merriam & Tisdell, 2017). Using an excel spreadsheet to document the interview data, I assigned each participant a numerical identifier, the date, and textual data from their interview. Associated field observations, impressions, and notes from reviewing any documentary artifacts were captured on the spreadsheet in parallel columns. The primary location of the data during processing was my password protected laptop, in a separately designated folder, within password protected excel files. I also stored all files in a cloud-based back-up system. I stored all physical forms of data in a locked filing cabinet. At the conclusion of the study, I transferred all electronic data to a USB flash drive and locked, along with the physical data, in a locked storage cabinet for 5 years, in compliance with Walden University data retention policies.

Data Analysis

In this study, I generated the primary data from eight participants using semistructured interviews with open-ended questions. I triangulated the interview data with documents related to the central research question. Methodological triangulation is a data analysis process best suited to compare multiple types of data to increase the research validity (Elliott, 2019). Mapping the data themes across each business owners' different innovation strategies was based on the process of methodological triangulation

and coding. The coding process consisted of several iterations, beginning with identifying broader themes in the initial review of the data, clustering data across those themes, and aligning the revised iterations with the central research question and conceptual framework.

The first stage of coding began after careful review of the interview transcripts, then I assigned and mapped initial codes to the data. From that point, I followed the iterative development and refining of the themes by (a) reading through each transcript thoroughly; (b) identify relevant, specifically significant data and begin to develop a meta-category taxonomy of meaning; (c) begin coding data by highlighting key words and phrases, within the broader categories to establish the basis for the development of themes; (d) begin to group coded data with similar meanings and begin the development of themes; (e) review the initial themes against the overall interview transcripts and research question to ensure the themes are being developed with integrity; (f) aggregate the data and refine the themes if necessary; (f) conduct a final assessment and refinement of the themes by reflecting on the larger categories and the research question (Merriam & Tisdell, 2017).

I conducted text and documentary data analysis using traditional text analysis, formatted in Excel, but without specialized software. While traditional analysis is a sound method, it is vulnerable to potential errors in data interpretation, tends to be a slower process, and can dilute results if too much of the data is left uncategorized (Elliott, 2019). To ensure the highest level of data analysis integrity, I ensured the process outlined above was focused on the best interpretation as well as reducing potential errors and

safeguarding against vulnerabilities. Once interview coding was completed, I analyzed the documentary artifacts and field notes, and finalized the categories and themes. I then explored the most recently published studies related to innovation strategies in rural small businesses, along with the related conceptual framework, to confirm the themes and incorporate the findings into the study.

Reliability and Validity

Reliability

To increase repeatability with any case study findings, specific measures must be taken to increase and ensure high levels of reliability are maintained throughout the project (Yin, 2018). Using multiple sources of evidence to capture data increasing allows a researcher to triangulate and map any convergence points, which strengthens the reliability of the findings (Yin, 2018). I gathered multiple sources of evidence for this study, including interview data, direct observation notes, documentary evidence, and any relevant physical artifacts, which all served to better understand the phenomenon of innovation strategies. The interview protocol gives explicit structure and documents operational processes being used (Yin, 2018).

The protocol includes the steps for contacting, engaging, informing, interviewing the participants as well as how data is checked with the interviewee, then collected and stored. I supported reliability in this study by ensuring the interview protocols are used to keep the interviews on track and are collecting data related to the research objectives. Participants are more likely to be open and share deeper and richer data if they experience psychological safety (Yin, 2018). I maintained a neutral, objective, friendly

tone and avoid why questions throughout the live interviews to support the participants openness and decrease any defensiveness. To further increase the dependability of the research, I used member checking and transcript review by conducting a second interview with each participant to enhance the accuracy of the interview data. Transcript review involves reviewing the interview data transcript with each participant, gaining affirmation of the researcher's interpretation of the information, and enhancing the data with explanations, examples, and clarity. In addition, I kept a case study database of all data collected, how the data was used, interpreted, and classified. The database included a chronological development of themes and codes and will allow for access to all data.

Validity

Validity refers to multiple aspects of a case study, including construct validity meaning how accurately the data reflects the concepts being studied, and both internal and external validity, which increase the confidence in the data analysis underpinning the study's findings and how generalizable the findings are outside the case study itself (Yin, 2018). Case studies provide an opportunity for rich descriptions of a phenomena, where the researcher serves as the primary data collector (Sumrin & Gupta, 2021). With the researcher playing a central role in both the in-depth collection of data as well as the primary person analyzing the data, it is imperative mitigate any subjectivity of the researcher to increase validity in the study (Sumrin & Gupta, 2021).

To enhance the validity of the research, I strengthened the research by fortifying the credibility, transferability, and confirmability of the study. To enhance the credibility of the study, I triangulated the data collection process with semistructured interviews, and a

review of available documentation and physical artifacts. Triangulation serves to validate the outputs used to interpret findings (Yin, 2018). Member checking further enhances the credibility of the research. I member checked all interview data by conducting second interviews with each participant to determine and enhance the accuracy of the interview data. I utilized several steps to increase construct validity and mitigate subjectivity throughout data collection. By using conceptual constructs established in prior research, the data collection will focus on data that can reliably measure the concepts being studied (Yin, 2018). Concepts of innovation strategies have been derived from previously validated research and serve as a solid foundation for the study. Additionally, the more specific a construct, the more accurate the data collection is (Yin, 2018). The constructs being measured are outlined in detail and are directly reflected in the interview protocols. In addition, I conducted member checking and transcript review of intended meanings, documented a clear chain of evidence in the database, and collected multiple sources of evidence to allow for converging lines of analysis.

While this case study objectives do not include a causal analysis, internal validity is supported by ensuring any conclusions from broader pattern recognition and matching are based on sound logic (Yin, 2018). Data analysis consisted initially of establishing broad themes and sub-themes using the established concepts, and by focusing on process and outcomes, chronological sequencing related to innovation process, and logic models to ensure all evidence was considered and the analysis stayed on track to the study's objectives. Additionally, I documented any data errors and corrections, labeled and retained unused data, and used appropriate visual displays to assist in the display of data.

I supported external validity, or the ability for other researchers to replicate the study, through a clear audit trail and database containing documentation of all data as well as the chronological steps and outcomes of the study.

Researchers enhance the transferability of a study by using repeatable techniques increasing the probability that if the research was repeated, the outcomes would be similar. Researchers achieve transferability by using an interview protocol, to ensure each interview is conducted consistently, and by developing an audit trail, documenting all steps taken in the design and implementation of the study (Yin, 2018). I ensured all steps taken in this study were accurately documented and preserved in the final doctoral study.

Research is further enriched through confirmability. Techniques used to strengthen confirmability include exhausting the data collection process. Exhausting the data collection process requires data saturation, which entails continuing to conduct interviews until the addition of new data adds no new information and at that point, the interviews stop. A second technique to build confirmability in research is to apply software, such as NVivo software, or using other similar strategies to analyze data. Data analysis improves the confirmability of research as researchers rigorously seek patterns and consistency of information found within the mass of data collected. Researchers code, cluster, and interpret data to confirm the accuracy and validity of the data collected. Yin (2018) provides a 5-step approach to data analysis to enhance the confirmability of research and these steps include (a) compile data, (b) dissemble data (code), (c) reassemble data (cluster), (d) interpret data, and (e) conclude findings. I used stringent

strategies to ensure the confirmability of the data by applying rigor in the data collection process, and by following Yin's (2018) 5-steps to data analysis.

Transition and Summary

Section 2 included a thorough discussion of the various stages of the research study. In this section, the purpose of the study, the role of the researcher, participants and population, the research design, and methods were all explained. Additionally, the data collection instruments, techniques, and data analysis were discussed. Section 3 includes the presentation of the findings, discussion of the application to business practice, the implication for change, recommendations for future research, and summative conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative case study was to explore the innovation strategies of rural micro and small business owners. The results indicated that business owners should focus on three aspects of innovation strategies, including antecedents, process, and review. Six themes in two categories emerged from the data analysis (see Figure 1). The first category was the antecedents to innovation strategies and included three themes: (a) create a clear context for innovation behaviors by linking them to internal and external drivers; (b) foster capability through self-efficacy, personal development, and organizational learning; and (c) ensure a capacity for innovation by linking resources and behaviors, with continuous attention management. The second category related to specific innovation activities as a process and included the next three themes: (d) identify, develop, and pilot innovations; (e) link innovation development to both rural and nonrural resources; and (f) assess and adjust innovation results through customized methods of results measurement.

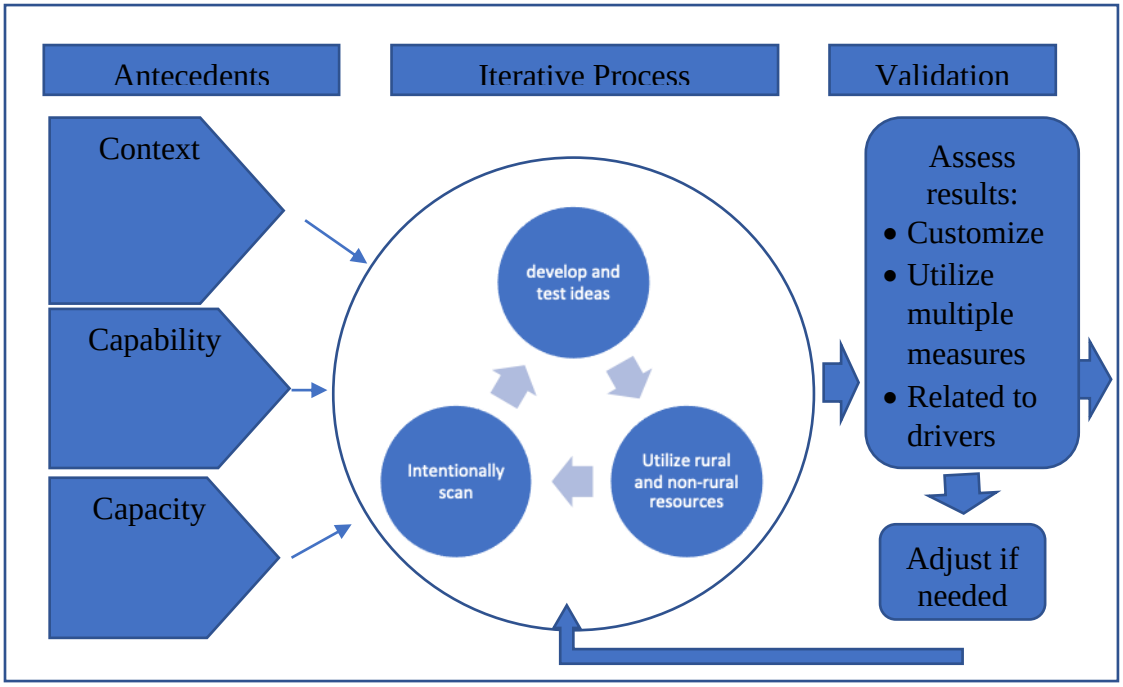
Participants for this study were eight rural small business owners in Northern California. Data were collected for the study by conducting semistructured interviews and reviewing documentation and physical artifacts. Documentation included website content, flyers, and social media posts; these were reviewed alongside artifacts such as physical locations, properties, buildings, products, operational structures, and physical workspaces. These themes aligned with the conceptual frameworks, including Van de

Ven's innovation theory (1986) and Castle's RCF (1998). While specific quotes and description of participant data are given throughout this section, confidentiality required that I limit exposure of each participant's responses and their business or industry, where they represent, in most cases, the only business owner providing a service or product, which reflects the rural reality.

This section includes (a) the presentation of the findings, (b) the application to professional practice, (c) implications for social change, (d) recommendations for action, (e) recommendations for future research, (f) reflections, and (g) the conclusion for the study.

Figure 1

The Three Aspects of Innovation Strategies in Rural Small Business Owners



Presentation of the Findings

The research question for this study was: How do rural small business owners develop and utilize innovation strategies to increase profitability? Innovation strategies were revealed during participant interviews, which were analyzed and organized into six themes. These themes aligned with the conceptual frameworks, including Van de Ven's innovation theory (1986) and Castle's RCF (1998; see Table 2). Specifically, Themes 1-4 and 6 were supported by Van de Ven's theory, notably (a) managing attention, (b) managing the conversion of the idea into a form, (c) managing the interrelated efforts to realize the new product or process, and (d) managing the overall culture of innovation (Shanker et al. 2017; Van de Ven, 1986). Theme 5 reflected Castle's rural capital framework where rural business owners support their success through the innovative use of unique capitals in the rural environment for competitive advantage.

Table 2

Presentation of Findings

Conceptual framework	Themes	# of Participants	% of Participants
Antecedents of innovation	Create a clear context for innovation behaviors by linking them to internal and external drivers. Foster capability through self-efficacy, personal development, and organizational learning.	8	100
Managing organizational attention Managing culture of innovation	Ensure a capacity for innovation by linking resources and behaviors, with continuous attention management.	8	100
Rural capitals	Utilize rural and non-rural resources.	8	100
Managing the conversion of idea into form Managing interrelated efforts	Scan, develop, and test ideas.	8	100
Reflection on results	Assess and adjust innovation results through customized methods of results measurement.	8	100

Antecedents of Innovation

Strategic antecedents to innovative behaviors vary between large and small firms (Davis & Bendickson, 2021). Vision, planning, and a strong, proactive entrepreneurial personality in the business owner are important in driving innovation within small firms as they tend to lack the resources and absorptive capacity of larger firms. Despite this emerging, expanded view of innovation, there is often a lack of understanding of the antecedents of innovation (Muchiri et al., 2020).

Theme 1: Create a Clear Context for Innovation Behaviors by Linking Them to Internal and External Drivers. Each participant's innovative behavior, while driven by internal and external drivers, was also consciously guided by a clear, concise mission, or the goals that were created by that mission; a direct expression of Van de Venn's theoretical framework, specifically establishing the antecedents to innovation and through to managing attention and managing the overall culture of innovation (Shanker et al. 2017; Van de Ven, 1986). Personal, internal drivers, such as a continual improvement lens, both to their own performance and their business operations, as well as determination to overcome challenges, and a commitment to emotional resilience, drove individual mental frameworks as well as planned actions for innovation. Equally prevalent across all participants was a continuous linking of innovative strategies to internal and external drivers.

The drive to succeed is somewhat assumed in an entrepreneur or business owner. While this may contribute to success, alone it is not enough to ensure a resilient, adaptive, and innovative approach to business. The clear and almost simplistic connection to

external and internal motivation was captured across all participants (see Table 3). Each person effortlessly and unconsciously identified their mission as a living commitment, framing their thinking, actions, and evaluations. For some the mission was expressed in physical artifacts as well, with Participants 2, 4, and 7 having written signs or a website text that linked their mission to their customers and staff. Participant 2 used the mission and values to align with partners in the community to foster innovation. In complement to specific external drivers, each participant displayed an array of internal beliefs driving their innovation strategies.

Table 3

Internal and External Drivers

Internal drivers	Continuous mental focus for improvement	Willingness to change, grow, adapt, transition	Persistence, determination	Resilience mindset		
External drivers	Mission and goals	Expansion, growth	Improving operations	New or improved products	Customer and community engagement	Crisis and problem resolution

Connecting innovation behaviors to the overarching mission of the business was present for several business owners and clearly drove the management of attention to developing and following through on innovation. Participant 1 had a clear, concise mission to “have what our customers need when they come in.” The participants linked back to this mission several times throughout their interview, in relation to both

antecedents and innovation behaviors. They also kept a physical log of customer special orders, using this to track the depth of overall customer need in their community. Participant 2 evaluated all their business practices, including innovations, through a lens of integrity and ethics-- a driving mission to produce a product that met high ethical standards. In addition to the interview, I viewed their pasturing structures which were innovatively designed for the natural setting, allowing the animals to utilize tree and shrub elements for health and wellness as well as to support ethical grazing practices. Participants 3 and 5 had similar missions driving their innovation strategies, namely, to providing opportunities for community networking and gathering. Additionally, I viewed their outdoor picnic and gathering areas, gardens, and several community gatherings. Additionally, each provided basic community offerings such as free coffee, tea, and snacks, board games, and indoor seating areas.

For some, the drivers were internally oriented. Participant 7 was motivated by the need to create a balance between the business mission and well-being for themselves and their family. Their website and advertisements were updated throughout the pandemic to reflect changes in their operations and products, changes that allowed them to concentrate their operating hours to only a few days per week but offer more personalized services. Participant 4 drove innovation from a deeply held commitment to self-improvement. That same commitment was translated through continuous learning for both the owner and the business, striving every day to find ways to improve. The same was true for Participants 2, 3, 5, and 8. Many spoke of lying awake at night, reviewing their own skills and

knowledge, as well as their operations, and how to improve them. I provide participant quotes reflecting their mission (see Table 4).

Table 4

Participant Quotes Reflecting Their Mission

P1	"…my number one priority is to have what people need when they come in."
P2	"...I've discovered that I had to look myself in the eye in the mirror every day and that is number one for me that I have to feel that I've done the best job."
P3	"so long as it benefits the community... and that's why we do it."
P4	"so looking at…the needs of the customer as well as opportunities for growth…because our big thing here is we always want to maintain what we have before we expand to new opportunities."
P5	"the main goal was to gather for fellowship, I wanted this to be a place where people could come more for fellowship than anything … it's a small community …I thought was networking and fellowshipping was more important than selling stuff."
P6	"I'm doing this for a living…so the opportunity I saw… [was] you can have a larger inventory at less expense …you can sell your product at a lower price, your product is fully acclimated to the climate you are in, so to me it was an opportunity to improve margin, improve inventory, improve quality, and attract customers."
P7	"It is about finding balance… that's also related to the smaller space … this is by design not by necessity … it's more like family oriented so it's mainly representing your cuisine and like in Europe, family businesses, they closed for two or three months …so they value what they're doing but they value as well their own life so they take time to rejuvenate and this way people don't burn out."

Theme 2: Foster Capability Through Self-Efficacy, Personal Development, and Organizational Learning. All participants had some significant effort toward making sure that there was capability for innovation within their organization. Capability was defined as being capable of innovating, primarily through self-efficacy as well as individual and organizational learning and development. This activity set the stage for innovation in the organization, as described in Van de Venn's framework as an

antecedent to innovation as well as the ongoing culture of innovation (Shanker et al. 2017; Van de Ven, 1986).

Self-efficacy and personal development were present in all participants and manifested in a multitude of ways. Self-efficacy is defined as an individual's belief in their ability to affect positive results in their performance, via cognitive and motivational processes, among others (Bandura, 1994). Specifically, individuals with high self-efficacy see challenges as problems to be mastered rather than viewing them as threats and taking avoidant action. Additionally, the mediating role between entrepreneurial orientation in business owners along with self and organizational learning and innovation behaviors is well established (Allameh & Khalilakbar, 2018; Nguyen et al., 2018). The importance of these antecedents is an emerging understanding and was found to have a significant and enduring role across the innovation activities of participants in this study.

Each participant had significant challenges throughout their time as a rural small business owner, including the economic setback of 2008-2009 in the United States, severe drought, destructive fires, evacuations, week-long power outages, and the continuous threat of fires, as well as the most recent global pandemic caused by COVID-19. Each owner rose to each of these challenges with a resilient and positive approach, all while managing the ongoing and pervasive issues that any business faces when operating in a rural context. Participant 1 rebuilt after a fire burned their entire business down. I viewed their new grounds as they had been rebuilt with innovative thinking as a driver, to both support the business model, creating better spaces for storage and buildings designed better to withstand fire and heat. Participant 4 reorganized operations when

smoke from wildfires and drought severely limited operations, instead keeping staff employed and taking the opportunity to do projects that required the business to be shut down. Participants 1, 3, 4, 5, 6, 7, and 8 all adjusted staffing schedules to allow for social distancing during the pandemic.

Personal development, either as learning or skill-building was woven throughout all participant responses. Participant 8 chose to build a business producing a product in a market for which they had no previous experience or knowledge. Each participant's journey was one of deep belief in their own capacity for learning, resilience, and perseverance. Each participant began learning on Day 1, and through each economic or business crisis, fell back on both self-efficacy and deep learning, directly in support of innovation. Their monthly revenue went from three to six figures through this process. Additionally, during the innovative process, they designed a wholly new product in the market and as of today, they still have no competitors. Additionally, they designed physical buildings and interior spaces to support the expansion of their products being designed on-site and added space for their employees to be outside in nature.

Participant 4 participates in continual self-improvement through education, engaging mentors in similar businesses, and collaboration within the community of similar businesses. When the 2008 financial crisis hit, Participant 7 headed out to take marketing classes, applying both old and modern lessons to keep the doors open. Participant 6 took education into their own hands, doing research online, practicing skill development, which they then launched into a free class for the community. The class was overwhelmed with students and had to be broken onto three separate dates, resulting

in a significant increase in exposure for the business, interjecting a narrative of expertise into the community and a significant increase in sales. Their website offers ongoing education and monthly newsletters, staying connected to customers in-between classes.

Participant 6 was rightfully worried for the future of their small service industry business during the 2008-9 financial crisis. Instead of shutting down, they began to research how businesses survived the stock market crash of the 1929, and then formulated an education plan in marketing and advertising through local classes and the chamber of commerce. These actions resulted in the business not only surviving but thriving through the hard times. As with the other examples here, there was no previous business education or experience in these areas, and the innovation was a direct result of simply believing they could learn and adapt.

Self-efficacy took on many forms amongst the participants. For some, it was directed in a collaborative manner. Participant 5 regularly relied on their ability to partner with members of their community, bringing energy to another person's knowledge, leading to innovative solutions. They exhibit a deep belief in this process, and it integrates tightly with their business mission to provide a place and support for the community. They have dedicated space within their physical building for free community supplies and have remodeled interior sections of their building to accommodate other small, entrepreneurial businesses in the community. Similarly, Participant 3 relied heavily upon community members for support throughout difficult times, drawing together community members to help move the business to a new location during the

pandemic. I provide participant quotes reflecting self-efficacy and personal development below (see Table 5).

Table 5

Participant Quotes Reflecting Self-Efficacy and Personal Development

P8	it was so new to me, ... clearly, I needed to do research... I didn't know, literally...I didn't know anything all at all… I didn't come from a business background, so it was amazing
P8	so I said I bet I can learn that now, so I took a ...Facebook marketing [class] and I just went very slowly day by day for the whole year and I go from 1000 to 10,000 fans.
P7	after the recession I took a course in [a nearby city] for the development, small business development and at that time I didn't have lots of marketing, so I started developing, we didn't have a website no so there was kind of a turning point power we started marketing a little bit more
P6	I started planting an orchard mostly...to grow the fruit and offer the fruit as samples so that people would taste it's ... I realized OK, you gotta maintain an orchard I'm learning the pruning and stuff why not give classes? prune it while I'm there let people see how it's done...
P3	I …will say hey how about this, how about that will just come up [ideas]… we'll be sitting there talking, brainstorming ways to improve the business
P2	"well, I do a lot of research online…I do find myself to be pretty resourceful as far as searching for solutions."
P6	"…my parents had started this business and it was going for seven years and I got involved and it was pretty small … my goal was if I'm doing this, I'm doing this for a living, and I wanted grow business to see what I can do with it."
P4	"…for personal development as well as business development as a leader it also has an employee you always have to be looking for opportunities to improve yourself, … self-assess yourself, see opportunities for growth ways that you can improve ways you can learn something new."

Theme 3: Ensure a Capacity for Innovation by Linking Resources and Behaviors, With Continuous Attention Management. Developing and maintaining a capacity for innovation activities is both an antecedent as well as an ongoing element in the innovation process. Each owner ensured there was capacity for innovation,

particularly that time, attention, opportunity, leadership, and resources are available for and linked to innovation behaviors. As Van de Ven (1986) postulated, a critical component of successful innovative strategies includes active attention management of the overall process. Each business owner displayed awareness across the spectrum of activities involved, while managing multiple competing operational priorities. In addition, each owner engaged in active and continuous management of each discreet activity and the linkages between those activities. Resources, such as time, attention, money, and effort were consciously dedicated to innovative activities. All the participants directed the focus and attention throughout all the innovation activities, even when aspects of the process were delegated. Meetings, discussions, project management, research, piloting, assessing, and adjusting are examples of the different methods of developing the capacity for and maintaining innovative behaviors.

Participant 4 assumed control of an established family business that needed modernization. They brought together a small, dedicated team of managers that meet regularly to bring forward opportunities for improvement or growth. The discussions are collaborative, with the owner relying heavily on each individual manager's expertise and front-line experiences of the operations and facilities. Weaving in feedback from the front-line staff as well, the business owner then aligns the priorities and opportunities discussed with the budget and market constraints to set projects in motion. The business owner ensures time, resources, and staffing are in line with the project goals as well as assuring continuous attention management through regular review of progress and needs.

Participant 6 drove most of the innovation themselves, with regular input from front-line staff and scanning of the operations. Assuming control of a family business that was run as a retirement hobby by their parents, participant 6 revamped the entire operation to be a fully functioning business that now supports them as well as many employees. They linked rural resources, including land, space, social networks and made products with the intention of improving efficiency, expand business, improve products, and increase customer traffic. Time, mental focus, research, iterative testing, and assessment were common themes throughout the responses. They took responsibility for ensuring ongoing attention management for each innovative effort.

Participant 8 utilized strategic partnerships to amplify their capacity for innovation. Partnering with internal staff as well as many external resources such as community members, mentors, educators, and other businesses. These partnerships spanned all innovation activities from creating capacity within themselves through learning, as well as developing new ideas, testing, and manufacturing activities. Participant 2 created capacity through self-directed activities such as deep research both online and through discussions with an eclectic group of experts, looking at both challenges and potential solutions through many lenses.

Elements of Developing and Utilizing Innovation Strategies

Theme 4: Utilize Rural and Nonrural Resources. A foundational assumption in Castle's (1986) RCF is that rural business owners use unique rural capitals to their competitive advantage. These unique capitals or resources are rooted in the fundamental context of rural environment, including land/space, highly developed social networks

across that space, natural products or settings, and made or cast-off products. Each business owner, to some extent had used one or more of these unique resources in the context of innovation and business operations, but the majority used the social capital as well as space and natural setting (See Table 6). The integration of these capitals into the innovation strategy was present in each participants responses, and while intentional in design and integration, some were more conscious of the advantage these resources were to them as rural business owners.

Table 6

Use of Rural Capitals

Capital	Examples	No. of Participants
Land/space	Buildings Grazing Recreation Demonstrations Agriculture	8
Natural setting/ beauty	Outdoor eating Classes Community Events Vendor Fairs	6
Social networks	Mentors Problem Solving Brainstorming Partnering Information/resources Marketing	8
Made/cast-off products	Crafted products Woodworking Food/Wine	4

Participants 3,4, 5, and 7 all used the natural beauty and space to support outdoor dining experiences, both as ancillary offerings to their main business or as the core offering of their business. Participants 3, 5, 6, and 8 all created outdoor gathering spaces for their employees and or community members to use at their leisure. Participants 2 and 6 used the land specifically to make their products.

While part of the rural capital's framework, social capital has been studied independently and found to be strongly, positively associated with innovation success (Ramirez-Solis, et al., 2021). All participants used the highly developed social networks within their communities throughout the whole spectrum of innovation behaviors. Connecting with people and across groups was strongly represented in the data. Participants 1, 3, and 5 all reported leveraging social capital to make critical business innovations. All participants sought out not only information, but engaged in cooperative decision making within their communities, often solving both discreet business problems as well as community problems simultaneously. They all provided secondary community services and support through their activities, even advertising for others through their businesses.

Participants 2, 4, 5, 7, and 8 all utilized their social communities for advice, information, resources, and brainstorming. Participants 2, 5, 7, and 8 went further by creating short-term partnerships within the community to address specific problems and operationalize related innovations. Participant 5 partnered with other business owners to address issues of retail theft when law enforcement would not. Participant 6 partnered with a local paper, providing weekly columns that served as education for the community

and created exposure of their services across a larger geographic region. Participant 2 served as a local supplier to many businesses and partnered with one retail business owner to innovate better practices within the community. Participants 2, 4, 5, 7, and 8 all engaged mentors from within the community to develop capacity or actual innovations. I provide participant quotes regarding the use of rural capitals- land below (see Table 7).

Table 7

Participant Quotes Regarding the Use of Rural Capitals- Land

P2	"the trees do, [and] water do trigger something there economically for me and that is the oak woodland is pretty valuable
P3	"…spaces to sit, work, read. Gardens for beauty. Large building to display large inventory of products"
P4	"…a hiking trail which again gets in that opportunity … we make the trail we go out …now this opens up the outlet for people who are coming to escape the urban environment… trying to get out there and connect with nature connect, with each other."
P5	"we also provide picnic area park we have at least three picnic tables yeah font up front two in the back nice back area, so we allow peddler fairs vendors to come in in the parking lot and set up their little booths"
P6	"…all that it's made the area very pretty you know the nursery is very unique in the fact that well because we're rural we've got a natural setting and I capitalized on that too build not only the quality but the layout the aesthetics which also helps give us reputation."

Rural capitals were not used to the exclusion of other resources. In addition to utilizing and integrating the unique rural capitals into the innovation strategies, each business owner indicated the use of more universal resources generally available to all small business owners, such as financial capital and traditional forms of marketing and advertising.

Theme 5: Intentionally Scan, Develop, and Test. When and how to innovate are critical elements and decisions a business owner must consider with intentional innovation strategies (Van de Ven, 1986). The motivational drivers of each participant varied depending on the specific innovation, but all participants engaged in some form of scanning within their operations, environment, community, or market to determine where to best focus their innovative efforts. The specific drivers ranged from crisis or immediate problems that jeopardized the business that needed to be solved, to opportunities to grow or expand the business to simply wanting to create higher levels of efficiency and reduce waste.

Participant 1 utilized formal data from suppliers and sales as well as continuously scanning customer feedback for both the development of an innovation as well as the assessment of how well an innovation was performing. Similarly, Participant 7 scanned on-site product consumption and directly solicited customer feedback at the point of engagement. Participant 4 gathered customer feedback post-engagement and integrated the data into innovation development and assessment. All participants used lagging indicators such as sales or repeat business to assess the efficacy of a particular innovation. Participants 1, 4, 6, and 8 utilized feedback from internal staff for both the development of ideas and the assessment of an innovation's effectiveness.

Piloting or testing are common strategies used to iteratively develop successful innovations (Miller et al., 2020). Each participant reported some type of testing strategies. Some business owners piloted a scaled-back, smaller version of the intended activity and then modifying and scaling up over time, whereas others would implement the full-scale

innovation for a period of testing and validation before institutionalizing the change. In all cases, incremental improvements were a part of the process. These activities also drove continuous organizational learning (OL), involving managers and frontline workers. OL is an important mediating factor to organizational innovation (Allameh & Khalilakbar, 2018; Nguyen, et al., 2018). The owner who had started classes when the pandemic hit, pivoted to providing ongoing lessons as well as current reflections and directions based on the recent weather, to an online format via newsletters and focused articles. These newsletters wove in current inventory and purchasing instructions as well.

Participant 1 scaled innovations depending on customer demand, offering special order options when only one or two customers were involved or full shelf space when there seemed to be a larger group of customers involved. The assessment of the innovation was often based on sales and customer feedback. Participant 4 adjusted their testing strategy based on the operational demands, time of year, and type of innovation. In some cases, full scale innovations were launched to completion and tested by customers. In other cases, innovations were piloted with a group or section of customers and then assessed before integrating into the whole operation. They offered multiple channels for customer and staff feedback, both paper and online forms were viewed. Participants 6 typically engaged in small scale pilots, with an iterative process to create incremental improvements. Participant 8 mostly implemented fully, and then adjusted the results incrementally. I provide participant examples of intentional scanning, developing and testing below (see Table 8).

Table 8

Participant Examples of Intentional Scanning, Developing, and Testing

P1	"…suppliers- past sales data from previous owner; customers- listening directly and indirectly."
P1	special order per customer request or, test a product on the shelf (if enough requests), watch sales, remove if no longer selling (start small, test, expand or drop)
P2	"…I'm up all night, you see mostly I just worry about everything so my mind I can't turn it off."
P6	Yeah, and so from trial and error, just guessing, taking it one day at a time you find out what happens, then you try to address that issue. then I decided well we'll give that a try and we did that
P4	"…same time you have an industry that's always evolving and changing as well."
P4	"…we do give them the opportunity to submit their feedback positive or negative as well as some of the questions we ask is if you like seeing improvement done here and what would you like to see that is not currently there."
P6	"so I just started designing the systems...as I progressed from there it's changed."
P6	"…myself it's very intuitive it's not very intellectual just I let things happen more and then act afterwards, so you reflect after it happens you reflect then… it's very intuitive is based on that intuition."
P8	"… and then look at this and then look at it and sit …So what do we do with that? and then it started… I was just trying."

Theme 6: Customize Multiple Methods of Results Measurement. A critical, but oft forgotten, element of innovation strategies is ensuring that the innovation is successful through clear measurement of results (Messman & Mulder, 2012). Determining the method of measurement up front allows for the innovator to connect strategy, mission, and outcomes throughout the design and implementation process (Taques et al., 2021). Each participant used clear, established multi-dimensional methods of outcomes measurement, some more intentionally linked to the innovation than others. Most business owners continually evaluated sales and customer activities and were able to generally link improvements in those areas to specific innovation activities. Other times, the measurement of results was specific to the removal of a discreet problem and the measurement of results was local to that issue, for instance theft reduction or quality issues. In many cases, the measurement was multi-factored, for example, measuring an increase in customer traffic, as well as an increase in sales overall, and of specific products, in the same time-period.

All participants used sales as a general measure of business success, and this was reflected as well in many of the innovation assessments. Other measures were related to the type of innovation. Participants 4 and 6 implemented innovations to increase operational efficiency, measured by the reduction in hours of labor. Participants 3, 4, 5, 6, and 7 used customer traffic as a measurement of success albeit for very different types of innovations. Despite sales and revenue being prevalent across most participants, none used profit as a method of measurement, mostly as it was too far removed from the

specific innovation activity over time and did not provide timely feedback. I provide examples of customized results measurement across participants below (see Table 9).

Table 9

Examples of Customized Results Measurements Across Participants

Sales and revenue	Customer feedback and comments
Return customers	Operational efficiency
Utilization rates	Customer traffic
Distance customer travels	Community involvement
Customer engagement	

Application to Business Practice

The findings from this study may help rural business owners develop successful innovation strategies. Specifically, rural small business owners may benefit from the strategies discovered during the study by applying them to their own leadership behaviors, their business practices, and through the specific development of an innovation community. Findings from the study provide successful strategies rural business owners use to effectively manage and realize innovations across their operations, business systems, as well as their market and customer interfaces. As the literature shows, rural business owners must find ways to innovate to remain competitive, viable, and to sustain their business over the long-term. Historically, urban business owners receive financial support at a much greater rate and have access to better infrastructure, workforce, and supply chains than their rural counterparts. Therefore, rural business owners must utilize local resources not available to their urban counterparts and must innovate to overcome their unique contextual challenges.

Implications for Social Change

The unique challenges facing rural businesses are well known, but there is a lack of understanding of how rural businesses can successfully overcome them. This study's findings could enable rural business owners to develop strategies to become successful in addressing the need for innovations for improving business performance, for increased revenues, and profitability. For effecting general beneficial social change, as small business owners strengthen their businesses, they will likely make greater community contributions, which can support the social and financial resilience of community members, through job creation and economic stability. Additionally, successful rural business owners bring social cohesion within their communities, as well as financial vibrancy through sustaining and increasing communities' tax revenues which directly benefiting the community and citizens.

Recommendations for Action

The study findings provide successful strategies that rural small business owners use to increase successful innovations. The central research question focused on innovation strategies. Participants shared multidimensional strategies that supported successful innovation within their businesses.

Findings from Theme 1 showed a direct relationship between internal and external drivers and creating a compelling context for innovation. The first recommendation is to have a clear understanding of both personal, internal motivations such as mission, vision, and values, coupled with environmental, market, and external motivations for innovation. All business owners were actively and intentionally guided

by these drivers both as antecedents to innovation as well as throughout all innovation strategies. Rural business owners should identify and articulate their mission, vision, and values to better create goals, assess needs, and inform decision-making.

Theme 2 findings supported additional innovation antecedents in the form of cultivating self-efficacy, personal development, and overall organizational learning. Rural business owners should seek out opportunities for learning and development at an individual level, identifying and pursuing knowledge and skills in areas where they need better business acumen and new knowledge. Additionally, it is important to ensure the whole business, as represented in their staff, are continually learning and fostering an environment of organizational learning. This type of personal and organizational learning serves as both an antecedent as well as system of support and energy throughout the whole of the innovation process. Establishing feedback within the system of business activities allows for both challenges and results to be understood and codified.

Ensuring that the business innovates successfully requires that time and attention be put into innovation behaviors. Theme 3 showed the need to intentionally link resources, behaviors, and attention through time to innovation. I recommend that dedicated time be spent in daily activities, both for individual employees and in group meetings where there is specific focus put to understanding challenges, needs and opportunities. The results of this environmental scanning should then be communicated up and throughout the business, via multiple channels. Using meeting time to discuss ideas, soliciting individual feedback through email or direct conversations, ensuring the business owner is accessible and available for ad hoc input are all ways to effectively

ensure the needs are known. The business owner should then direct resources as well as time and opportunity for the innovations to be developed, reviewed, and implemented.

While rural business owners often are isolated from financial support, they possess access to many unique forms of rural capitals which provide them with competitive advantage. Theme 4 reflects the ways in which rural business owners utilize these non-traditional resources for innovation. I recommend that rural business owners actively connect and partner with those in their immediate and neighboring communities to enhance their innovation strategies. Social capital is strong in rural areas, specifically in sharing ideas, partnering to meet needs and enhance business outcomes, as well as in supporting critical connections for workforce and product development. Other forms of rural capitals should be exploited as available. Utilizing open space, natural products, and made products are all successful in supporting innovative practices amongst rural business owners. The large amount of space available in rural areas comes at a much lower cost than in urban areas and allows for the development of grown or pastured products, product display coupled with community spaces, education and customer events are also supported in these spaces. In conjunction with social capital development, I recommend using the open spaces in support of mutually beneficial partnerships, such as makers demonstrating their craft as well as selling their finished products or hosting complementary services.

In Theme 5, the findings showed that with each innovation, testing and developing ideas is critical. I recommend a conscious, iterative process of scanning the environment and market to drive innovation activity choices followed by testing,

developing the idea to fruition. Specifically, once a rural business owner has chosen the important opportunities and challenges to address, and they dedicate resources and attention to innovative ideas, they must test and refine the specific innovation until it aligns with the desired outcome. Launching the innovation may lead to more adjustment, as performance is assessed.

Finally, Theme 6 findings indicate the need for multiple methods of results measurement. I recommend detailed assessment in specific moments in time along with broader measurements of success. First, assess performance as the innovation is being utilized in real time through observation and feedback. Speak with a specific customer, observe a customer or groups behavior, or measure traffic during an hour or day. Secondly, assess success through broader measurements such as revenue or sales patterns, or the overall absence of the problem for a longer interval of time, or through the aggregate feedback via employee or customer surveys.

Recommendations for Further Research

The findings from this study add to the body of knowledge in the field. Future studies may add additional information to the existing literature surrounding the phenomenon. Rural business owners in future studies may learn successful innovation strategies. Additionally, future research may reveal additional strategies used by others in the field.

In Theme 1, the findings showed that both internal and external drivers were integral in creating a clear and compelling context for innovation strategies, as both an antecedent as well as a tool for alignment and attention management. Researchers may

explore this relationship further, developing a deeper understanding of how these drivers support innovation strategies and further refine our understanding if certain drivers are more important or may play stronger roles at different stages or in specific contexts.

In Theme 2, the findings showed that the individual business owners' personal development and self-efficacy drove innovation behaviors and were linked with supporting those same beliefs and activities across the business and employees. Future researchers may focus on discovering deeper understanding of the role of self-efficacy as it relates to innovation behaviors, business resilience, and organizational learning behaviors. Additionally, researchers could explore whether self-efficacy must be present in the staff of the business to foster innovation behaviors.

Theme 3 findings showed the relationship between ideas and actual innovations through the intentional linking of resources and attention to innovation activities. Researchers could expand on these findings through the exploration of the relationships between types and amounts of resources dedicated to innovation behaviors and actual innovation outcomes. Additionally, future research opportunities may lie in how such dedication of resources and time impact the business operations in the short and long-term.

Theme 4 findings showed that rural small business owners innovatively utilized unique, rural resources for enhanced business success as well as used those resources to foster and support innovation activities. Exploration of both dynamics, in future research, could enhance the understanding of how rural business owners might better understand

what these unique forms of capital are, and how they may be used for competitive advantage, and innovation.

That rural business owners consistently scan, develop, and test their innovations were the findings of Theme 5. How often and for how long development and testing should last is an opportunity for future research. The important elements of scanning within the business environment and in the external market, who is best to do this, and what is the best method for collecting, recording, and analyzing this data are also areas for future exploration.

Theme 6 findings showed that rural business owners utilize multiple and multi-dimensional measurement to determine the success of their innovations. There is future research opportunity in the exploration of how rural business owners learn and develop understandings of the various ways to measure, the dimensional aspects of measurements, and the distinction between an innovation being successful versus the impact of that innovation on the overall business. More research in this area could explore whether or not measurement matters to the overall efficacy of an innovation or business.

This study's findings support the effective use iterative innovation strategies, driven by personal beliefs and the vision, mission, and values of the business. Further research may discover more refined strategies and relationships between antecedents and specific elements of innovation success. One limitation of the study was a small sample size. The participating business owners represent only a small area and a small group within the larger number of businesses within that area. The study was restricted to rural

small businesses in Northern California, which also limited the sample size. A broader understanding of the cultural dimensions of innovation strategies may be realized by researching in other geographic locations across the United States and globally.

Data collection for the study was limited to interviews and specific business artifacts. A recommendation for future research is use other forms of data collection which could include geographic rural capitals, community, and market data. Community groups consisting of rural small business may provide additional data on the social and communal aspects of innovation strategies.

Reflection

My doctoral study has been a long, winding process of both discovery and excitement. I am very thankful to have had the privilege of walking this road. Mostly, I am grateful for all the people who have supported me, for the deep sense of diligence that I have developed, and for faith, in the hardest moments.

At the beginning of this study, I had hoped that the process would shine a light on the amazing, hard-working people in the rural areas. My sense was that I would discover a bright and lively innovation dynamic underpinning the successes of rural business owners. I learned that indeed rural business owners are iteratively and ongoingly innovative. What was a delight to discover was that the innovation is often an expression of the rural ecosystem and communities, a way of thinking and way of life more than just an occasional tool. Large, urban businesses have much they can learn from this rural way of being.

I loved the research process overall, but especially conducting the interviews in the field. The literature review was exhaustive and exhausting, but it was that process that finally made my own research plan come to life and cemented my sense of being part of a greater community of scholars. Every tedious step truly supported the next stage in the process and gave me confidence. Participating in the DBA program has provided me with the skills needed to conduct future research and advance my career.

Conclusion

The success of rural businesses relies on the innovation strategies of rural business owners. The lackluster funding and access to support has left many rural business owners and rural communicates isolated and at the mercy of their own resourcefulness. Yet, despite these challenges, rural business owners enjoy better retention and long-term success rates than their urban counterparts.

Van de Ven's innovation framework (1986) and Castle's RCF (1998) provided the foundation for the theoretical frameworks for this study. Specifically, Van de Ven's framework posited that innovation strategies contain elements of (a) managing attention, (b) managing the conversion of the idea into a form, (c) managing the inter-related efforts to realize the new product or process, and (d) managing the overall culture of innovation (Shanker et al. 2017; Van de Ven, 1986). Castle's (1998) rural capital framework connected rural business owners' success with the innovative use of unique capitals in the rural environment for competitive advantage.

The central research question for this study was how do rural small business owners develop and utilize innovation strategies to increase profitability. Rural business

owners must engage in iterative, ongoing innovation strategies in order to successfully navigate both the everyday challenges of rural life and the episodic challenges that disaster bring. I interviewed rural small business owners from the western United States. The interviewed questions I designed incorporated Van de Ven's (1986) innovation framework and Castle's (1998) RCF to determine the innovation strategies of rural small business owners. The purpose of the study was to explore discreet innovation strategies incorporated into rural business owners' business activities. Participants successfully employed an array of activities across many facets of their businesses, innovating products, the business model, and market integration based on the findings. Future research may expand upon these findings.

Rural business owners must create a clear context for innovation behaviors by linking them to internal and external drivers. Specifically, they must foster capability through self-efficacy, personal development, and organizational learning. This will allow them to actualize innovations by following three, iterative steps in the process beginning with ensuring a capacity for innovation by linking resources and behaviors, with continuous attention management. Additionally, they must scan their environment, develop, and test ideas using both rural and non-rural resources. Lastly, they evaluate their results, adjust where needed, and measure the impact of the innovations. This strategy will increase their success and strengthen their impact on the community.

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Appendix: Interview Protocol

<table>
<tr><th colspan="2">Interview Protocol</th></tr>
<tr><td>Introduce the interview and set the stage—often over a meal or coffee</td><td>Script:
Thank you (Title & Name of Interviewee) for taking the time to meet with me today. I will ask you a series of interview questions to explore innovation at your business.</td></tr>
<tr><td rowspan="7">Reminders that you should do during the interview.

• Watch for nonverbal cues
• Paraphrase as needed
• Ask follow-up probing questions to get more in-depth data.
• Remember that qualitative researchers need deep and rich data. A one sentence short answer to the interview question may provide superficial data at best.
• Again, probe, probe, probe. Metaphorically dig deep for rich data.</td><td>1. Interview question
What strategies do you use to increase your organization's innovation for increasing profitability?</td></tr>
<tr><td>2. Interview question
How do you measure the effectiveness of your innovation strategies?</td></tr>
<tr><td>3. Interview question
What resources have you utilized for your innovations (including social, natural, made)?</td></tr>
<tr><td>4. Interview question
How have you utilized these resources to innovate new or improved products, processes, or practices?</td></tr>
<tr><td>5. Interview question
Based upon your experiences, how have those innovations affected your business’ performance?</td></tr>
<tr><td>6. Interview question
How do you ensure that you have time to generate new ideas and follow through on them?</td></tr>
<tr><td>7. Interview question
What additional information can you provide to help me understand your strategies to innovate for increasing profitability?</td></tr>
<tr><td>Wrap up interview thanking participant</td><td>Script
Thank you (Title and Name of Interviewee) for taking the time to meet with me today. I appreciate you sharing insight of your business' innovation strategies.</td></tr>
<tr><td>Schedule follow-up transcript review interview</td><td>At the conclusion of this qualitative study, I would like to meet with you to review the results and validate your responses to the interview questions asked on today. I will share the data with you to ensure the information is measured accurately based on your responses.</td></tr>
</table>