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Exploring the Role of Social Capital in Beginning Farmer Success in the State of Missouri

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**EXPLORING THE ROLE OF SOCIAL CAPITAL IN BEGINNING FARMER SUCCESS
IN THE STATE OF MISSOURI**

A Master's Thesis

Presented to

The Graduate College of
Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Agriculture

By

Claire Elizabeth Eggerman

May 2023

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EXPLORING THE ROLE OF SOCIAL CAPITAL IN BEGINNING FARMER SUCCESS IN THE STATE OF MISSOURI

Agriculture

Missouri State University, May 2023

Master of Science

Claire Elizabeth Eggerman

ABSTRACT

As the average age of the American farmer continues to increase (USDA, 2019), concerns about attracting future agriculturalists remain. Several governmental programs exist to assist beginning farmers and ranchers (generally defined as those with 10 years or less experience as a principal operator), but unfortunately numerous barriers remain. Using focus groups and qualitative analysis, this research aims to identify critical factors of success. Focus group participants were farmers who participated in beginning farmer and rancher programs, those who had not participated in beginning farmer and rancher programs, and program administrators . Attention was paid to their use of social capital as they entered the industry.

KEYWORDS: beginning farmers, social capital, social networks, trust, reciprocation, beginning farmer and rancher programs, focus groups

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May 2023

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In the interest of academic freedom and the principle of free speech, approval of this thesis indicates the format is acceptable and meets the academic criteria for the discipline as determined by the faculty that constitute the thesis committee. The content and views expressed in this thesis are those of the student-scholar and are not endorsed by Missouri State University, its Graduate College, or its employees.

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I dedicate this thesis Melvin Eggerman and Norman Kasten, two of the most kind and passionate farmers I have ever known.

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INTRODUCTION

Due to the successful social, economic, and technological innovation in today's society, people are thriving and living much longer than in previous years (Nelson et al., 2012). The increase in life expectancy is a factor that has caused the projected population to increase (Nelson et al., 2012). In 2050, it is estimated the world's population will increase from 7.7 to 9.7 billion people (DESA, 2019). With the projected increase in population, farmers must continue to meet the demand of feeding the world (Nelson et al., 2012). At the same time the average age of a farmer is 57.5 years old, and continues to rise (USDA, 2017). With the increasing age of farmers, new farmers will need to enter the industry. Additionally, almost half of beginning farmers are over the age of 55 (Dodson & Ahrendsen, 2016). With the average age of a farmer increasing, the fears for farmers entering into the industry have begun to beg the question of what challenges beginning farmers face (Dodson & Koenig, 2007). What happens next when society does not have the farmers needed support the growing population?

Beginning farmer and rancher programs have been implemented to encourage individuals to enter the farming industry. The United States Department of Agriculture (USDA) says a beginning farmer is anyone who has had 10 or less years of farming experience (Dodson & Ahrendsen, 2016). However, it is not the most straightforward act to enter farming as many barriers to entry exist (Dodson & Ahrendsen, 2016). Currently, beginning farmer programs must improve to better support issues beginning farmers face (Dodson & Ahrendsen, 2016). Federal programs were created to support family farms (Dodson & Ahrendsen, 2017). Through the loans, there is a hope to lower industry barriers like access to capital to purchase land. The with

these loans is to help decrease risk resulting in more loans being distributed and encourage more individuals to enter the industry (Dodson & Ahrendsen, 2016).

Dodson & Koenig (2007) said the growing age of farmers in the United States sparked a need to encourage more individuals to enter the farming industry. To better support beginning farmers, the 2014 Agriculture Act was instated. Unfortunately, the concern for the lack of beginning farmers and beginning farmer support has steadily risen since the 2014 Agriculture Act (Auburn et al., 2019). The 2014 Agriculture Act, also known as the Farm Bill, aids beginning farmers by increasing funding for development, improving outreach opportunities, and assisting with the transfer of farmland for the next generation (Williamson, 2014) which aims to address the two potential challenges farmers are faced with when entering the industry: access to land and access to the necessary capital for purchasing land (Ahearn, 2011). As a result, beginning farmer government programs were created to assist beginning farmers (Auburn et al., 2019).

Another example of a beginning farmer program is the Beginning Farmers and Ranchers Development Program. The Beginning Farmers and Ranchers Development Program helps beginning farmers with their everyday challenges such as farming and ranching production methods, marketing strategies, farm business planning and management, and natural resource conservation strategies (Auburn et al., 2019). The purpose of the program is to engage more beginning farmers with sustainable and successful resources needed to thrive in the industry (Auburn et al., 2019). However, beginning farmers' ability to gain access to land is a barrier that is becoming more and more prevalent and is still at the forefront of concerns (Dodson & Koenig, 2007).

This is just the tip of the iceberg. Each beginning farmer program has different requirements. Beginning farmers have struggled to meet and understand the numerous requirements for these programs. Some requirements include the level of farming experience a new farmer has, the 30% rule, and level of off farm income (Travlos et al., 2019). The 30% rule is described according to the USDA,

As established by the Beginning Farmer definition, loan applicants interested in the Down Payment loan may not own more than 30 percent of the average size farm at the time of the application. The applicant may exceed the 30 percent after the loan is closed (*FSA*, n.d.).

Because of the difficulty using beginning farmer requirements, those able to utilize beginning farmer government programs are at risk of being overleveraged, thereby using equipment used provided by neighbors or a family member (Dodson & Koenig, 2007). Many turn to family and friends to borrow equipment when exceeding the maximum loan limit of the program. Travlos et al. (2019), point out not everyone has family or friends to rely on, meaning not everyone will have this ability when entering the industry. If a farmer does not have the social support to enter the industry how can they be successful? Many farmers have to rely on others to meet their goals when entering the industry. This is known as social capital. Social capital covers a wide variety of disciplines. Adler & Kwon (2002) said social capital is,

understood roughly as the goodwill that is engendered by the fabric of social relations and that can be mobilized to facilitate action—has informed the study of families, youth behavior problems, schooling and education, public health, community life, democracy and governance, economic development, and general problems of collective action.

The concept of social capital is a concept that embodies social life (Adler & Kwon, 2002).

Social capital encompasses values, trust, social networks, and relationships. What guides social capital is the idea of the value of people and the “goodwill” they possess and can offer other individuals (Adler & Kwon, 2002). Social capital is considered capital for the following reasons,

like all other forms of capital, social capital is a long-lived asset into which other resources can be invested, with the expectation of a future (albeit uncertain) flow of benefits. Through investment in building their network of external relations, both individual and collective actors can augment their social capital and thereby gain benefits in the form of superior access to information, power, and solidarity; and by investing in the development of their internal relations, collective actors can strengthen their collective identity and augment their capacity for collective action (Adler & Kwon, 2002 P. 21).

When evaluating social capital, it is important to note that social capital can substitute or compliment other forms of capital. The purpose of this study is to explore the utilization of social capital in beginning farmer success in the state of Missouri. Further examining if social capital plays a role in the success of beginning farming success and if beginning farmers benefit from having social capital. This raises two questions:

- *What role, if any, does social capital play in beginning farm success?*
- *Is there a difference in the role of social capital for those participating in beginning farmer government programs versus those who are not participating?*

Using a qualitative approach, secondary data from eight focus groups conducted 2018 were analyzed. The focus groups consisted of three groups of Missouri beginning farmers who participated in beginning farmer programs, three groups of Missouri beginning farmers who did not participated in beginning farmer programs, and two groups of program administrators. Open coding was to help understand and explore the utilization of social capital in Missouri

agriculture. From there, three themes or codes were discovered and discussed in further depth to better understand the purpose of social capital in Missouri beginning farmers.

LITERATURE REVIEW

The Problem

It is reasonable to ask why people should be concerned about beginning farmers. Why are individuals not beginning new farming operations and why does it matter? Ahearn (2011) says,

Based on policies, programs, and statements, various policy makers have revealed that they believe it matters to the country's national security and rural areas how many beginning farmers there are and how well they are prospering. Concerns are often expressed by referring to the advancing age structure of established farmers.

Agriculture is a lifestyle for many individuals causing farmers to stay in the industry despite the many challenges (Howley, 2015). Howley (2015) utilized a cross-sectional survey of 364 principal farm operators in Ireland to study why individuals farm. Four separate logistic regressions were utilized, focusing on (1) intention to increase output over the next three years, (2) intend to be still farming in 10 years, (3) participation in off-farm employment, (4) have diversified their farm business over the last seven years (Howley, 2015). From this study, it was found that profit is not the only factor farmers to consider staying in the industry (Howley, 2015). "Farmers often enjoy nonpecuniary benefits from actual farm labor (intrinsic), but they also enjoy many social and lifestyle benefits that are a by-product of the farming lifestyle (extrinsic). These extrinsic benefits include greater autonomy of choice from being self-employed, lifestyle benefits living in a rural area, and social interaction with other farmers." (Howley, 2015).

Despite the challenges Howley (2015) identified from which included, farmers are still continuing to stay in the industry even as new farmers are entering the industry. Howley (2015), found policy stimuli, such as financial incentives, may encourage farmers to continue farming or enter the farming industry but lifestyle and social factors are also important and serve as

incentives to enter the farming industry (Howley, 2015). These include living in a rural community and continuing a tradition. However, it is not an easy task to begin farming. With the difficulty of entering the industry, the problem of how to get new farmers to starting a new farming operation arises.

Challenges

Beginning farmers face numerous challenges when entering the industry. First, beginning farmers struggle to enter the industry because they struggle to find access to land and having the necessary capital to land (Travlos et al., 2019). Second, there are limits to the amount of capital an individual can borrow to secure the necessities to farm like land and equipment.

Travlos et al. (2019) says,

Agricultural production requires a substantial amount of capital, assets and other variable inputs such as access to farmable land, farm equipment, on-farm infrastructure, seed and feed, pesticides, vaccinations, fencing materials, fertilizers, etc. To obtain the capital and assets necessary to achieve farm profitability, financing becomes critical.

Because of the difficulty of acquiring the necessary equipment, it is often difficult for a farmer to enter the industry.

Beginning farmers also face challenges of a lack of program resources. Many times, farmers find themselves facing difficulty interacting with program administrators due to being understaffed (Travlos et al., 2019). The role of a program administrator is to assist the farmer with farm programs (USDA, 2020). According Travlos et al. (2019), this is an issue many farmers face saying,

Many participants felt a lot of the barriers identified could potentially be fixed if the workforce was to increase. Furthermore, the lack of online resources and the seeming

reluctance from program administrators to create online applications was another interesting finding.

Beginning Farmer Programs

To help encourage individuals to enter the industry the United States Department of Agriculture (USDA) has implemented beginning farmer programs. The USDA strives to engage new farmers to enter the industry with their programs aims to draw new farmers in saying,

New to farming? Want to learn how to start a farm? USDA can help and offers additional assistance to beginning farmers and ranchers. USDA considers anyone who has operated a farm or ranch for less than ten years to be a beginning farmer or rancher. USDA can help you get started or grow your operation through a variety of programs and services, from farm loans to crop insurance, and conservation programs to disaster assistance (USDA, 2020).

The USDA's goal with these programs is to provide the necessary capital needed to begin an operation by providing loans specifically designed for beginning farmers and ranchers but it is not as easy it may seem. The Farm Service Agency (FSA) created loan programs to ease the difficulty of starting a farm as it relates to accessing credit. Two types of loans are available for beginning farmers through the FSA: guaranteed and direct loans (Dodson & Ahrendsen, 2016). "The direct program addresses specific concerns related to social equity, while the guarantee program primarily has the broader role of addressing market failures resulting from informational asymmetries" (Dodson & Ahrendsen, 2016). Through these loans, FSA tries its best to combat the decrease of those entering the farming industry (Dodson & Ahrendsen, 2016). However, it has been noted as time progresses each type of loan targets a specific group (Dodson & Ahrendsen, 2017). Direct loans are designed to help those from a smaller farm, whereas guaranteed loans help more extensive farming operations (Dodson & Ahrendsen, 2017). Direct

loans are created to specifically address the needs of beginning veteran and social disadvantaged farmers (Dodson & Ahrendsen, 2016).

Many beginning farmers have to apply for loans through FSA to purchase land (Dodson & Koenig, 2007). To be eligible for a FSA loan, the farmer must meet criteria published by federal regulation (Dodson & Koenig, 2007). Those who qualify must possess the skills FSA determines is needed to successfully run a farming operation (Dodson & Koenig, 2007). The USDA requires three criteria to qualify as a potential beginning farmer candidate, eligible farm enterprise, farm management experience, and general eligibility requirements (*FSA*, n.d.). The general eligibility requirements included the following from USDA, not having federal or state conviction with the use of controlled substances, having the legal ability to take full responsibility of loan obligation, sufficient credit history, United States citizenship or legal residency, not applicable to access acceptable credit elsewhere, obtain zero debt forgiveness by the agency, no federal debt excluding IRS tax debt, ineligibility due to federal crop insurance violation, acceptable farm managing experience via education or on the job experience, and be the farm operator after closing the loan (*FSA*, n.d.). With meeting these requirements, the overall goal is to,

offer up to 100 percent financing and are a valuable resource to help farmers and ranchers purchase or enlarge family farms, improve and expand current operations, increase agricultural productivity, and assist with land tenure to save farmland for future generations. (*FSA*, n.d.).

Eligibility Requirements

According to the USDA, a beginning farmer is anyone who has 10 or less years of experience operating a farm (Ahearn, 2011). A beginning farmer does not have the same amount of experience established farmers. More and more programs are becoming readily available for beginning farmers to address these challenges (Travlos et al., 2019). However, there are many issues these programs still need to address, such as access to land, tenant farming, and racial injustice (Calo, 2017). Many farmers discuss the difficulties of finding access to land.

Beginning farmer programs, while trying to help, are not providing the support farmers need due to a lack of understanding (Travlos et al., 2019). Travlos et al. (2019) identified potential barriers to program participation, including time, program awareness, program resources, program requirements, and eligibility in Missouri. Many farmers in this focus group identified time to be a huge factor in hindering beginning farmer success (Travlos et al., 2019). Because of regulations and the processing time of the program participants lost out on appropriate farmland (Travlos et al., 2019). Due to the long processing time, buying available land becomes difficult due to not having the funds when the payment is necessary (Travlos et al., 2019). To help with this many farmers will rely on social networks such as family and friends to help with purchases, however, not every farmer has the luxury of relying on family and friends (Travlos et al., 2019). To help new farmers enter the industry, numerous governmental and organizational programs have been created (Travlos et al., 2019). These programs are designed to strengthen the relationship between beginning farmers and local financial providers (Travlos et al., 2019). While there have been numerous success stories, there could potentially be more if there was an increased effort in promoting the use of programs (Travlos et al., 2019). For those that are aware of the programs are available, the challenge of the programs having the necessary resources comes into effect (Travlos et al., 2019). From Travlos' et al. study in 2019, he said,

The degree in which program administrators were understaffed echoed throughout the focus group discussions. Many participants felt a lot of the barriers identified could potentially be fixed if the workforce were to increase. Furthermore, the lack of online resources and the seeming reluctance from program administrators to create online applications were another interesting finding. When program administrators were asked what would make their programs more effective, often times the response was to hire and train more administrators. The depleted workforce of government agencies is causing issues and administrators are backlogged with work. Due to the exhausted workforce, the duration to approve applicants has expanded even further and has subsequently become a weakness of the programs.

One issue many farmers felt existing farm programs suffered from was a lack of support from program administrators. One idea to help increase the awareness of programs is connecting new applicants to those who have already been through the process (Travlos et al., 2019) as these farmers can help guide new farmers through the process, educate them on potential opportunities, and provide additional support (Travlos et al., 2019). According to Travlos et al. (2019),

This would allow applicants to have assistance outside of the administrators themselves and simultaneously improve the processing time as the administrators would not be dealing with incomplete/incorrect applications as much.

Even though farm programs exist, not everyone qualifies for these programs (Travlos et al., 2019). Certain requirements must be met to qualify for beginning farmer programs. Some requirements include having less than 10 years of experience on family operations may have more and then no longer qualify. Management also is classified as making decisions on the farming operation. This can be difficult when a farmer comes from a family operation because a grandparent may not want to give up control. Many may not have the necessary knowledge to be successful. three years of management experience for FSA down payment loan programs, the 30 percent rule (applicant cannot have previously owned 30% of acres of the county average

farming operation) and proving anticipated on-farm income exceeds expected off-farm income (FSA, n.d.). This can be difficult because many farmers may not have a large enough farm or make enough money to solely farm to service the debt.

In addition to the struggles beginning farmers face entering the industry, many farming families have to seek off-farm income to make ends meet (Bubela, 2016). Most beginning farmers are not young farmers and spend most of their time at an off-farm job (Bubela, 2016). Over the years, off-farm income has become more common in families (Bubela, 2016). Off-farm income gives beginning farming operations the needed support to address the fluctuating income farming produces (Bubela, 2016). While the farmer continues to establish the operation, off-farm income can provide the stability needed to assist farmers in that beginning stage but may make them ineligible for beginning farmer programs (Bubela, 2016).

Resource Utilization

Many beginning farmers struggle to have the proper resources needed to be successful in the industry. These resources include access to land, proper equipment, and necessary government programs (Liang, 2018). Beginning farmer programs can provide loans for the necessary capital to purchase the necessities like land and equipment, to be successful. To overcome resource challenges (USDA, 2020). One program in North Carolina, a project called farm incubators, provides affordable and collaborative space, training, and the tools necessary to begin operations while providing the support needed to be successful when launching a farming operation. (Liang, 2018). To utilize the farm incubator resources, farmers pay an initial charge (Liang, 2018). The programs are supported by a federal program (Liang, 2018). Farm incubators demonstrate how vital beginning farmers are and the support they provide for rural development

and food security (Liang, 2018). Farm incubators connect farmers resulting new social networks and the opportunity to expand their knowledge. Unfortunately, farm incubators face challenges with low funding, and may not meet the needs to spark rural development thereby not helping beginning farmers enter the industry (Liang, 2018).

Rohwer (1949) brings up an excellent point in addressing how relationships and relations play in the family farms inherited from a family member and began farming at an early age with family. While other farmers began renting first or borrowing equipment from family other farmers apply for a loan and purchase necessary equipment (Rohwer, 1949). According to Rohwer's (1949) study, new farmers were entering the industry because they had family members in the industry. This was seen when established farmers would help them find and purchase accessible land or give an early inheritance (Rohwer, 1949). These methods are still being used today to enter the industry by beginning farmers. Farm loans are still available today through programs like the beginning farmer loans programs. However, due to eligibility not everyone meets the requirements to qualify for programs. Additionally, those who do may become overleveraged due to the loan limits may have to turn to other ways to meet their operation goals (Travlos et al., 2019). These individuals may utilize social capital.

Theoretical Framework

Social capital in Missouri is a topic that lacks research. In previous studies, farmers are having to come up with various means to overcome the obstacles that farmers face, like accessing land. Social capital is seen to affect agriculture in various countries, but it is important to see how social capital affects agriculture in the United States.

Defining Social Capital. Social capital is a concept that can be traced back to the 19th century but has drawn more attention by researchers in the last 20 years (Grootaert & Van Bastelaer, 2002). However, due to the multidisciplinary appeal, there are numerous interpretations of what constitutes social capital. While there are many definitions, it is generally agreed upon that social capital is, according to Grootaert and Van Bastelaer (2002), defined broadly as “institutions, relationships, attitudes, and values that govern interactions among people and contribute to economic and social development.” The role of social capital may play a part in farming a beginning farmer success in Missouri. Social capital is defined as a group of individuals working together to achieve a common goal (Rivera et al., 2019). For social capital to be effective, there must be a great amount of established trust (Rivera et al., 2019). Social capital is categorized into two groups bridging and bonding (Rivera et al., 2019). Bonding social capital according to Rivera et al. (2019) is known as, “the interactions between members of the same group and is manifested as loyalty and trust within families and close related people.” Bridging social capital on the other hand is defined by Rivera et al. (2019) as “interactions between people from different groups and implies trust in others, vertical social networks and inclusion.”

Measuring Social Capital. According to Grootaert and Van Bastelaer (2002), social capital comprises two elements known as structural social capital and cognitive social capital. Just as there have been many definitions of social capital over the years, so too have there been many ways to measure social capital. Structural social capital is social structures like networks, associations, and institutions (Grootaert & Van Bastelaer, 2002). Cognitive social capital embodies intangible elements, including norms of behavior, shared values, reciprocity, and trust (Grootaert & Van Bastelaer, 2002). While the two can complement one another, one type of social capital can exist without the other. For example, according to Grootaert and Van

Bastelaer (2002), structural social capital organizations such as government organizations may not necessarily incorporate cognitive social capital. On the other side, strong relationships resulting in trust can occur without resulting in a formalized group. This can be seen in the friendships that farmers have made with other farmers or the strong family ties a new farmer may have with their farming grandparent.

Social capital can be observed in three different levels: micro, meso, and macro (Grootaert & Van Bastelaer, 2002). Social capital studies at the micro level examine the networks of individuals and households and the norms and values that form these networks. This would take place when examining a family farm and working with the individuals who make up that farm. Meso level studies look at relations among groups of individuals. This can be seen when evaluating the relationship between program administrators and beginning farmers. Finally, the last level, macro according to Grootaert and Van Bastelaer (2002) is observed “in the form of the institutional and political environment that serves as a backdrop for all economic and social activity, and the quality of the governance arrangements.” Grootaert and Van Bastelaer (2002) say the purpose of research at this level is to put social capital in the realm of “institutional economics, which posits the quality of incentives and institutions (such as the rule of law, the judicial system, or the quality of contract enforcement) is a major determinant of economic growth,” beginning farm example according to (Grootaert & Van Bastelaer, 2002).

Figure 1 illustrates the scope of social capital to demonstrate the breadth of this concept (Grootaert & Van Bastelaer, 2002). The purpose of the three levels is to allow for complementary and substitution between the levels. The different levels can enhance one another, resulting in positive development of social capital (Grootaert & Van Bastelaer, 2002).

For example, a study took place examining the different layers of social capital and how it affects farmers and herdsman in Mongolia (Li et al., 2022). According to Li et al. (2022),

The research results demonstrated that social capital, as a norm of shared resources produced by social structure and social network, offered a potential measure to mitigate the negative effect of production mode difference on subjective well-being. On the one hand, collective and individual social capitals were mutually replaceable in the influence of subjective well-being of farmers and herdsman. Thus, collective social capital can be increased to make up for the negative impact of individual social capital shortage on the subjective well-being of farmers and herdsman.

Since social capital affects a variety of disciplines in social science, there are numerous perspectives on what social capital is. The first perspective, the communitarian perspective, looks at social capital in the sense of local groups and associations (Grootaert & Van Bastelaer, 2002). This perspective fails to examine cognitive elements such as values, norms, and trust. The network view examines relationships in the group (Grootaert & Van Bastelaer, 2002). This view pays close attention to the overall benefits social capital can provide to community members. The third view, the institutional view, explores how the political, legal, and institutional atmospheres can determine the strength of community members (Grootaert & Van Bastelaer, 2002). This type of view is primarily for the macro scope of social capital. The last view, synergy, combines all three levels, macro, meso, and micro, and covers all sections of Figure 1, focusing on all relationships between and within government sectors (Grootaert & Van Bastelaer, 2002). For examining the utilization of social capital for beginning farmers in Missouri, the best approach is to examine social capital at the meso level. While other levels with intersect, different types of groups will be compared and examined to how social capital is utilized.

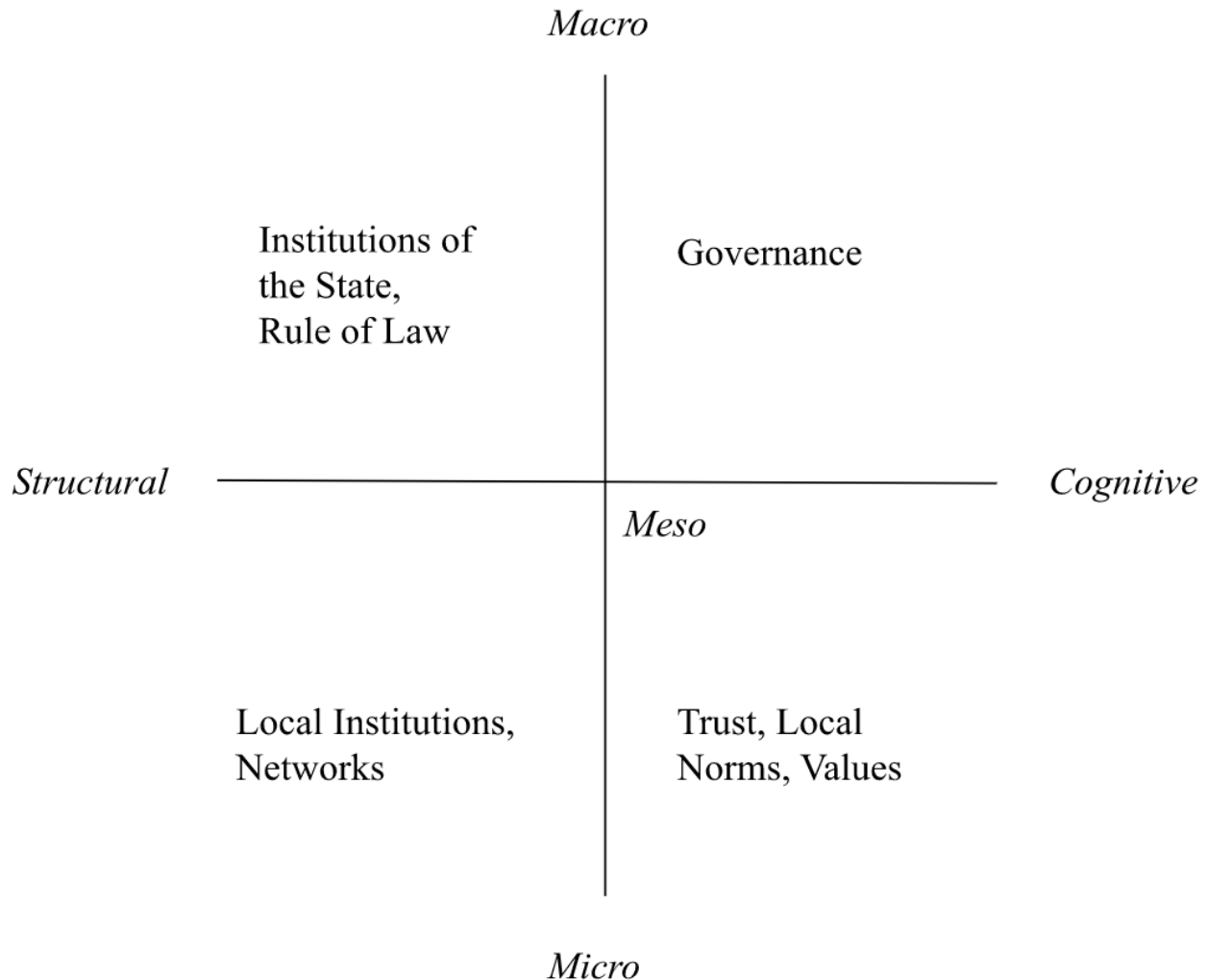


Figure 1. This figure models the breadth of Social Capital and how it is organized.

It is important to note that when utilizing social capital in research, it is a broad concept which can cause difficulty when making conclusions. Grootaert and Van Bastelaer (2002) said,

The potential weakness of using such a comprehensive concept of social capital in research and development programs are that it may be too broad to draw specific conclusions about the role of attitudes, behaviors, or structures. In other words, by trying to be a catch-all concept, social capital may end up capturing nothing. Our experience with Social Capital Initiative suggests, however, that when cautious researchers develop methodologies and indicators that match the specific concept that they choose, they can produce solid and verifiable results (P. 5).

When measuring social capital, it is important to have a solid understanding of the phenomenon because there is a large breadth to the concept (Grootaert & Van Bastelaer, 2002). When measuring social capital in agriculture it is best to understand how beginning farmers utilize social capital. Since there is a gap in the literature regarding social capital in Missouri agriculture, it is important to note this weakness.

Social Capital in Agriculture. As was previously discussed, there are numerous challenges beginning farmers face while government programs have existed for many years, producers still struggle to enter the industry. A potentially overlooked concept may be social capital. To help combat the issues beginning farmers face such as lack of resources and finances, farmers may be utilizing social capital.

Social capital is an effective method to help farmers meet their goals (Kehinde et al., 2021). A quantitative study applying the Sustainable Livelihood Framework (SLF) was utilized to test how necessary social capital was for farms (Kehinde et al., 2021). To study social capital, the researchers explored,

household demographic factors, farm attributes and institutional factors, which is measured by individual group members' decision to borrow. The next stage is the level of participation in social groups, which is measured by the amount farmers borrowed. This is influenced by an additional set of social capital dimensions (Kehinde et al., 2021).

This study aimed to test how social capital can increase productivity and ultimately assist farmers with the challenges they face. The results demonstrated there was a significant productivity increase with positive social capital and farmers (Kehinde et al., 2021). "It is evident from the two-way causal relationship between social capital and farm productivity and

food security that social capital groups greatly improve farm productivity and food security of cocoa-based farming households.” (Kehinde et al., 2021).

Farming is a diverse industry presented in various forms throughout the world. In the Mekong Delta of Vietnam, through social capital, farmers have been able to overcome specific challenges such as poverty and farmers leaving the industry (Tuan et al., 2014). Tuan et al. (2014) mentions the difficulty of measuring social capital due to the various viewpoints of the phenomenon. Tuan et al. (2014) measured the study by examining “trust, norms (for example, of reciprocity), and networks (or memberships) that facilitate collective action for mutual benefits.” Due to changes in social capital, farmers have noticed an increase in modern rice varieties, but because of the shift, smaller farmers have been forced to sell land (Tuan et al., 2014). To support each other during the difficulties of farming, according to Tuan et al. (2014),

Farmers reported that the major groups they make daily contact with are their friends, neighbors, and relatives. They frequently meet with these people to discuss issues related to agricultural production. The three most commonly discussed issues are crop production, purchase of agricultural inputs, and marketing of farm produce.

Further, social capital affects cooperatives and management in general (Snider et al., 2017). Through a study analyzing social capital and sustainable coffee certifications in Costa Rica, the effect of social capital and management was explored (Snider et al., 2017). Snider et al. (2017) measured his research by comparing bridging and bonding capital.

The research supported that management is affected by social capital by incentivizing certified members, distributing the profits from certification, and cooperating with outside organizations (Snider et al., 2017). For social capital to work according to the research, trust plays a large role (Snider et al., 2017). Trust is defined by Rivera et al. (2019), “as the firm

belief in the reliability, truth, or ability of someone or something.” This is a core building block for strong interpersonal relationships (Rivera et al., 2019). These strong relationships allow people to work together and utilize social capital by sharing equipment and information (Rivera et al., 2019). Agriculture looks differently worldwide, therefore social capital in agriculture will vary. Trust, tradition, cooperation, and community play a role in agriculture and social capital (Rivera et al., 2019), social capital cannot be built quickly (Rivera et al., 2019). Over a long time, social capital, specifically trust, quality of relationships, community, culture, and tradition must grow (Rivera et al., 2019).

While there has been little research in the social capital has for beginning farmers is a topic that has little research (Flanigan & Sutherland, 2016). Two case studies were examined on the Scotland borders and northern Scotland where machinery rings were first created (Flanigan & Sutherland, 2016). A machinery ring is a group of people that come together and share equipment and grow their social networks (Flanigan & Sutherland, 2016). Thirteen stakeholders were interviewed for the case study and 39 focus groups were held containing farmers of various backgrounds. Flanigan & Sutherland (2016), found machinery rings created formal networks demonstrating social and capital resources and the rings provided economic assets resulting in successful business development by creating new social networks. The rings allowed producers to react to changing market conditions (Flanigan & Sutherland, 2016). Through social networks, farmers were able to lean on other individuals during difficult times (Flanigan & Sutherland, 2016). With the machinery rings, relationships were built, allowing economic assets to become available through social capital resulting in successful farming development (Flanigan & Sutherland, 2016). Much like Flanigan’s & Sutherland (2016) machinery rings, previous studies have found producers rely on the support of family and friends to borrow equipment (Rohwer,

1949). With machines costing upwards of \$250,000, strong relationships must exist. Therefore, it is an opinion that social capital plays a vital role in beginning farmer success.

Research Objectives

Social well-being and economic growth can occur because social capital bridges the two together (Vera-Toscano et al., 2012). Social capital is crucial for a farmer, and the farmer must know how factors can affect social capital such as networking and cooperation (Vera-Toscano et al., 2012). Innovation and adaption for farmer's resources must continue to occur to meet the needs of the economy (Vera-Toscano et al., 2012).

Social capital plays an integral role in the lives of individuals in agriculture throughout the world. However, due to the gap of how research affects farmers in the United States, specifically beginning farmers, this raises the question how does social capital affect beginning farmers in the state of Missouri?

This research aims to answer the following two questions:

- *What role, if any, in the state of Missouri does social capital play in beginning farming success?*
- *Is there a difference in the role of social capital for those participating in beginning farmer government programs in the state of Missouri versus those who are not participating?*

The objective of this research is to identify how farmers are entering the industry through the lens of social capital with the goal to improve policy for future beginning farmers in Missouri.

METHODS

This study takes an exploratory approach to broadly examining how social capital impacts beginning farmer success. This approach is used to understand a single concept or phenomenon in great detail. Because the study is exploring a phenomenon, the research team felt it was best to utilize a qualitative research approach. According to Merriam and Tisdell (2016), “the overall purposes of qualitative research are to achieve an understanding of how people make sense out of their lives, delineate the process (rather than the outcome or product) of meaning-making, and describe how people interpret what they experience” (p. 15). Qualitative research is organized with categories or themes instead of variables to better understand the experiences of the individuals (Creswell, 2014). The purpose of qualitative research is to understand how individuals interpret their experiences and find meaning behind them.

It is important to note that qualitative research is quite different than quantitative research. Merriam and Tisdell (2016) provide an example “rather than studying retired adults to find out the percentage and characteristics of those who take on part-time jobs after retirement, which could be done through a survey, we might be more interested in how people adjust to retirement, how they think about this phase of their lives, the process they engaged in when moving from full-time work to retirement, and so on (p.6). The ultimate purpose of this research is to understand the why, leading to a qualitative design. Instead of examining how many farmers utilize social capital, this study aims to see the bigger picture of why and how farmers are utilizing social capital and what affect that has had on them. According to Johnson (2013)

social capital is an efficient interdisciplinary concept for explaining how self-interested individuals engage in collective behaviors and maintain social order. The principal

components of social capital are: (1) social networks of individuals who exchange reciprocal cooperation and build collective resources, and (2) individual gains in personal resources by taking advantage of social networks.

This leads to discovering:

- *What role, if any, does social capital play in beginning farm success?*
- *Is there a difference in the role of social capital for those participating in beginning farmer government programs versus those who are not participating?*

Specifically, this study looks to examine how farmers work together to overcome the barriers of becoming a farmer in the state of Missouri.

Research Design

This qualitative study utilized secondary data from focus groups that were conducted in 2018. All data was deidentified and as such did not require IRB approval. According to Maxwell (2021) the purpose of qualitative approaches “involves understanding the processes by which a situation or event acts on subsequent situations or events; it aims at explaining the phenomena studied—learning how they occurred, rather than simply describing or predicting them.” Focus groups are designed to gain a better understanding of a phenomenon through a group of people who have experienced the phenomenon (Krueger & Casey, 2015).

The data was initially collected to examine what barriers and opportunities existed in the state of Missouri as it related to beginning farm programs. This makes the focus group data used in this analysis secondary data. According to Merriam and Tisdell (2016), “Secondary sources are reports of a phenomenon of interest by those who have not directly experienced the phenomenon.” While the previous study looked for challenges and opportunities, this study

analyzes the data through the lens of social capital. This study will examine participants answers to see what, if any, social capital concepts arise.

The focus groups took place in the summer of 2018. This study in total analyzed, eight focus groups targeting beginning farmers from the state of Missouri who utilized beginning farm programs, those who did not, and program administrators. The purpose of these focus groups was to allow farmers to assess the challenges of beginning farm programs and discuss how these farmers overcame these challenges through social capital. Participants also shared their reasons for participating or not participating in these programs. The focus groups were conducted in various regions of the state of Missouri as follows.

- Missouri State University's Bond Learning Center in Springfield, Missouri
- Missouri Farm Bureau Headquarters in Jefferson City, Missouri
- The University of Missouri's Mumford Hall in Columbia, Missouri
- The Drury Inn and Suites Conference Room in St. Joseph, Missouri
- The Missouri Electric Cooperative Building at the Missouri State Fair in Sedalia, Missouri
- The Missouri Pork Producers Association Headquarters in Columbia, Missouri

As can be seen in figure 2, every effort was made to include Missouri beginning farmers from across the state. Numerous recruitment tools were used to gather participants for the study. Grass root association organizations including Missouri Farm Bureau, Missouri Corn Growers Association, and Missouri Soybean Association, were contacted to reach out to encourage their membership to participate. A short video was created and posted on Missouri Farm Bureau and Missouri State University Darr College of Agriculture's social media platforms. Participants who were interested in participating were asked to reach out to the research team to demonstrate initial interest, and a follow-up email was sent to the participant. Additional participants were then found through a purposeful snowball method. This

is a common form of purposeful sampling known for “locating a few key participants who easily meet the criteria you have established for participation in the study,” (Merriam and Tisdell, 2016 p. 98). As each participant refers a new participant, the snowball grows.



Figure 2. This figure displays the locations for focus groups to show the efforts that were made to encourage farmers from all regions to participate.

Participants completed a short screening process to determine eligibility including that they farmed in the state of Missouri and had participated or not in a beginning farm program. After participants were gathered for the study, meeting locations and dates were

selected. Participants came from a variety of backgrounds including livestock operations, crop operations, and diversified operation. These operations include beef cattle, hogs, dairy cattle, poultry, sheep, goats, corn, soybeans, wheat, sorghum, hay, and specialty crops and mixed production. According to the research team, this diversity of operations and experiences was done purposefully. As an exploratory study and with little previous research used in Missouri to off of, a wide net was cast to allow for expanded possibilities. The top five commodities produced in the state of Missouri are soybeans, corn, cattle, hogs, and boilers (Missouri Department of Agriculture, n.d.)

Institutional Review Board

This study used secondary data. The original study was granted approval by the Missouri State University Institution Review Board (IRB) which requires all studies at Missouri State University that include human participants to be examined and reviewed significantly to ensure the safety of participants and to ensure ethical and humane practices are occurring. For a study to be approved, the benefits must outweigh the potential risks that can occur. Since this study uses secondary data, IRB approval is not necessary. It is also important to note that permission was given by the original researcher to use focus group transcripts to answer the research questions; see Appendix. Redacted transcripts were provided to protect the anonymity of the focus group participants and no potentially identifying information was shared. A copy of the approval letter can be found in the appendix as can the letter of consent from the original researcher.

Participants were asked to sign a consent letter containing information about the potential risks and benefits, safety precautions, and the opportunity to end their participation in the study at any moment. The letter explained how each focus group was to be transcribed, audio

recorded, and videotaped. To provide confidentiality for participants, participants were not identified, and pseudonyms were used in place of real names. Additionally, to protect identity, all information and data analysis was stored on a password-protected university computer in a locked office that was not connected to the internet.

Protocols

To increase the validity and quality of questions before the study began, one pilot test was organized and conducted. From there, revisions were made to surveys and protocols, and the research team agreed questions were properly and adequately formatted for the study. Additionally, after each focus group, the research team debriefed and discussed preliminary findings. After eight iterations, the research team felt confident saturation had been achieved. To ensure credibility, researchers utilized saturation. Saturation is to ensure no new information is present or left out of the study. After the three focus groups were conducted, saturation was met.

Focus Group Procedure

The focus groups lasted approximately 60 to 90 minutes. Participants were greeted and welcomed by the moderator at the beginning of the meeting. From there, the purpose of the study and basic guidelines were explained. Before beginning the interview questions, each participant was asked to introduce themselves and describe their business operation and occupation.

According to Travlos et al. (2019):

The FG1 questions aimed to discover the participants' experiences regarding the beginning farmer government program(s) they had taken advantage of. Questions were developed to determine what, if anything, made it possible for them to participate in the programs, what made the process difficult, how they learned about the programs, challenges they faced, improvements they suggest, and so forth. Another question led to a discussion of off-farm income (P. 32).

Focus Group 2 (FG2) was comprised of Missourians who were unable to participate in any beginning farmer government programs. This group included those who ultimately decided not to apply for a program and those whose applications were unsuccessful (P.32).

Focus Group 3 (FG3) was a sample of beginning farmer government program administrators. This group provided a different perspective and identified challenges administrators felt applicants were struggling with and also ascertained their perceived success of the programs to achieve their designed goals (P. 32).

After each focus group, the moderator summarized the session out loud and confirmed with participants if they agreed with the summary or if anything needed to be added or amended. This is called member checking (Burke et al., 2022). Due to this process, data was more valid (Wilson, 1996).

It is important to note that two additional focus groups were conducted but were not analyzed for this study. Travlos et al. (2019) says this focus group

consisted of those working directly with beginning farmers and ranchers. This was especially in regard to adult agriculture educators and extension specialists, as these individuals are in constant contact with beginning farmers and ranchers as they develop educational classes, farm business management programs, and advise local Missouri young farmer groups.

The researchers for this study felt it was best to exclude these focus groups from this study because they were not utilizing social capital or working with individuals who may have used social capital to overcome the difficulties of beginning farmer programs.

Screening Process and Participant Selection

For this study, 45 people participated in the focus groups as follows.

Focus Group 1 (FG1): Current Missouri producers who participated in beginning farmer programs.

- Repetition 1: Held on July 13, 2018 with 5 participants
- Repetition 2: Held on July 18, 2018 with 5 participants
- Repetition 3: Held on July 27, 2018 with 5 participants

Focus Group 2 (FG2): Missourians who did not participate in beginning farmer programs

- Repetition 1: Held on July 28, 2018 with 5 participants
- Repetition 2: Held on August 8, 2018 with 4 participants
- Repetition 3: Held on August 12, 2018 with 7 participants

Focus Group 3 (FG3): Program administrators

- Repetition 1: Held on July 2, 2018 with 7 participants
- Repetition 2: Held on July 9, 2018 with 7 participants

Refreshments were provided for participants, and each participant received a \$10 gas card and a small Missouri State University gift. Participants were unaware of the gifts prior to coming to the focus group. Before the questions began, participants were asked to fill out a survey regarding demographics, operations/occupations, program awareness, and levels of off-farm income.

Data Collection

Data was gathered by collecting field notes, audio recordings, and video recordings, which were then transcribed. During the focus groups, two researchers took field notes to provide insight on responses to the questions, document individuals not actively participating, attitudes, body language, expressions of the entire group, etc. After the final question, the moderator summarized the discussion with the research team and participants had an opportunity

to clarify their statements or add additional information through a process called member checking. The purpose of member checking is to verify the findings with people who were interviewed to help rule out the possibility of misinterpreting the information and identifying biases. For accurate data, video and audio recordings were implemented. To be less invasive, the video camera was set to the side of the room. To prevent certain details from being missed, the research team met to discuss field notes immediately following the session (Travlos et al., 2019, P. 34).

Data Analysis

From the 2018 transcripts of the focus groups, open coding was conducted paying attention to concepts related to social capital. This allowed the team to find overarching themes of utilizing social capital by beginning farmers in Missouri. By analyzing the transcriptions and determining appropriate codes, the research team could analyze how beginning farmers utilized social capital when applying for and participating in beginning farmer government programs. Coding is “the process of making notations next to bits of data that strike you as potentially relevant for answering your research questions,” (Merriam and Tisdell, 2016 P. 204). For this study, open coding was utilized. Open coding is known as being “open” to all possibilities in the data. Merriam and Tisdell (2016) describe this as going through the data line by line and summarizing the line with a concept or a few words off to the side on the margins or comment via computer. Open coding is acceptable to utilize when exploring a phenomenon that has not been studied before (Charmaz, 2006). Due to the lack of research examining social capital and its effect on beginning farmers in the state of Missouri. Open coding was used to explore new themes. For example, according to Hou et al. (2022),

The coders could create new codes if there were no appropriate existing codes in the manual: meanwhile, if their codes were different over the same answer, there would be a discussion until reaching consensus.

When examining social capital, it is best to look at common values and trust. (Hammer, et al., 2021). Hammer et al. (2021) says, “Organizations with high levels of social capital are characterized by social relations between the members of an organization based on mutual trust and understanding as well as shared convictions and values.” A study in conducted by Rivera et al. (2019) found significance of social capital with themes of reciprocation and cooperation emerging from their qualitative interviews. From their study Rivera et al. stated,

In our seven case studies, we found very different expressions of social capital. Often it was trust and the quality of relationships that played a central role. Vivid examples are the case studies in Spain, Denmark, Germany, Italy and Israel. Interestingly, in the same case studies, common interests and co-operation also played a key role.

Since social capital is a broad concept, there is a sense of discourse on what to specifically look for when analyzing social capital (Janković et al., 2021). Ultimately scholars agree on the following

Social capital is an attractive, and at first glance, simple framework for understanding social relationships and interactions: the more people trust each other and the more connected they are, the easier it is for them to achieve their intended goals individually and collectively (Janković et al., 2021).

When the research team began coding for social capital, the team was open to all themes emerging. The researchers looked for themes of social capital from community, trust, networks,

culture, reciprocity, and cooperation. After coding was complete, three themes were found: trust tension, reciprocity, and networking.

RESULTS

This chapter discusses the detailed results from the analysis of focus groups conducted. Codes were identified from the transcripts and created overall themes related to social capital. The themes identified in the results are how beginning farmers utilize social capital in Missouri. Further, the differences in these codes as they relate to those who participated in beginning farmer government programs are compared to those who did not participate in Missouri as it related to social capital utilizing social networks to meet a common goal. Specifically, the researcher looked for the utilization of social capital for Missouri beginning farmers. Social capital is defined by Tuan et al. (2014) as,

a concept that describes circumstances in which individuals can use membership in groups and networks to secure benefits. The concept helps explain how the problem of incentives for selfishness can be overcome to achieve a mutually beneficial cooperative way of getting things done.

From the focus groups that were analyzed, three themes emerged related to the category of social capital: Trust Tension, Reciprocation, and Social Networking

Theme 1: Trust Tension

The theme *Trust Tension* is defined as farmers desiring to have an honest and open relationship when it comes to their beginning farm operation. Many farmers felt trust was important, but they did not always feel trust was present especially with government program administrators. For farmers to be successful trust must be established at the start. When dealing with someone's livelihood like a farming operation, farmers are not going to discuss their

practices with just anyone. Farmers must have a sense of trust with those with whom they are doing business with and must know that the people they are working with are competent.

From the conversation, there was an overarching theme that trust was a crucial when starting a new farming operation. Participants discussed the bonds that were established from an early stage. One participant who participated in beginning farmer programs said,

You know our program technician in our [program] office grew up a quarter mile from dad so I have known her all of my life.

Due to the long-lasting relationship between the employee and the participant, the participant had a sense of trust with the government employee. Further, many said having a strong relationship allowed for better communication, but they did not always feel that level of trust with program administrators. Another participant stated,

I call my loan officer, and said, 'Hey! I need \$16,000' and he said, "Okay I will have it ready for you in an hour!' You know? I won't be able to do that with [program office]. So, there is something to be said for service of your customers once you do get it!

Other participants did not have a strong or trusting relationship with program employees. Beginning farmer programs require a substantial amount of paperwork and numerous encounters with program administrators. Some farmers felt as if this invaded their privacy and indicated a lack of trust from program administrators. One participant said,

That's almost insulting, to me! Uhm, I mean if they have to sign every check to make sure, that you are paying what they think you should pay and stuff like that I mean, part of being a farmer is owning your own business and being able to you know work your

cash flows yourself and pay your own bills and you know you're on your own.

Farmers recognize the importance of relationship and establishing trust. One participant said, *“There has to be some history or some connection, but that relationship has to be built.”*

From the perspective of beginning farmers who did not participate in beginning farmer programs, trust is likewise important; however, some stated the lack of trust and strong relationships kept them from participating in beginning farmer government programs. One participant said,

I mean you think about who actually end up going with for a commercial ag loan is a friend. You know a neighbor that we trust. You know these people in your county offices or whatever, they don't have time to meet everybody in the county but boy, if they did have that relationship I think it would be a lot more appealing to sit down and visit with them.

Another farmer who chose not to participate described the experience of a friend with program administrators brought about by persistent staffing issues. Traditionally, each county had an office staffed by a program administrator. However, as budgets tightened, a number of counties consolidated leaving two to three counties sharing one program administrator. In this instance, such an issue highlighted beginning farmer trust tension saying,

That's something where I don't trust! I'd rather trust a friend that works for our [program office] but then they send us to this office because I had a friend that took microloans out and they did the paperwork but then they had to go to a different county to finish it up and get the loan approved and that's what kind of got me scared. I don't know that person out there, don't know them really well or if they're motivated enough to get the paperwork passed.

When a farmer does not trust their program administrator but chooses to pursue beginning farmer programs it adds challenges along the way. Conversely, when farmers have

strong relationships with program administrators and employees farmers can trust the program employees to do their job and program employees can trust farmers to do their job as well. The ability to have an open an honest and open relationship can lead to a smoother process overall. Further, an absence of trust can prevent beginning farmers from participating. This did not always mean the farmer actively distrusted the beginning farmer government employee, but also stemmed from having a previously established relationship with other individuals who could help them access credit, such as their local lender. Once participants said,

I went and asked several local bankers and I said, ‘what are your thoughts of the beginning farmer loan?’ and they all said the same thing. They said they’re great if you need them, but every one of them told me the worst thing about them is when you do it they take every asset that you got available. So, when it comes time to get an operating loan you’ve got all of your assets tied up. You’ve not got anything and that was they’re concern.

Program administrators also recognized the importance of trustful relationships but noted the state of these relationships as they stand today. One program administrator said,

Used to we’d meet, us county supervisors back in the day, met with that family every year and a year-end analysis and that was a very strong relationship they had and (name’s) got lifelong friends that still hug him to this day. You know? Even though they cussed him out a time or two. But they just formed a strong bond. We don’t have that same interaction today as we did in the past.

Theme 2: Reciprocity

The second theme, *Reciprocity*, is when individuals return each other's favors for the overall benefit of the community. Farmers are using their social capital to enter the industry by relying on their social networks through reciprocity by collaborating and sharing different

resources. Many farmers stated in the focus groups they want to see future farmers succeed in the industry. Since established farmers typically do not have the funds financially to assist beginning farmers with purchasing land, farmers turn to other means to help new individuals enter the industry. For this to happen many farmers offer assistance such as equipment. After taking out loans for land, many farmers become over-leveraged and have to rely on their social networks and borrow equipment. These farmers are specifically utilizing social capital. As one participant who participated in beginning farmer programs said,

Yeah, I mean, we share quite a bit of equipment. For us there is no other way to make it work on the land side. We don't necessarily share any land. So, it's all specific but yeah, I don't know any generational operations that don't share equipment.

Another participant said,

I get paid by my dad and uncle a small amount, not near, but you know part of buying the farm and then I use their machinery it's all a tradeoff.

However, reciprocity is not limited to family. Other participants discussed how they would work with more established farmers to help with equipment costs saying

My husband, he does work off the farm, but they trade labor out he works for a big farmer and he combines our crop and sprays and all of that stuff so that helps with that.

While reciprocity was commonly leveraged with beginning farm programs, reciprocity was also found to hinder participation as well. As highlighted by a farmer who utilized operating loans but ultimately decided not to utilize additional programs because of how their operation was structured said,

I know one thing we ran into; I had my own operation but it's in conjunction with my dad and my brother and we all operate separate entities. And we put up several grain bins in the past few years and you know there's the farm storage facility loan program, but the reason we didn't go through that is because all of the grain bins are all on dad's land where the other bins are! But my brother and I own two or three of them ourselves but we didn't want to have to have dad have a first lien on a property, but where the grain bins are, because it's not our property, but yet it would have been a whole lot cheaper to borrow through the farm storage facility loan program. So that was a barrier for us is not wanting to take the first lien on, its family property and eventually it'll be my brother's and mine but it's not right now and won't be for several years.

Many said that without utilizing friends or family, it would not be possible to run their operations. Many rely on their friends and family to succeed in the industry.

Our machinery wise in our situation there I guess you could say is, you know, dad owns the core of it and then as we need to add a piece or whatever we bought something that worked for the whole operation not just for me!

The farmers who did not participate in beginning farmer government programs recognized the importance of relying on reciprocity as well. As one said,

A 22-year-old trying to go out and buy 40 acres in my area would have a hard time trying to get that done. He's going to have to have either dad or grandpa or somebody there... I was lucky in that the land that I bought was from family. So I had the time to be able to do that, but a lot of times, there's only one chance and one chance only for a long time to get that piece of ground bought.

Another mentioned, *"I mean everything is so expensive. How do you get started if you don't have family in it?"* This farmer did not understand how anyone gets started in the industry without borrowing equipment from an established farming family member. From this study,

many farmers would not be able to enter the industry if they did not borrow equipment from family members.

Program administrators recognize the importance of reciprocity as well. According to one program administrator,

Kind of the stereotypical beginning farmers that we see is he might be 22 but he might be 35. Perhaps he's renting acreage already, usually maybe doesn't have his own equipment but has access to equipment from the parcel he/she is buying 5 miles from the home place. Or it joins grandpa's place, and they have access to equipment. They may not have their equipment but they have access to equipment.

Theme 3: Networking

Networking, the third theme, is defined as bonds created between individuals to provide supportive collaboration to meet a goal. Putnam and Robert (1993) defines social capital as "connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them." Many participants noted the importance of their networks as they entered the industry. As one participant who participated in beginning farmer government programs said,

My mom and dad's neighbor hit me up and he used to work for NRCS, and he said 'Hey you ought to come in and talk to me because there are some programs for beginning farmers that I feel like you could qualify for and do well with them'. And so, I went in and talked to him but it was just by happen-chance that, you know, he was the one brought it up! I didn't know they existed; it was him. It was 10 or 12 years ago, and I didn't have a clue about them. He hit me up about them.

Awareness was not the sole way networking played in beginning farmer success. Multiple farmers stated the beginning farmer process can be challenging. Farmers said that without

knowing someone who participated in the program, they would not be successful, completed the program, or participated in the programs that were available. Farmers stated how the amount of paperwork was overwhelming and difficult to understand and the many requirements that a farmer must meet demands help from other individuals. One said,

I think you just have to know that the average farmer or rancher is not going to be able to pull all of that information in themselves. So, they to talk with their current loan officer at whatever bank they use, or their tax preparer or whatever. You are going to have to have other people involved because it is not an easy process.

In addition to helping famers through the process, networking can also be key to finding appropriate and affordable farmland. When utilizing beginning farmer government programs, the processing time can be lengthy . In the focus group When land is sold through auction, it will not be possible to use beginning farmer government programs. Luckily, networking can be used to overcome this obstacle. Another participant stated,

I would say, the number one thing is finding a neighbor or somebody they know five or ten years may be getting out because it's going to take that long to put a deal like this together.

Those who did not participate in programs also saw the importance of connecting with established farmers and growing their social networks to gain connections with those who can help them start their new operation. One farmer stated,

However, as it turned out because of my family history, I guess I was spoiled or whatever. I walked into the bank that my father had done business with for 20 years and told them what I wanted to do, and he was like 'Okay' and said "well do I need to bring my dad up here?" and he was like 'no, I'm doing business with you.'

A number of participants noted their established networks allowed them to find funding beyond beginning farmer government programs. As one who did not participate said,

The key is a relationship because the banker in town said, 'I'd be stupid not to lend you money and I said I can get along good with you, that is good, but you know I couldn't tell you anything in [program office] because they don't come out of the office.'

Program administrators also noted the importance of networking to increase awareness of beginning farmer government programs. One said,

I don't know how many times I have gone out on a visit and, 'yeah my friend got one of these loans.' The best outreach I ever figured out is to treat one really, really good because they're going to tell their friends. And that's what they do, they go 'hey my buddy has a loan with you!' You can see it working. These new farmers talk to each other but they're not going to those traditional places where we used to find them. We got to find them some other way.

To be successful when participating in beginning farm programs, program administrators recommended connecting with program administrators to help grow the farmer's and their network. Another program administrator says,

They don't know all of the resources. They don't know everything that's out there, but I do. So just come to me and I can help you find what you need.

Summary

It is crucial to find people to rely on and support participants trusting their networks will help in the process of paperwork, equipment lending and knowledge about programs. Social capital plays a prominent role in beginning farmer government participation in Missouri, but how

exactly does social capital impact beginning farmers in Missouri. This study aimed to answer the following questions:

- *What role, if any, does social capital play in beginning farm success?*
- *Is there a difference in the role of social capital for those participating in beginning farmer government programs versus those who are not participating?*

Three themes were identified in how farmers utilize social capital when participating in beginning farmer government programs in Missouri: trust tension, reciprocity, and networking.

It is seen that farmers are able to enter the industry with the utilization of social capital. With the help of other individuals, beginning farmers are able to enter the industry by utilizing social capital beginning farm programs must address the trust tension many individuals face when working with each other and program administrators. Through social capital beginning farmers are able to overcome obstacles and learn about opportunities such as beginning farmer government programs. From the research study, those who come from a nonfarming background will struggle to gather the necessary equipment due to being over-leveraged and further exasperated by not having traditional social capital in agriculture.

Those who participated in beginning farmer government programs were able to better trust the program administrators because a sense of trust was established compared to those who did not have established trust with a program administrator. Additionally, both farmers who participated in beginning farmer government programs and those who did not participate in these programs relied on reciprocity. Without having individuals in the industry who are already established farmers who participated in beginning farmer programs and farmers who did not participate in the programs would struggle with their operation not having the necessary equipment. All participants agree that individuals must grow their social network in order to be

successful and learn about the various opportunities. Beginning farmers are growing their social networks by connecting with established farmers. Without trust from their social networks beginning farmers would not have had the connections and opportunities that lead to their success.

DISCUSSION

Beginning farmers have numerous obstacles to overcome when entering the industry (Travlos et al., 2019). One obstacle, specifically, is overcoming the challenges of beginning farmer program participation which aids in overcoming the numerous other challenges they face from the study, the utilization of social capital is a critical factor to enter the industry and participate in beginning farm government programs. Without the use of social capital, many farmers face even more struggles and have to turn to other methods to be successful such as relying on savings, which is not always feasible (Rohwer, 1949).

In previous studies, to overcome obstacles in agricultural production, individuals utilize social capital by accessing their social networks and using reciprocity. According to Flanigan & Sutherland (2016), when facing challenges to access the necessary equipment farmers have utilized social networks saying,

Machinery rings were initiated in Scotland based on a simple concept of machinery and labor sharing between farmers, facilitated by staff employed to manage the ring in order to make more efficient use of resources. As such the rings were fundamentally based on mobilization of social capital (i.e., creation of networks), which provided access to physical resources (equipment and labor) for farmers in exchange for financial capital. Machinery ring members can act as resource demanders and/or suppliers to the rings.

Additionally, in agriculture for farmers to be successful farmers must trust the individuals they are working with and to use social capital, trust is a prominent factor (Snider et al., 2017). According to Tuan et al. (2014),

It is clear that despite farmers having daily contact with lots of different people, when it comes to day-to-day decision-making, farmers tend to consult the relatives and friends

they trust the most and from whom they feel most comfortable making a request.

A surprising result of this study found farmers are utilizing their social connections to overcome obstacles when entering the industry. One issue that many farmers face is being over-leveraged which occurs when farmer have reached the maximum amount they can borrow (Rohwer, 1949). What happens is farmers are borrowing from government programs to purchase land but then are over leveraged and are no longer able to borrow additional money to purchase equipment needed to farm or have operating capital for everyday expenses. This equipment can include machinery such as tractors, combines, livestock, fencing, and other equipment that is necessary for the farming operation. What happens when purchasing equipment is not possible or achievable?

In our study, farmers utilized their social networks through reciprocity. This can be a family member, employer, or friend. Many times, social networks are family or friends who have been in the business for a number of years and want to help those just starting to thrive (Rohwer, 1949). Some examples range from sharing land to trading labor combining a field. These are ways farmers are able to enter the industry and overcome obstacles by utilizing reciprocation to be successful whenever the beginning farmer government program does not fully meet the farmer's needs.

A study in 2022 found that being connected with established operators can help with beginning farmer success (Parker, et al. 2022). Through connections with established farmers, new farmers can turn to these farmers who have already experienced various hardships (Parker, et al. 2022). Having established operators in a beginning farmer's social network can help new farmers navigate government programs, provide operation equipment, and operation production guidance (Parker et al., 2022).

Another finding was how important the role of trust is in beginning farmer program participation, and the tension that exists there with program usage. Trust is not something that can be built in a day (Snider et al., 2017). It takes time and patience to build a relationship with somebody, especially when dealing with something as valuable as someone's farm (Snider et al., 2017). A farmer needs to be able to trust the person they are working with. During the study, many farmers stated how they had known their program administrators for years. This trust took time to build. The farmer did not go out one day and start talking with the program administrator. The farmer either grew up down the street from them or they built this relationship over the years and so when the time came to begin farming, that trust was in place. Further, those not using programs have trustful relationships with other individuals.

On the other hand, the study also found farmers who did not have established relationships built with program administrators. When farmers have not established trust with program administrators for years, it creates a challenge for those who are just entering the industry when relationships are not established yet (Rivera et al., 2019). These farmers who did not have a relationship with program administrators faced issues causing the farmer not to feel valued. This caused the farmer to not want to participate in the program or work with the program administrator. Trust derives from shared perspectives and low levels of trust comes from an imbalance of power (Rivera et al., 2019). The imbalance of power can occur as well with beginning farmer program administrators, because they hold the power to decide who participates and who does not (Travlos et al., 2019).

When evaluating trust, it was seen that some of the beginning farmers said they did not trust the government employees did not feel as if they could have a close connection with the program administrators they were working with. According to Rivera et al. (2019), when trust is

present, cooperation is easier to access, which results in positive administrative interaction. This being said, it is best to start building those relationships early in the process. It is essential for the farmer to take the time to get to know the program administrators they are going to be working with (Travlos et al., 2019). One way this trust might be built is from working with previous program participants. When a previous program participant is involved, the individual can act as a bridge between the new participant and the program administrator helping answer questions and build a relationship between the program administrator and new participant. On the other side, program administrators need to be opened to having open conversations and learning about the goals the farmer has for their operation (Travlos et al., 2019). This may be difficult due to inadequate staffing levels in some areas. Having someone present who has previously engaged in the program can better facilitate conversation with the new participant. When trust is present, there can be cooperative relationships where individuals can depend on one another (Rivera et al., 2019). From our study, farmers felt heard and valued when trust was present for both parties.

Additionally, throughout this process, farmers recommended having a support system to turn to during difficulties. Utilizing social networks is a key component to being successful during the beginning years of farming (Rohwer, 1949). Almost every farmer in our study said that without the support and the trust from their own social networks, they would not have had the connections and opportunities they had to be successful in these programs.

CONCLUSION

When looking to the future of beginning farmers in Missouri, it is best to keep in mind the social situations that come into play. While beginning farmer programs are working to overcome the many barriers these farmers face, farm programs need to recognize the use of social capital. Specifically, programs must examine how trust tension, reciprocity, and networking can affect beginning farmer success.

Recommendations

Many farmers are able to rely on social capital to overcome the multitude of challenges beginning farmers face. However, beginning farmers who do not have social networks and capital tied to agriculture may struggle to get started and successfully utilize beginning farmer programs. Programs need to evaluate their true purpose. Currently, programs are failing to utilize social networks to help farmers be successful in the industry. Strong relationships were found to be the key to being successful in the industry. Whether that is having social support from family and friends or program administrators who can help them during the beginning farmer program application process. It appears these programs are mainly allowing existing operations to expand. To support additional farmers, it is recommended to look into implications for minorities and long-term growth. i.e. if less than two percent of the population is currently farming, how do we turn the tide to increase more farmers if that is the goal?

One way to better assist beginning farmers through the process would be to provide a mentor to help guide the participants through the process of beginning a farming operation. With the current process, many farmers felt as if they did not have a connection with the program

administrators they were working with. A mentor could help bridge the relationship between the program administrator and the farmer. The mentor could help answer questions and help the beginning farmer build their social network through connections.

One successful example of mentorship is farm incubators in North Carolina (Liang, 2018). Through this program, farmers are supported and provided with the necessary tools and resources and to start farming while provided with an opportunity to gain new connections with other farmers. Currently, farmers that do not have a social support system in the farming industry do not have the same opportunities as those who grew up in a family farming operation. From this research study, those who do not have family or friends in the industry or do not come from a farming operation will struggle to gather the necessary equipment due to being over-leveraged and further exasperated by not having traditional social capital in agriculture. For future farming policy, policymakers must look at the true purpose of these beginning farmer programs to serve our farmers better, specifically those not coming from an existing family operation.

Limitations

This study utilized qualitative data for the study. Because of the size of the focus groups, there are not enough participants to label this study as generalizable. However, there is impactful findings from the research.

This study is not a representative mix of livestock and crop farmers in the state of Missouri or for the United States. As such, these results are not generalizable. However, this study could still be used to improve future beginning farmer policies in other states as well as Missouri.

Another limitation of the study is the extensions use of economies of scale in Missouri. Since this study was conducted in the Midwest, it is important to note that operations in the Midwest are relatively larger than those on the east and west coasts but there is great diversity of operation in these regions. This could result in different findings if conducted in other regions (USDA, 2017).

The final potential limitation is nonresponse bias (Creswell, 2014) This happens when a participant who choose not to participate in the study has a different experience than those who did. There is not a way to avoid this in qualitative research, but it is important to note. In this study, all were farming which meant the farmers found a way to overcome the challenges of starting a farming operation. It is unclear if social capital was a critical factor or if others possessing strong social capital find themselves unable to farm.

Future Research

This study directly targets the state of Missouri. For future research, this study could be implemented in other states allowing unanticipated findings to be discovered. Additionally, this research could take place as a quantitative study. With the study being qualitative the data is not generalizable. Conducting a quantitative study could help identify what ways beginning farmers are utilizing social capital on a broader scale, to what extent, and the impacts it has on operation all while controlling confounding variables. The quantitative study would also help see if on a widespread scale how many farmers are using social capital to enter farming.

Summary

While society continues to grow and expand, feeding the future population of 9 billion continues to be of concern (DESA, 2019). For more farmers to enter the industry, future policy must look at how farmers are utilizing social capital. Beginning farmer programs must address the trust tension many individuals face when working with each other and program administrators. This may require hiring more staff and considering some of the ways programs have been advertised and communicated. Secondly, beginning farmer policy needs to keep in mind how farmers are working together to overcome challenges through reciprocation. Through social networking beginning farmers are able to overcome obstacles and learn about opportunities that are provided for beginning farmers. With the recognition of social capital in beginning farmer programs, these programs can better support beginning farmers and help them find their place in agriculture.

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APPENDIX: DATA PERMISSION

To Whom It May Concern,

I am writing to express my agreement and approval for the continued use of data collected for the Missouri State University Graduate Thesis project, entitled “Barriers Missouri’s Farmers Face Regarding Beginning Farmer Government Programs” (Travlos, 2019), for further research coordinated by either Mrs. Nichole Busdieker-Jesse or Dr. Christine Sudbrock. This research explored the perceived barriers to beginning farmer federal and state government programs for Missouri producers. Through the utilization of focus groups, the research identified major barriers such as: time, program awareness, program resources, and program requirements and eligibility. Aside from the barriers, the research also identified results in program positives and benefits. Altogether, the results of this research illustrated areas which could be improved and potential ways to improve the government programs, thus providing more and better opportunities for beginning farmers and ranchers. Federal and state governments have responded to the hardships beginning farmers and ranchers face by creating programs to mediate the identified challenges for new producers. However, hardships still exist for these producers and there is a lack of research on if the programs are providing the needed assistance to beginning farmers and ranchers. While this graduate-level project was a step in the right direction to fill that research gap, work remains to continue to investigate this important subject matter. Therefore, it is my desire for this thesis project, and the data collected, to serve as a “springboard” for further exploration on related research projects. Mrs. Nichole Busdieker-Jesse and Dr. Christine Sudbrock are equipped to utilize this data and the findings of the study in a responsible and productive manner to further examine this relevant topic. Should there be any questions, please do not hesitate to contact me at ben.travlos@mofb.org.

Sincerely,

-Benjamin J. Travlos

Reference: Travlos, Benjamin J. (2019). Barriers Missouri's Farmers Face Regarding Beginning Farmer Government Programs (Missouri State University Graduate Theses. 3375).