ASSESSING NEEDS AND MARKETING STRATEGIES FOR SMALL-SCALE HISPANIC FARMERS IN MICHIGAN

By

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ABSTRACT

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Hispanic farmers are the largest and fastest growing sector of minority farming groups in the United States. They are categorized as “socially disadvantaged” and most operate “limited resource” farms. In the Midwest, Michigan ranks first in the number of Hispanic farmers and, despite overall indicators of economic expansion of the agricultural sector, Michigan Hispanic farmers continue to show poor economic performance. The main objective of this dissertation is to analyze Michigan Hispanic farmers’ access to, and participation in, federal, state and community-based organizations and support programs that are designed to improve their farming conditions. In addition, this dissertation analyzes farmers’ marketing experience and ability to access local and regional markets that can increase farm income. Finally, the third objective is to analyze the use of social connections to access relevant marketing information in order to improve farm management.

This dissertation followed a case study approach. In total, 50 Hispanic farmers were identified using a combination of key informants and snowball sampling techniques. The data collection strategy included structured in-depth interviews and group meetings, surveys of farm and demographic characteristics, and participant observations. Results included qualitative and quantitative analyses which were organized in three different essays. The first essay presents the current social and farming conditions of Hispanic farmers in Michigan – their need for

production and marketing assistance and support, and their level of access to this assistance from federal, state or community-based organizations. The second essay explores Hispanic farmers' marketing experience, skills, and expectations for the future. The objective is to identify farmers' specific marketing needs and limitations, and areas in which government and community-based agents could assist these farmers' efforts to improve their marketing opportunities. Finally, the third essay illustrates the importance of social and business connections so that Hispanic farmers have more access to marketing information. In order to succeed and remain competitive in agro-food value chains, Hispanic farmers need to focus on mechanisms to access such important information.

The results suggest that Hispanic farmers in this sample generally do not use the resources available to them, and those who most need it are less likely to participate in programs designed to support their farm endeavors. While Hispanic farmers have been able to access local markets over the years, they still struggle with identifying and accessing new markets, and rely heavily on single-market strategies that increase dependence on these markets. They have not defined a marketing objective that would guide their efforts to improve their farm viability. Nevertheless, these farmers have an extensive network that can become a method to overcome marketing limitations. Nonetheless, they still face issues of limited connections outside their local markets, and lack of trust among other Hispanic farmers. Coordinated policies and outreach efforts among farmers, extension and NGO agents can help Hispanic farmers increase their participation in local value chains, and improve their farm viability

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

2007 Census of Agriculture…….……..	Census
Community Supported Agriculture ……..	CSA
Conservation Stewardship ….…….……..	CSP
Environmental Quality Incentives..…….……..	EQIP
Farm Service…….…….	FSA
General Education Development .…….	GED
Good Agricultural Practices ……..	GAP
Good Handling Practices……..…….….	GHP
High School Equivalency Program ……..……	HEP
Integrated Pest Management……..……	IPM
Michigan Department of Agriculture ..……..……	MDA
Michigan Food and Farming Systems……...……	MIFFS
Michigan State University ..…….…….	MSU
National Institute of Food and Agriculture……	NIFA
Natural Resource Conservation Agency ……..	NRCS
Non-Governmental Organization…….……..	NGO
Small Socially-Disadvantaged Producer ..…….	SSDPG
Sustainable Agriculture Research and Extension…..……	SARE
The Food, Agriculture, Conservation, and Trade Act of 1990…..…	Farm Bill
The Illegal Immigration Reform and Immigrant Responsibility Act	IIRIRA
The Immigration Reform and Control Act…..……..	IRCA
The Legal Immigration and Family Equity ……..……	LIFE
United States Department of Agriculture……..	USDA

CHAPTER 1

INTRODUCTION

Hispanic farmers are the largest and fastest growing sector of minority farming groups in the United States (Kandel and Cromartie 2004; Fry 2008) Around the country, Hispanic farmers have received considerable attention from government and non-government organizations (NGOs), because they are more likely to be beginning farmers and continue to be categorized as "limited resource" and "socially disadvantaged" farmers (Dismukes *et al.* 1997; Ahearn and Newton 2009; Kleiner and Green 2008). The U. S. 2007 Census of Agriculture (Census) reported a 14 percent increase in the number of Hispanic farm operators since 2002, significantly exceeding the overall increase in farm operators across the country (U.S. NASS 2009). Reportedly, Hispanic farm production exceeds 20 million acres of land, producing crops and livestock worth at least $6 billion, making it an important contributor of agricultural outputs (U.S. NASS 2009). However, despite Hispanic farmers growing importance in agricultural and rural communities, they struggle to increase their income and maintain their farm viability.

The United States Department of Agriculture (USDA) characterizes Hispanic farmers as "socially disadvantaged" farmers (Dismukes *et al.* 1997; FACT 1990). These farmers or ranchers are part of a group which has been "subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities" (FACT 1990), a situation that has prevented farmers from accessing important services to improve their farming condition. In addition – and also tied to their social condition – Hispanic farmers are more likely

to operate limited resource farms, which are operations in a given geographic area (*e.g.,* a state, county, or project area), which have distinct economic disadvantages when compared to other farmers' operations (Hoppe and Korb 2005). In a study conducted on behalf of the National Institute of Food and Agriculture (NIFA) (Swisher *et al.,* 2007), Hispanic farmers around the country confirmed numerous difficulties they face when striving to increase their income and maintain their farms. Among the most serious, Hispanic farmers struggle with access to information, knowledge about government programs and regulations, access to production resources (*e.g.*, equipment, land, and infrastructure), limited production management skills (*e.g.*, pest management, water availability), limited financial access, and marketing challenges. These issues represent barriers to improving their farming conditions (Swisher *et al.,* 2007).

Given Hispanic farmers social and economic struggles, the objectives of this dissertation are:

i) to analyze Hispanic farmers current farming conditions and to explore access to support from federal, state and community-based organizations,

ii) to analyze marketing experience, skills and specific plans to access local and regional markets

iii) to explore social and business connections to access relevant marketing information that could help them improve their farm management.

Regarding geographic scope, the analysis focuses on small-scale Hispanic farmers in Michigan. Michigan represents an important reference for Hispanic farmers in the Midwest, as it ranks tenth in the country, and first in the Midwest in the number of Hispanic farmers (U.S. NASS 2009). Despite overall indicators of economic expansion in the agricultural sector in

Michigan (Peterson *et al*., 2006), Hispanic farmers continue to show poor economic performance (U.S. NASS 2009). The Census reports that 53 percent of Hispanic farmers in Michigan reported total annual sales of less than $5,000 and more than 40 percent cite farming as their primary occupation (U.S. NASS 2009), confirming the importance of finding alternative strategies to increase farm viability for this segment of the farm population, and the need to include and address the types of support Hispanic farmers require to increase market participation and income.

The dissertation results were organized in case studies (Yin 1998). The selection of participants, data collection strategy and analysis of results followed a multi-method approach. A multi-method approach made possible that a large number of farmers could be included in this research and helped validate the results (Maxwell 2005). For the selection of participants, only farmers producing fruit and vegetables were considered for this research. This selection was necessary given that produce farmers differ from other farmers in terms of farm size, which tend to be smaller than other crops, and marketing channels, which are different from those used by commodities such as corn and soybean or other products such as milk. According to the Census, approximately 166 Hispanic farmers in Michigan are producers of fruit, vegetable and berries (U.S. NASS 2009). From this population, two methods were used to identify and recruit participants. First, key informants from different groups currently working with Hispanics in Michigan provided the names and contact information of some potential participants. Second, snowball sampling, in which one participant yielded a new set of contacts, provided additional potential participants. After these contacts were made, a total of 50 Hispanic farmers were identified and agreed to participate in this study from July 2009 to May 2010.

For the data collection, the study used a structured in-depth interviews and group meetings, survey of farm and demographic characteristics and participant observation during seminars, meetings and a farm conference. All participants followed the same line of inquiry to ensure that results could be compared from different people and from groups (Patton 2002). All the information collected from the survey and interviews was entered in NVivo software and coded for qualitative data analysis. Descriptive information from the survey was entered and analyzed in PWAS/SPSS software for data analysis.

The results were organized into three different essays. The first essay (Chapter 2) presents the current social and farming conditions of Hispanic farmers in Michigan, their needs for production and marketing assistance and support, and their access to this assistance from federal, state or community-based organizations. Hispanic farmers face unique challenges to assimilate and participate in agricultural and farming programs designed to support farmers and help them improve the viability of their farms. A large percentage of Hispanic farmers in Michigan do not use the resources available to them and those who need more support are less likely to participate in programs designed to support their farm endeavors. As Hispanic farmers become more involved in agricultural production and rural communities, access to relevant production and market information from the government and community-based agencies are very important to effectively help them deal with challenges in their markets and remain competitive.

The second essay (Chapter 3) explores Hispanic farmers' marketing experience, skills and expectations for the future. Studies on small business and rural entrepreneurship suggest that marketing experience, skills and clear expectations for the future are important personal

resources to access markets and improve business and farm viability. Thus, the objective of this essay is to identify farmers' specific marketing needs and limitations and areas in which policy and government agents and community-based organizers could support these farmers. The results suggest that while over the years Hispanic farmers have gained important marketing experiences and skills that have helped them access their current markets, they still struggle and need support to deal with different marketing issues such as access to new markets and heavy dependence on single markets. In addition, when asked about their expectations for the future, most Hispanic farmers have not clearly defined a marketing objective that would help them guide their efforts to improve their farm viability.

Finally, the third essay (Chapter 4) illustrates the importance of social and business connections for Hispanic farmers to access more marketing information. In general, marketing information is very important for farmers and farm management, because it represents an 'aid to decision-making' (Gofton 1997). Thus, for Hispanic farmers with limited access to marketing information there is need to focus on mechanisms to access such important information to succeed in agro-food value chains. Hispanic farmers who already have an extensive social network could use it as a feasible alternative to overcome marketing limitations. However, issues such as limited connections outside their local markets and lack of trust among farmers need to be addressed to fully benefit from their rich social network.

Hispanic farmers need innovative outreach and extension support that government and NGO groups can, and in some cases already, provide. Some initiatives include targeted training sessions with relatively small group of farmers. An important consideration to increase the number of participant is that training sessions, farm meetings or field days should accommodate

the needs of part-time farmers who work during the week and cannot participate during regular office hours. Bilingual sessions could help farmers get more acquainted with farm management jargon and specific marketing information. In addition, government and NGOs can help Hispanic farmers increase their number of connections to more businesses and in different markets.

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CHAPTER 2

HISPANIC FARMERS IN MICHIGAN: SOCIAL AND FARMING CONDITIONS AND NEEDS FOR ASSISTANCE

Introduction

Hispanics are the largest and fastest growing minority group in non-metropolitan areas of the U. S. While areas in the South were the traditional destinations for Hispanic immigrants, since the 1990s the Southeast and Midwest have seen the greatest influx of Hispanic migration. In the Midwest alone, the number of farms with a Hispanic operator increased by more than 200 percent in Kansas and Michigan, and 110 percent in Minnesota between 1992 and 2007. Other states – such as Illinois, Indiana, Iowa and Minnesota – have almost double the number of farms managed by a Hispanic operator. In the 10 year period from 1997 to 2007, while almost all Midwestern states saw a rise in the number of Hispanic farm operators, this increase in number was most dramatic (120 percent) in Michigan, ranking it first in the Midwest and 10th in the nation in the number of Hispanics as principal farm operators.

Although Hispanic migration is not a new event in Michigan, most studies on Hispanic migration have generally addressed migrants' working conditions in factories and farms, with very limited attention to those who farm. Though the percentage of Hispanic farmers in Michigan remains relatively low (around one percent) the number of farms managed by Hispanics as principal operators is growing rapidly, according to the Census and other studies. As this number increases, so too does awareness that this group of farmers – many who are just beginning to farm – need assistance in overcoming the characterization that they are "limited

resource" and "socially disadvantaged" farmers. This assistance is needed if the objective to support "the success of socially disadvantaged farmers and ranchers as they work to feed people in their local communities and throughout the world"[1] is to be accomplished.

Within the main objective of supporting and improving the farming condition of Hispanic farmers in Michigan, the specific objectives of this paper are: to update information about Hispanic farmers in Michigan, including demographic and farming characteristics; to provide information about their need and access to programs designed to promote farm viability; and to address specific needs for assistance to improve Hispanic farmers' access to markets and farm viability. To accomplish these objectives, this paper uses the result of surveys and interviews with 50 Hispanic farmers in Michigan from September 2009 to May 2010.

Currently, Hispanic farmers in Michigan still struggle with social disadvantages and marginalization. In addition, a large percentage of Hispanic farmers in Michigan do not use the resources that are available to them. Those who need more support are less likely to participate in programs designed to support their farm endeavors. As Hispanic farmers become more involved in agricultural production and rural communities, they need access to relevant production and market information from government and community-based agencies that will effectively help them deal with challenges in their markets.

This paper is divided as follows: first, it provides background information on main terminology used, and a brief historical review of Hispanic migration into Michigan and the Midwest to contextualize the current situation of Hispanic farmers. The second section describes

[1] USDA Agriculture Deputy Secretary Kathleen Merrigan
http://www.nifa.usda.gov/newsroom/news/2009news/12091_socially_disadvantaged.html

methods of data collection and analysis, the third section presents the results and, finally, a discussion summarizes the main findings, research limitations and areas for future research.

Background

Key terminology

Several concepts introduced in the 1990 U. S. Farm Bill and the Census of Agriculture are commonly used by USDA federal programs to characterize Hispanic farmers' social and farming conditions. In order to better understand the implication of these labels in the context of this investigation, the most relevant terms are explained in greater detail. First, this paper follows the U. S. Census of Agriculture (the Census) definition of "Hispanics." According to the Census, Hispanics are all people who indicate their origin as Mexican, Puerto Rican, Cuban, Central or South American, or some other Hispanic origin. Hispanics can be of any race (U.S. NASS). In more general terms, "Hispanic" is a label used to group individuals living in the U. S. who have some background, or are from Spanish-speaking countries, in Latin America (Hoy 2007). Other terms, such as Latino, Chicano, Latin-American, and Mexican-American, are also commonly used to describe this group. In this paper, all these different terms are grouped under the term "Hispanic" for simplicity and consistency.

A second term to clarify is the definition of "farmers". In this paper, Hispanic farmers are people who describe themselves as farm principal operators in the Census (U.S. NASS). According to the Census, principal operators are those "primarily responsible for the on-site, day-to-day operation of the farm or ranch business. This person may be a hired manager or business manager" (U.S. NASS). Considering this definition, principal operators do not necessarily own the land on which they farm. Hispanic farmers range from newcomers (*e.g.*,

immigrants from other countries), who may or may not own land they farm, to established individuals whose families have farmed for generations (Swisher *et al*., 2007).

The USDA considers all Hispanic farmers to be members of a group called "socially disadvantaged farmers". This term was first introduced in the Food, Agriculture, Conservation, and Trade Act of 1990 (1990 Farm Bill). The 1990 Farm Bill defined these farmers or ranchers as people who have been "subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities" (FACT 1990). In addition to Hispanic farmers, other farmer groups considered socially disadvantaged are African-Americans, Native Americans, Alaskan Natives, Asians, and Pacific Islanders.

The USDA also acknowledges that most Hispanic farmers operate "limited resource farms". These farms are operations in a given geographic area (*e.g.*, state, county, or project area) with distinct disadvantages when compared to other farms and farmers in the same geographic area. A farm qualifies as a limited-resource farm when it has gross sales of less than $100,000 in a given year, total assets less than $150,000, and total household income less than $20,000 in a given year (Hoppe and Korb 2005). In addition, household income is considered low when it is below the poverty level for a family of four, or less than half the median household income in a specific county in a given year (Hoppe *et al.*, 2007).

Finally, this dissertation follows the U.S. Census Bureau geographical division of regions. The main purpose is to facilitate comparisons among different studies addressing Hispanic migration and demographic changes in the Midwest. The Midwest, as indicated by the Census Bureau, is a geographic region comprised of the following states: Illinois, Indiana, Iowa,

Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

After clarifying the main terms used in this dissertation, the next step is to briefly analyze the most important historical events that have been identified as promoters of Hispanic migration to the Midwest, including Michigan. These events help to explain Hispanic farmers' decision to farm in Michigan and, to some extent, explain their current socio-economic condition.

Hispanic Farmers' Migration to the Midwest and Michigan

Overall, Hispanics have become the largest minority group in the U. S., and are the fastest growing minority group in non-metropolitan areas (Kandel and Cromartie 2004; Fry 2008). Historically, areas in the Southwest were the preferred destination of Hispanics immigrants. In recent years, non-metropolitan areas in the Southeast, Midwest and Northwest have seen the greatest growth in the number Hispanic immigrants (Naples 2000; Kandel and Cromartie 2004; Fry 2008). In the Midwest, all states showed an increase in the number of farms with a Hispanic principal operator between 1992 and 2007 according to the Census of Agriculture. However, from 1997 to 2007, the number of farms managed by Hispanic farmers increased 120 percent in Michigan, 67 percent in Kansas, 14 percent in Minnesota and 12 percent in Illinois, whereas Indiana, Nebraska, North Dakota, South Dakota and Wisconsin saw a decrease in the number of farms managed by Hispanic farmers during the same period (Figure 1). According to this data, Michigan has become one of the most important destinations for Hispanic farmers in the Midwest (Table 1).

Researchers who study Hispanic migration recognize different factors that have influenced migration and settlement in non-traditional regions in the U. S. Among the most

important factors were changes in immigration law and policies, job availability in the Midwest and the development of migrant networks. Simultaneously, all these factors played an important role in influencing the movement of Hispanics from traditional areas, such as California, Texas, and Mexico, to the Midwest and, eventually, to Michigan.

Three specific policy changes are believed to have promoted relocation of Hispanics from the traditional immigration areas of California and Texas to new areas in the U.S. First was, the Immigration Reform and Control Act (IRCA), second, the passage of proposition 187 in California, and third, the hardening of the borders in Texas and California (Hirschman and Massey 2008).[2] The passage of the IRCA gave amnesty to approximately 3 million Hispanics in the U. S., 54 percent of whom lived and worked in California (Martin 1996). One of the main consequences of IRCA was an enormous influx of newly legalized workers, in addition to the constant influx of immigrants with false documents who looked for jobs. These workers inundated the labor market in California, thus encouraging people to look for new opportunities in other states (Martin 1996; Hirschman and Massey 2008). The IRCA also stipulated a Special Agricultural Workers (SAW) program, which helped undocumented individuals working in agriculture to obtain legal residency, and later relocate to areas where demand for agricultural

[2] While the first wave of Hispanic migration started with the temporary farm-worker program known as "the Bracero Program" in 1942 which ended in 1964, this program promoted mostly migration to the Southwest and specifically to California. In the 22 years the program lasted, it was estimated that 4.6 million "braceros" entered and settled in the U.S. (Durand and Massey 1992). Later in the 60s and up until the 80s, special immigration programs allowed more migration of Hispanics from Cuba, Nicaragua, El Salvador and Guatemala under especial refugees visas (Hirschman and Massey 2008).

labor was high (Diaz-McConnell 2004).[3] In the 1990s, since most Hispanic immigrants concentrated in California, illegal migrants, as well as the newly documented workers, created an immigration crisis. Most Hispanic workers were unskilled and lack English proficiency which made it harder to find better jobs (Hirschman and Massey 2008). In addition, in the 1990s, California had an economic recession that prevented people from finding jobs. This situation influenced new legislation to prevent local and state agency spending on illegal immigrants (Hirschman and Massey 2008). Proposition 187 sought to ban undocumented migrants from using publicly provided services, including schools. It also required state and local institutions to report "suspected" illegal immigrants and made it a felony to obtain and use illegal documents (Martin 1996; Hirschman and Massey 2008). While the proposition was ultimately challenged and declared unconstitutional, it promoted more actions against immigrants, and gave a clear message to all legal and illegal Hispanics that they were no longer welcome in California (Hirschman and Massey 2008).

Another important policy that promoted relocation of Hispanics was the hardening of the borders in California and Texas. In 1993 and 1994, two programs – known as "Operation Hold-the-Line" in El Paso, Texas, and "Operation Gatekeeper" in San Diego, California – established high security to prevent illegal immigrants from crossing the borders. Although these procedures were successful in these two cities, the new wave of immigrants started crossing the border

[3] After IRCA, in 1996, the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) extended the provision to apply for permanent residents to migrants who entered the U.S. before 1988 and submitted their applications by January 1998. In 2000, the Legal Immigration and Family Equity act (LIFE act) extended the deadline of IIRIRA from January 1998 to April 2001 allowing more undocumented immigrants to apply for legal residency (Diaz-McConnell 2004).

through Arizona and the Rio Grande Valley, later moving north, relocating mostly in the Midwest and other non-traditional regions (Hirschman and Massey 2008).

Although policy changes were important, jobs created with the development of agricultural and wage labor markets were the most important forces promoting long-distance migration (Rochín, 1999; Diaz-McConnell 2004; Millard and Chapa 2004; Hirschman and Massey 2008). Millard and Chapa (2004) identified two paths of Hispanic settlement in the Midwest. First was the arrival of migrant farm workers, which mostly included people already born in the U. S. The second, most recent group came to work either in light industry or food processing jobs (Millard and Chapa 2004). The latter group usually migrated directly from Mexico, and already had jobs through informal recruitments, using Hispanic social networks before arriving in the U. S. (Millard and Chapa 2004; Parrado and Kandel 2008).

In the Midwest, around two-thirds of the migrants who arrived after 1980 worked either in the service sector or as laborers in low-skill and low-pay jobs (Saenz 1996). Most Hispanics were recruited and attracted to this kind of work because they did not require skills or English proficiency, there were few opportunities for immigrants elsewhere, and these jobs did not compete with the local workforce (Chapa *et al.*, 2004; Parrado and Kandel 2008). Immigrants who arrived in the 1990s and 2000s faced even more unfavorable conditions than their predecessors. The growing number of Hispanics did not find it easy to assimilate, often because they arrived without legal documents and had extremely low levels of education (Massey 2008). This disproportionate migration of undocumented young men with fewer years of formal education and lack of English proficiency contributed to the increase in the level of

disadvantages and the marginalization of Hispanics (Saenz 1996; Jefferds and Millard 2004; Kandel and Cromartie, 2004; Jensen, 2006).

Job availability influenced the growth and development of migrant networks (Durand and Massey 1992; Winters *et al.,* 2001). Migrant networks are composed of family, friends and "paisanos," or people from the same community who arrived to the U. S. before other groups, and settled in communities. Once a group of migrants were settled in a community, costs and risks were reduced for the next group of newcomers. Social ties, particularly labor ties, were easier to establish (Durand and Massey 1992). Family and community networks generated information and assistance to newcomers. Finally, once networks were established, migration became generalized, hard to stop, and dynamic (Winters *et al.,* 2001).

Migrant networks which allowed Hispanics to move to the Midwest are also believed to have helped migrants acquire land and become farmers (Garcia *et al.,* 2008; Leach and Bean 2008). In the late 1990s and the 2000s, the acquisition of farm land by migrants in the Midwest gained attention because most of these beginner farmers – people who have less than 10 years of experience managing a farm – are likely to be of Hispanic background (Ahearn and Newton 2009). As mentioned before, by 2007, almost all Midwestern states saw increases in the number of farms with at least one Hispanic principal operator, and these numbers more than doubled in Michigan between 1997 and 2007 (Figure 1).[4]

In addition to migrant networks, social capital and self-initiative have also contributed to the decision to farm. For example, in Iowa, Lewis (2009) found that farming was a strategy

[4] The 2002 Census of agriculture is not included in this figure because it accounted for up to three principal operators while the other censuses accounted for at least one principal operator of Hispanic origin.

Hispanic workers found to utilize human, social, cultural and financial household assets (Lewis 2009). Lopez-Ariza (2007) reported that Hispanic farmers in Michigan used their rural background in farm work as an opportunity to start a farm business (Lopez-Ariza 2007). In some cases, farm owners helped Hispanic farmers acquire and work their land (Lopez-Ariza 2007). Although most Hispanic farmers in Michigan had some farming background from either Mexico or seasonal farm work in the U.S., the decision to farm was not entirely guided by production and market knowledge (Santos & Castro-Escobar forthcoming).

Independence attached to owning land was also an incentive for some Hispanics to become farmers (Lopez-Ariza 2007; Lewis, 2009; Santos and Castro-Escobar forthcoming). In a small sample, Lopez-Ariza (2007) found that six out 12 Hispanic farmers saw farming as a way of being their "own boss" and make decisions about their property (Lopez-Ariza 2007). Similarly in Iowa, Lewis (2009) found that as small-scale farmers, Hispanic farmers could make a secondary income and become more independent from landlords and employers, and possibly diversify with other businesses (Lewis, 2009). However, their limited resource farming represents a challenge to maintain their farms.

Evidence from studies in the Midwest suggests that Hispanics preferred the small cities and towns because they represented an improvement in their quality of life. Rural areas had better schools, lower crime rates, affordable housing and other amenities (Leach and Bean 2008; Parrado and Kandel 2008). For example, the farmers in Michigan interviewed by Lopez-Ariza (2007) saw it as a way to escape the problems connected with living in poor areas of Chicago. After living in the city for 15 to 20 years, these Hispanics were able to afford land in Michigan with the help of their savings or relatives and friends (Lopez-Ariza 2007). Close proximity to

Chicago allowed them to maintain their off-farm jobs while transitioning into farming (Santos and Castro-Escobar forthcoming).

From these reviews it is possible to suggest that Hispanic farmers based their decision to farm on the opportunity to use their social capital, the independence attached to farming and the desire to improve their quality of life. However, what is not clear is whether Hispanic farmers base their investment in farming on economic and market factors. Therefore, lack of appropriate farm planning represents a barrier Hispanic farmers face in improving their social and farming situation.

Methods of Data Collection and Analysis

This paper followed a case study approach. As a method, case studies are well-positioned when the objective is to gain more knowledge about a specific group and the issues affecting this group (Yin 2009). The limited information about Michigan Hispanic farmers' access to, and participation in, federal and other outreach assistance requires an exploratory inquiry for which this framework.

The first step in this case study was to select the participants for this investigation. The selection followed a purposeful sampling technique. This sampling technique is generally used when the objective is to focus on specific groups and to learn more about specific issues affecting this particular group (Patton 2002; Kemper *et al*., 2003). In addition, purposive sampling provides more detailed information from smaller and carefully selected cases (Patton 2002).

Participants were identified using both homogeneous case and snowball sampling (Kemper *et al*., 2003). Homogeneous sampling selects key elements from a group to study. In this case, criteria to select farmers included: being defined as Hispanic according to the Census definition and the participants' knowledge of their ethnicity, being the principal operator of a farm or closely related to this person (*e.g.*, wife, husband, son, daughter), and being in charge of production and marketing. In addition, participants had to be producers of fruit and vegetables. This project excluded producers of grain and livestock commodities (*e.g.*, corn, soybeans, and beef) because they have different production and marketing channels. Finally, this project excluded Hispanic farmers who owned large-scale operations (*e.g.*, more than 500 acres of land) in Michigan.

The participants were also identified through snowball sampling and key informants. At the time of this research, there was no publicly available directory of Hispanic farmers in Michigan; thus, snowball sampling was critical to recognize and recruit farmers for the project. Once potential participants were identified, they were personally contacted by the researcher and asked to take part in the study. In total, 50 Hispanic farmers agreed to participate in the project from September 2009 to May 2010. During the recruitment process and before the interviews, a statement of their rights was explained to participants and they each received a confidentiality agreement.

The first step during data collection was to ask participants to complete a written survey[5] with information about their farms and their demographic characteristics, as well as questions about their needs for farm assistance, knowledge of federal, state and non-governmental programs for

[5] A sample of the survey questionnaire is available in Appendix A of the dissertation

farmers; and participation in farming groups or associations. After completing the initial questionnaire, each participant was asked to comment and explain their answers during a personal interview. For example, if participants indicated in their survey that they did not seek assistance, they were asked to provide reasons why. This mix-method approach provided more detailed information to understand the needs and challenges Michigan Hispanic farmers face, as well as clarification and triangulation to validate responses. In addition to the survey and interview, the data collected and analyzed as part of this research were compared (when possible) with information from the Census and other recent case studies.

The survey and interview information collected was entered in NVivo software for qualitative data analysis. Each question from the survey was represented by code. For example, the question "Have you received assistance from any federal, state, or non-profit organization?" was represented by the code "assistance received". Sub-codes were established to organize different responses. For example under "assistance received" two sub-codes, "have not tried" and "institutions" were developed to account for participants who never tried to access any assistance and those who specifically mentioned institutions from which they had or had not received assistance, respectively[6].

Descriptive information from the survey was entered and analyzed in PWAS/SPSS software. All the descriptive information is presented in tables. In cases where groups within this sample were constructed and compared, the corresponding Chi-square statistic was computed and reported in tables to determine the relationship among variables.[7] Lastly, the results are

[6] The coding scheme is available in Appendix B of the dissertation.
[7] Chi-square test is used to test for statistical independence of variables. If the test provides an indicator that variables are independent it means that there is no relationship between the

organized and presented in three different sections; first, a section with descriptive information about Hispanic farmers' current demographic and farming conditions; second, farmers' needs and access to assistance, and third, participation in federal, state or NGO programs or farmers' groups.

Results

Hispanic farmers in Michigan: current demographic and farming conditions

Hispanic farms in Michigan are mostly operated by relatively young male farmers. According to the Census, 13 percent are female principal operators, and 87 percent are male principal operators. Regarding age group, 8 percent of Hispanic principal operators are less than 35 years old, 69 percent are between 35 and 65, and around 24 percent are more than 65 years old. Looking at the results from this research, out of all participants (50 farmers), 78 percent were males and 22 percent were females (Table 2). Eighty-six percent of respondents were between the ages of 35 to 65, 10 percent were less than 35 years of age and only four percent were more than 65 years of age (Table 2). Compared to the Census data, this research included a slightly different segment of Hispanic farmers in Michigan, but, for the most part, results also reflect the Census findings that most Hispanic farmers are relatively young men.

Hispanic farmers in this sample have achieved relatively low educational levels and continue to struggle with language barriers. Only 40 percent of participants had some high school education. This included completion of some or all years of high school, participation in a

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variables. However, if the variables are related, the test will be "significant" and it is possible to establish the relationship between variables.

high school equivalency program (HEP)[8], and completion of general education development certificates (GED). Sixteen percent reached only elementary school levels, which included having had some years of elementary education, or finished it. Eight percent had some college education. On the other hand, 28 percent did not go to school in the U.S. and had had some education in Mexico. Finally, 9 percent did not go to school at all (Table 2). The result from this research and results from Lopez-Ariza (2007) confirm that Hispanic farmers' level of formal education in Michigan remains low (Lopez-Ariza 2007) and this could be an important factor limiting participation in different programs.

In addition to low educational levels, Hispanic farmers still struggle with English proficiency. Although participants were not directly asked about their level of English proficiency, they indicated a preference to continue the interview in Spanish or English. While most participants (84 percent) chose to continue the interview in Spanish, 30 respondents (60 percent) said they understood enough English to carry out a conversation (Table 2). However, other farmers mentioned that their limited English fluency was a barrier to access more information. As Massey (2008) found, low English proficiency combined with low educational levels contribute to Hispanic farmers' disadvantages and marginalization (Massey 2008).

Most Hispanic farmers in this study have a Mexican background and operate their farms in the southwestern part of the state. Regarding the country or region of origin, 64 percent of participants were originally from Mexico, 12 percent were from Texas and 10 percent from the Midwest (*e.g.,* Indiana and Michigan). Texans and Midwest migrants also had a Mexican

[8] The High School Equivalency Program (HEP) helps migratory and seasonal farm workers (or children of such workers) who are 16 years of age or older and not currently enrolled in school to obtain the equivalent of a high school diploma and, subsequently, to gain employment or begin postsecondary education or training (Source: Department of Education)

background. Only four percent were from other Latin American (LA) countries, and 10 percent did not answer this question (Table 2). More than 70 percent of farmers in this research operated their farms in Van Buren County. According to the Census, Van Buren County accounts for 34 percent of the total number of Hispanic principal operators in Michigan. Other participants operated farms in Ottawa, Allegan, Berrien, Oceana, Ingham and Lenawee counties, representing nine percent of the total number of principal operators according to the Census (Table 3).

Hispanic farmers described their farms as family-owned operations. Eighty percent of respondents described a "family farm" as one in which the main source of labor was from family members. Even when 14 percent answered that their farms were individually managed, they explained that they would most likely work with a spouse. While the principal operator is usually a male, 16 percent answered that females would managed most of the work (Table 4). Only six percent responded that their farms were rented, which meant that the respondent would take all responsibility for the farm management. Later, he or she would pay the owner of the land either a fixed amount (*i.e.*, monthly lease payment) or share of the total sales. As mentioned above, family members would usually help with farm chores and management. However, 44 percent of respondents indicated they would also hire people to help with production, usually during planting season in the case of vegetable growers, or during harvest, in the case of fruit growers (Table 4).

Hispanic farmers are mostly part-time farmers. Of all participants, 72 percent indicated they worked on their farms only part-time, while the remaining 28 percent indicated they were full-time farmers (Table 4). Part-time farmers usually work an off-farm job, and work extra hours on their farms during the growing season which, in general, runs from March to October.

Most part-time farmers had jobs in factories, some owned small businesses, and others provided different services (*e.g.,* mechanic, driver, sales). Only two farmers reported farming as a "hobby". Part-time farming among Hispanic farmers is consistent with overall farming trends in the U.S. where it is observed that, increasingly, small-scale farmers have off-farm employment (U.S. NASS 2009).

Regarding farm size, the average area farmed was 30.9 acres, with a maximum of 198 acres. Some farmers reported renting additional land. The area cultivated ranged from 0.25 acres to 88 acres, with an average area of 17.3 acres (Table 5). According to the Census, the average size of farms operated by Hispanic farmers in Michigan is 80 acres. This average includes production of other crops, which tends to be done on larger farms. Still, compared to the state average, Hispanic farmers in this study manage relatively small-scale operations. In terms of production, fruit producers tended to have bigger farms than non-fruit producers. Sixty-three percent of fruit producers farmed more than 5 acres of land, whereas 58 percent of non-fruit farmers were very small-scale and cultivated less than 5 acres (Table 6). According to the Census, the average vegetable production acreage per farm in Michigan is 59.4 acres, for fruits and nuts 44 acres and for berries 14.85 acres.

Consistent with Census data, Hispanic farmers' income from farming is very low, which contributes to categorizing their farms as limited resource. Fifty-two percent of respondents indicated that their income from farming was less than 25 percent of the total household income in a given year. Less than 20 percent of respondents received from one-fourth to three-quarters of their income from farming, while 26 percent received more than 75 percent of their income from farming. Two farmers reported receiving as low as $2,000 per year from the sales of farm

products. Two other farmers indicated that they were actually not receiving any income from farming at the time of the interview, but they were expecting to start producing in the next year (Table 7). The Census reports that more than 30 percent of Hispanic farmers received less than $1,000 annually from farm income, 50 percent received around $1,000 to $50,000 annually, and 17 percent received more than $50,000 in total annual income.

Access and Need for Assistance

The Hispanic farmers interviewed face several challenges toward improving the viability of their farms. First, their low educational levels were a disadvantage, as was the lack of access to information and support from the government and other organizations. Second, farm limited resources represent a challenge in terms of income that could help maintain farm viability. Given this situation, this section addresses specific assistance needs and the levels of access Hispanic farmers have to this kind of support.

In general, Hispanic farmers indicated a need for all kinds of assistance, but, in general, were not receiving any. In the survey, farmers were asked whether or not they needed assistance from agricultural agencies or organizations, specifically financial assistance. They were also asked whether they had received or been denied assistance for farm related activities. Out of 50 respondents, 58 percent said they needed assistance and, specifically, 54 percent needed financial assistance (Table 8). Only 22 percent had received some form of assistance for their farms, and 16 percent said they had been denied assistance (Table 8).

During the interviews, farmers offered more detail about the type of general assistance they needed. More than 30 percent of participants explained that they would like to receive more

training on production-related activities, such as plant disease identification and management, fertilizer requirements and usage for soil conditions, and information on pesticide usage and training needed to become a certified pesticide applicator. Other farmers indicated they would like assistance for installing irrigation systems and acquiring new buildings and equipment. From these comments, it is possible to say that Hispanic farmers still struggle with access to basic production management information. Around eight percent of farmers indicated a need for more marketing related assistance. This would include information about market locations, training on product specifications and how they can meet these requirements, information about Good Agricultural Practice (GAP) requirements and certification, and other opportunities such as organic marketing, or sustainable practices that would allow them access to other markets.

Regarding financial assistance, 22 percent of the farmers interviewed knew about the USDA Farm Service Agency (FSA), either because they had already applied for funding or had an application pending. This relatively low percentage can be considered an indicator of Hispanic farmers' knowledge and access to FSA funding. Among those farmers who had applied for FSA funding, the level of paperwork and proof of production income requirements (*e.g.*, not a hobby farm) were very difficult challenges to overcome. Private financial institutions were mentioned by 16 percent of participants as a main source for funding. In the opinion of two respondents, financial institutions had many requirements and were not open to working with small-scale Hispanic farmers. Likewise, only two farmers mentioned family as a source of funding for their farming activities. This was surprising, as previous research had shown that family members represented an important funding source when farmers started their farms in Michigan (Lopez-Ariza 2007). Finally, 20 percent of farmers did not know where they could get

financial support for their farms. Some of these farmers indicated that they usually do not think about it because they have never needed financial support, and in most cases they would usually not invest more in their farms than they could afford using their own money.

While most farmers felt a need for assistance, 66 percent indicated they had never received any kind of help (Table 8). Respondents indicated a relatively high level of frustration with regard to available assistance from the governmental sources and NGOs. For example, one farmer indicated he would go to extension offices, ask for production-related assistance and, though information was available, it was not what he need for his farm.[9] A second respondent complained that, due to the size of his farm, he did not qualify for the financial assistance he needed from a private institution. Several farmers indicated that their condition of 'minority' was not based on race, but rather the fact that they were small-scale producers. When farmers were asked about where they would seek assistance, seven farmers mentioned FSA and Natural Resource Conservation Service (NRCS) offices, four farmers received some assistance from Michigan State University Extension (MSUE), two farmers worked with NGOs and one farmer consulted with a chemical company.

Very small-scale (*i.e.*, less than 5 acres) Hispanic farmers were less likely to receive assistance. While all farmers, regardless of income or size, had similar need for assistance, when groups were compared, 42 percent of farmers with less than 25 percent of total income coming from farming had not received any assistance, and only two farmers in the same group had

[9] During this research, some extension agents and a Michigan Department of Agriculture professional were independently working to provide Hispanic farmers with information about production and pesticide application. However, these individuals were volunteering their time to support Hispanic groups and their service was not part of a broader program to assist Hispanic farmers.

received some assistance. Similarly, 38 percent of farmers with less than five acres of cultivated land had not received any assistance, and only one farmer in the same category had received assistance (Table 9).

More than 60 percent of those interviewed indicated they had never been denied assistance (Table 8). Twenty-two percent explained that the reason they had not been denied was because they have never asked. On the other hand, 24 percent of farmers explained why they felt they were denied assistance. Six farmers were denied loans from FSA either because the FSA officer told them they had no experience farming or they made a mistake in their applications, and re-doing those applications would result in additional costs. Three farmers indicated they did not understand why they were disqualified for a loan. Regarding MSUE, one farmer said she called an Extension office and was told someone would come and help, but the person never visited. Other farmers complained that Extension agents would indicate during meetings that help was available, but would never provide contact information for the assistance. According to some farmers, discrimination is very subtle. For example, one farmer explained that he felt mistreated whenever office personnel realized he did not speak English well. Two other respondents felt the same, and while they were not told directly that their English proficiency was a barrier to communicate, they would make them feel uncomfortable. This difficulty communicating with agents is probably a reason why Hispanic farmers are still reluctant to seek assistance.

Participation in federal, state, NGO programs, or farmer's groups

Survey respondents were asked about participation in federal, state or local farm groups, and their knowledge of NGOs or private groups working with farmers in Michigan.[10] As expected, a high percentage of farmers did not participate in federal, state or community programs. Out of all participants, 74 percent were not currently participating in any federal or state programs, 48 percent was not aware of NGOs that worked with farmers, and 54 percent did not participate in local farmer groups (Table 10).

For those farmers who were participating in different programs, the most common were NRCS conservation programs and different training programs sponsored by the USDA. The main state sponsored program farmers took part in was pesticide applicator certification. Farmers who knew about NGOs were mostly familiar with the Michigan Food and Farming System program, which is currently the only NGO with a specific multicultural program. In the case of local farmers groups, some farmers would know about the cooperative "Farmers on the Move" and the Michigan Hispanic Farmers Association.

When groups were compared by farm size and income, there was no statistically significant difference, which suggests that most Hispanic farmers still do not participate in programs sponsored by the government or NGOs. However, during the interviews, farmers provided some reasons for their lack of participation. For example, two farmers explained that trainings and meetings are usually during the week when they have to work somewhere else. One farmer indicated lack of knowledge about programs in the area that would specifically target small-scale farmers. Another believed he needed to be a large-scale farmer to qualify for

[10] Appendix 1 includes a summary of main Federal, State and NGO programs in Michigan

participation. Some farmers said that they would like to participate in programs that would help them. For example, these farmers suggested sources of financial support for small-scale farmers as a good educational topic, including requirements necessary and directions in filling out forms, which in the view of at least two farmers was a very complicated task.

Overall, it was observed that Hispanic farmers were misinformed about opportunities and rarely would seek additional information from the sources (*e.g.,* Extension offices or community-based organizations). During the data collection stage, several production and marketing related seminars were offered to all farmers in Michigan. These training sessions normally occur throughout the year, but mostly during winter. In addition to regular seminars on production practices, there were programs on Good Agricultural Practices (GAP) and food safety regulations. As well, specific field days for Hispanic farmers were organized to provide hands-on experience. The institutions organizing these events included MSUE, Michigan Department of Agriculture (MDA), USDA and Michigan Food and Farming Systems (MIFFS).

Regarding local farmer groups, Hispanic farmers were generally skeptical of working with other farmers. However, during the data collection stage for this research, a new cooperative of Hispanic farmers was formed with the support from a USDA grant. The main purpose of the cooperative was to help farmers with different aspects of farming and marketing. While some participants interviewed in this study were not sure how the cooperative would function or how it could be beneficial for their farms, farmers were interested in the information and marketing opportunities that might arise from the new venture. In addition to the cooperative, an association of Hispanic farmers was registered with the Michigan Department of Agriculture. However, during two different participant observations conducted at meetings of the

association and cooperative, farmers did not seem to understand how their participation entitled them, or what they needed to do as members of this organization. During interviews with some participants of these meetings, some were not sure about the difference between an association and a cooperative. Likewise, three farmers indicated that it was difficult for them to work with other Hispanic farmers because, in many cases, they did not trust each other. Two farmers said they simply did not want to participate in farmer's groups. As mentioned before, lack of accurate information probably influences the limited participation of farmers in these different groups.

Summary and Discussion

This paper presented a review of Hispanic farmers' social and farming characteristics, needs and access to assistance, and participation in government and NGO programs. Despite the fact that Michigan ranks number one in number of farms with a Hispanic principal operator, there is still limited awareness of the specific challenges these farmers face and possible alternatives to help them improve their farm viability. Hispanic farmers face numerous constraints. However, access to, and participation in, programs designed to support farming management can help them improve their socio-economic conditions.

Hispanic farmers interviewed in this research are socially disadvantaged, and most operate limited resource farms. Most Hispanic farmers are relatively young men who are part-time farmers. Family labor represents the main support to maintain their operations. Hispanic farmers operate, on average, 30.5 acres, which is below the average size for farms in Michigan. More than 50 percent of these farmers made less than 25 percent of their total income from farming. Regarding educational attainments, more than 40 percent in this research have only completed basic education, and many still struggle with English proficiency. Low educational

attainment and English proficiency may increase their level of disadvantage, and further increase their marginalization.

Considering farm economic characteristics, it is not surprising that Hispanic farmers in this research study indicated a need for assistance to maintain farm viability. Out of the 50 farmers interviewed, 58 percent indicated they needed assistance, and 54 percent cited the need for financial assistance in particular. However, only 22 percent of Hispanic farmers have ever received assistance, and 16 percent said they were denied assistance. Regarding current participation in government and NGO programs, 74 percent were not participating in federal or state programs, 48 percent were not aware of NGO groups working with Hispanic farmers, and 54 percent did not participate of any local farmers groups.

Outreach and Extension programs remain some of the best options for farmers to access and participate in government and NGO programs designed to support production and marketing management, which, in turn, could help them increase their farm viability. However, despite growing efforts to include Hispanic farmers in these programs, farmers still face unique challenges to assimilate and effectively participate in these programs. Outreach program design needs to consider the socio-economic condition of Hispanic farmers and their specific needs in order to successfully serve and assist this target population. Some proposed activities include:

a) Targeted training sessions with relatively small groups of farmers, in which short presentations in combination with other training materials, such as pictures or short videos, represent an alternative to effectively reach out to Hispanic farmers. While more education and training are necessary to help Hispanic farmers, traditional written materials, such as magazine

articles or booklets with extensive information, may not be effective tools to reach Hispanic farmers.

b) Bilingual sessions could help farmers get more acquainted with terms and materials that can be used in farm management. While programs that provide information in Spanish are important, given that Hispanic farmers still have low English proficiency, Spanish-only training could promote more problems with marginalization and highlight their language disadvantages.

c) Consideration in providing training and education sessions during those times when Hispanic farmers are available is necessary. Training sessions, farm meetings or field days should accommodate the needs of part-time farmers who work during the week and cannot participate during regular office hours. Weekend programs should be considered as an alternative.

d) Coordination among institutions providing support for Hispanic farmers is fundamental to effectively reach them. The MDA and MSUE already coordinate some training for pesticide certification and production management (Santos and Castro-Escobar forthcoming). In addition, MSUE and MIFFS regularly coordinate information and training sessions. However, coordination efforts among other institutions are rare. Particularly in these times of limited funding, cost-efficient information delivery is important to reach to more farmers.

d) Careful consideration of issues affecting Hispanic farmers can help increase participation in local farmers groups and community-based programs. During the interviews, farmers complained that they were not receiving the type of support they needed. Listening sessions or interviews with key informants can provide important feedback in developing programs for Hispanic farmers. Explicit objectives to include certain target groups (*e.g.*, farmers

with less than 10 acres, vegetable producers) can help concentrate efforts to increase participation. Incentives (*e.g.*, certificate of participation) can motivate farmers to participate.

e) Hispanic farmer's leadership and support of fellow farmers are fundamental in creating incentives for other farmers to participate. Community leaders training and mentoring programs have been successful with other small-scale farmers, and have the potential to reach to other Hispanic farmers. Though farmers were reluctant to work closely with other farmers in some cases, in other situations, farmers were compelled to start an association or a cooperative, because they felt these groups could help provide better marketing information. Efforts such as these should be encouraged as they have the potential to give Hispanic farmers a voice.

The results from this research have some limitations. First, given the focus of this research (small-scale Hispanic farmers) and the sampling technique utilized to identify participants, the results are only applicable to this specific sample, and are meant to provide more in-depth analysis of specific issues affecting Hispanic farmers. Second, though a significant percentage of Hispanic farmers was included (more than 20 percent of fruit growers and more than 50 percent of vegetable growers, according to the Census), the results are not meant to be generalized to all Hispanic farmers in Michigan. However, they provide some important variables that could be compared across different groups of Hispanic farmers and other minority and fruit and vegetable farmers.

Table 1. 2007 Midwest Hispanic Principal Operators, Total Farm Acres and Average Farm Size

State	Farms	Acres	Average Farm size
Michigan	615	54,795	89
Kansas	555	335,823	605
Missouri	444	76,492	172
Iowa	346	103,666	300
Illinois	325	57,506	177
Ohio	302	44,549	148
Minnesota	296	101,372	342
Wisconsin	245	29,732	121
Indiana	217	35,333	163
Nebraska	166	157,066	946
South Dakota	116	87,645	756
North Dakota	92	149,958	1,630

Source: U.S. NASS 2009

Table 2. Participants Characteristics from Interview and Survey

Participants	Number	Percent
Number	50	100
Gender		
Female	11	22
Male	39	78
Age		
less than 35	5	10
35 to 65	43	86
more than 65	2	4
Education		
High School (completed or some years, includes GED)	20	40
Elementary (completed or some years)	8	16
Some college	4	8
Some school in Mexico	14	28
No school	4	9
Preferred language for the Interview		
English	8	16
Spanish	42	84
English Proficiency		
Yes	30	60
No	5	10
Did not answer	15	30
Country/Region of origin		
Mexico	32	64
Texas	6	12
Midwest (Michigan, Indiana)	5	10
Other LA country (El Salvador, Cuba, etc.)	2	4
No answer	5	10

Table 3. Participants by County and Total Agriculture Census Proportion

County	Respondents	Ag Census	Respondents	Ag Census
	---------- number ----------		---------Percentage ------	
Van Buren	38	107	76	36
Ottawa	4	32	8	13
Allegan	3	30	6	10
Oceana	2	14	4	14
Berrien	1	22	2	5
Ingham	1	10	2	10
Lenawee	1	19	2	5

Source: U.S. NASS 2009

Table 4. Participants Farming Characteristics

Participants	Number	Percent
Management of the farm		
Female	8	16
Male	42	84
Dedication to farming		
Part time	36	72
Full time	14	28
Type of operation		
Family	40	80
Individual	7	14
Rented	3	6
Hired labor		
No	28	56
Yes	22	44
Farm production		
Fruits	38	76
Vegetables	10	20
Small animals	2	4

Table 5. Farm Size and Area Cultivated

Acres	N	Minimum	Maximum	Average
Owned	47	0	198	30.5
Cultivated	47	0.25	88	16.9

Table 6. Number of Producers by Size of Operation and Production

Size of operation	Production			
	Fruits		Non fruits	
	Respondents	(%)	Respondents	(%)
5 acres or less	14	36.8	7	58.3
more than 5 acres	24	63.2	5	41.7
Total	38		12	

Table 7. Percentage of Income from Farming

Income category	Respondents	Percentage
Less than 25%	26	52
26% to 50%	7	14
51% to 75%	4	8
More than 75%	13	26
Total	*50*	*100*

Table 8. Hispanic Farmers Assistance Needed and Received in Michigan

Question	Yes		No		No Answer	
	Number	(%)	Number	(%)	Number	(%)
General assistance needed	29	58	15	30	6	12
Financial assistance needed	27	54	14	28	9	18
Assistance received	11	22	33	66	6	12
Denied assistance	8	16	31	62	11	22

Table 9. Assistance Needed and Received by Size of Farm Operation

Group	Assistance			
	Needed		Received	
	Yes	No	Yes	No
	---------- Number ----------			
Income				
<25%	16	7	2	21
26 to 75%	5	4	1	8
>75%	8	4	8	4
Chi-square	0.569		15.289	
Probability	0.752		0.000	
Area cultivated				
<5 acres	14	6	1	19
>5 acres	15	9	10	14
Chi-square	0.273		7.822	
Probability	0.601		0.005	

Table 10. Hispanic Farmers Participation and Knowledge of Federal, State, NGO and Farmer's Groups

Programs	Yes		No		No Answer	
	Number	%	Number	%	Number	%
Participation in Federal or State programs	8	16	37	74	5	10
Knowledge of non-government group or farmer's groups	17	34	24	48	9	18
Participation in Farmer's group, association or cooperative	14	28	27	54	9	18

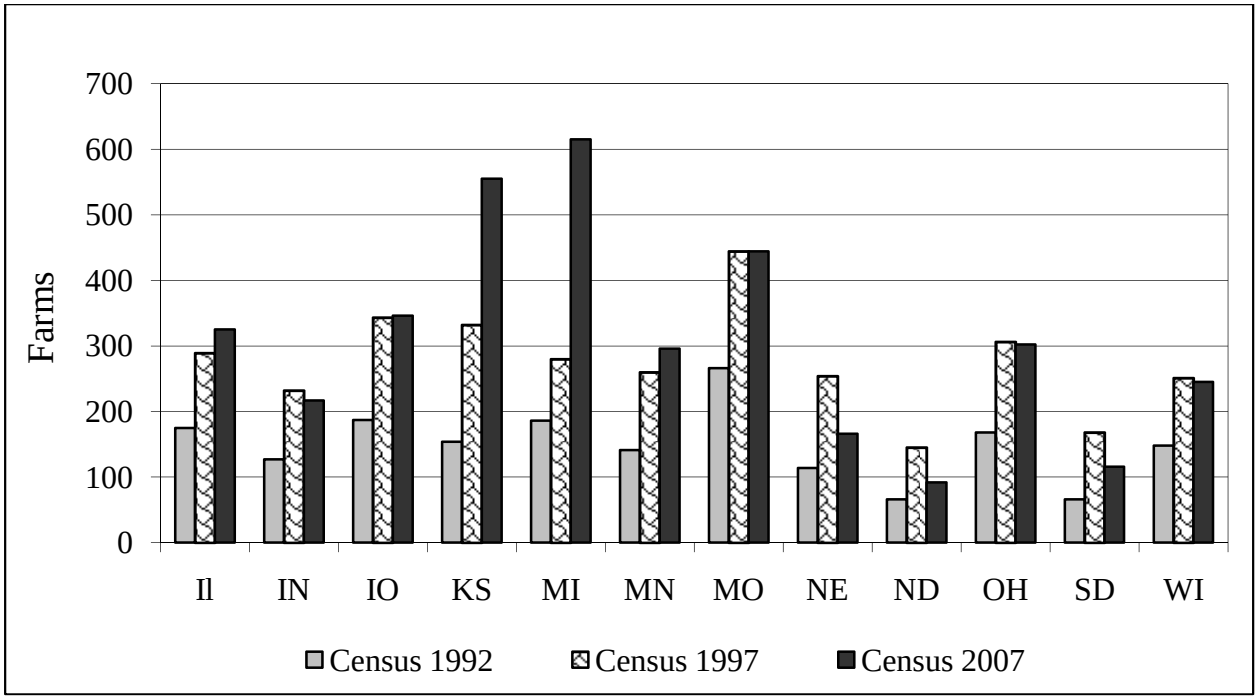

Figure 1. Farms with a Hispanic Principal Operator in the Midwest

Source: U.S. NASS 2009

Chapter II - Appendix A

Table 11. Federal, State and NGO programs with programs for Hispanic Farmers*

Type	Source	Programs	Main purpose
Federal	The Farm Service Agency (FSA)	FSA loans	Operating loans to family-size farmers who cannot obtain credits from commercial banks Used to purchase land, livestock, equipment, feed, seed, and supplies. Funds for socially disadvantaged farmers are specifically reserved each year.
	The Small Farmer Outreach Training and Technical Assistance Program	Outreach and training	Provide agricultural assistance and education to farmers from socially disadvantaged groups
	Building Sustainable Farms, Ranches and Communities	Sustainable agriculture Research and Extension (SARE)	*Federal Programs for Sustainable Agriculture, Forestry, Entrepreneurship, Conservation and Community Development.*
	Small Socially-Disadvantaged Producer Grant (SSDPG)	Rural development	Provide technical assistance to small, socially-disadvantaged agricultural producers through eligible cooperatives and associations of cooperatives. Grants are awarded on a competitive basis.
	Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services (NRCS)	Up to 90 percent of the costs associated with planning and implementing conservation measures for socially disadvantaged and beginning farmers or ranchers.

Table 11 (cont'd)

Type	Source	Programs	Main purpose
	Conservation Stewardship Program (CSP)	Natural Resources Conservation Services (NRCS)	Up to 90 percent of the costs associated with planning and implementing conservation measures for socially disadvantaged and beginning farmers or ranchers.
State	Michigan Department of Agriculture	IPM Training Program	A pesticide applicator must attend a Michigan Department of Agriculture approved IPM Training Program before making a pesticide application in schools, public buildings, or health care facilities.
	Michigan Department of Agriculture	Good Agricultural Practices, Good Handling Practices (GAP/GHP)	This program provides uniformity of a national auditing program for the fresh produce industry verifying good agricultural and handling practices. This is an independent, third-party, audit-based service provided by licensed fresh fruit and vegetable inspectors who have successfully completed the GAP/GHP training class and have participated in a minimum of three audits, including two as the lead auditor.
Federal and State	MSU Extension		

Table 11 (cont'd)

Type	Source	Programs	Main purpose
NGO	Michigan Food and Farming Systems	Multicultural Rancher programs	Some programs and workshops include Integrated Pest Management (IPM) trainings, computer and web training programs, blueberry production workshops and farm visits, business management and loan workshops and now hoophouse training workshops.
	Farmers on the Move	Farmers' cooperative	First cooperative for Hispanic farmers in Michigan
	Michigan Hispanic Farmers Association	Farmer's association	First organized group for Hispanic farmers in Michigan

* This list is a summary of available Federal, State and NGO programs available to socially disadvantaged farmers in Michigan. This list is not exhaustive of all programs currently available to farmers.

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CHAPTER 3

HISPANIC FARMERS IN MICHIGAN: MARKETING EXPERIENCE, SKILLS AND EXPECTATIONS IN ACCESSING PRODUCE MARKETS

Introduction

According to the U.S. Census of Agriculture, Michigan ranks 10th in the country and first in the Midwest in number of Hispanic principal farm operators. Currently, Hispanic farmers produce and market a number of fruit and vegetable crops. However, they still struggle with poor economic performance and lack of access to production and marketing support. Despite the importance of marketing and market access to increase their farm viability and competitiveness, information that specifically targets Hispanic farmers' perspectives and focuses on successful management and marketing strategy remains limited.

The objective of this paper is to explore Hispanic farmers' marketing needs and opportunities in Michigan. This paper analyzes their marketing experience, skills, and expectations for the future. The analysis focuses on the marketing needs and limitations identified by Hispanic farmers, as well as specific areas in which policy, government agencies, and community-based organizations could support these farmers. In addition, this analysis provides information that could help improve the economic viability of Michigan's small-scale Hispanic farms, and contributes to improving the overall economic performance of small-scale agriculture throughout the state.

Data were collected using a mixed-method approach, in which interviews and surveys

were conducted with 50 Hispanic farmers in Michigan from July 2009 to May 2010. Results suggest that, while Hispanic farmers have gained important marketing experiences and skills that helped them access their current markets over time, they still struggle and need support to access new markets and alleviate their heavy dependence on specific markets. In addition, most of the farmers interviewed had not clearly defined a marketing objective that would help guide their efforts in improving future farm viability.

In the following pages, a brief literature review of key issues facing Hispanic farmers is presented. This is followed by a conceptual framework and methods used to analyze the data. Following a presentation and discussion of the results, the paper concludes with a review of the limitations of the research, and suggestions for future study.

Background

Hispanic farmers: Social and Economic performance

Hispanic[11] farmers are increasing in number and economic importance in Michigan. According to the U.S. Census of Agriculture (The Census), Michigan ranks 10th in the country and first in the Midwest in terms of number of Hispanic principal farm operators[12] (U.S. NASS 2009) (Table 12). While the Census shows an increase in the number of principal operators in

[11] In this paper, "Hispanic" is a label used to group individuals living in the U.S. who have some background or are from Spanish-speaking countries in Latin America (Hoy 2007). Hispanic farmers in the U.S. include newcomers (*e.g.,* immigrants from other countries) and/or established individuals whose families have farmed from generations and are originally from the U.S. (Swisher *et. al.,* 2007). The U.S. census considers Hispanics those who indicate their origin as Mexican, Puerto Rican, Cuban, Central or South American, or some other Hispanic origin. Hispanics can be of any race (U.S. NASS)

[12] According to the U.S. Census of Agriculture principal farm operator are people "primarily responsible for the on-site, day-to-day operation of the farm or ranch business. This person may be a hired manager or business manager." (U.S NASS)

Michigan and the Midwest, there is still concern that this data does not accurately reflect the real number of Hispanic farmers, which could currently be much larger (Garcia *et. al*. 2008). This undercount of Hispanic farmers is due mainly to missing farmers from lists used by the Census, new immigrant farmer's lack of knowledge about the Census, language and illiteracy issues, lack of trust on government institutions, and widespread informal arrangements among Hispanic farmers, who use the name of other people to acquire land to farm (Garcia *et. al*. 2008).

One of the most striking issues affecting Hispanic farmers in Michigan is their poor economic performance. Despite overall expansion of Michigan's agricultural sector[13] and Hispanic farmers' increased participation in production of Michigan crops that currently rank among the top ten in the country (*e.g.* blueberry, apples), data from the census show that 53 percent of Hispanic farmers have total annual sales of less than $5,000, and only 17 percent make more than $50,000 per year (U.S. NASS 2009). These numbers reflect the struggle these farmers have in maintaining farm viability. The Census of Agriculture defined limited-resource farms as those with "market value of agricultural products sold of less than $100,000, and total principal operator household income of less than $20,000" (U.S. NASS).

While in general, Michigan small-scale farmers struggle with farm viability issues (50 percent of all small-scale farms in Michigan make less than $5,000 in total annual sales), the United States Department of Agriculture (USDA) categorizes Hispanic farmers as "socially disadvantaged," a condition that has prevented Hispanic farmers from accessing programs designed to improve their farm production and marketing, and further contributes to their low

[13] It is estimated that agriculture and related agro-food and energy system contributes around $64 billion and supports more than 1 million jobs in Michigan. Farming represents around 11 percent of total direct and indirect impact to the agro-food and agro-energy system in the state (Peterson *et. al*. 2006)

farm viability. “A socially disadvantaged group” is defined as one whose members have been subjected to racial or ethnic prejudice because of their identity as members of a group without regard to their individual qualities. Those groups include African Americans, American Indians or Alaskan natives, Hispanics, and Asians or Pacific Islanders” (FACT 1990).

Hispanic Farmers’ Marketing Practices in Michigan

Despite the importance of marketing and market access to increase farm viability and competitiveness, information that specifically targets the Hispanic farmers’ perspectives and their current marketing strategies and farm management practices remains limited. In the most recent federally-funded report addressing Hispanic farmers in the U.S., farmers cited marketing and access to information among the major constraints in maintaining their farm viability (Swisher *et. al*. 2007). These findings focused on case studies from California, New Mexico, Texas, Florida, Puerto Rico and Missouri, and included 72 Hispanic farmers in total. Though the findings of this research provide important background to understand the marketing need of Hispanic farmers around the country, it provided limited information about the Midwest and Michigan, which currently had the largest number of Hispanic farmers in the region.

Similarly, Green (2001) found that limited financial resources and access to credit, lack of information appropriate for their farm types, limited access to markets and low prices in their markets were among the main constraints cited by limited-resource farmers in maintaining farm viability (Green 2001). Again, while 17.6 percent of the 119 participants in Green’s study were

Hispanic farmers, the focus groups excluded most farmers from the Midwest and Michigan, and it is not clear whether these issues could be considered similar in other regions (Green 2001).[14]

In Michigan, only two studies on Hispanic farmers have partially addressed farmers' marketing needs and challenges. Santos and Castro-Escobar (forthcoming), based on interviews with 30 Mexican farmers, reported that most immigrant Mexican farmers never farmed before coming to Michigan. For the most part, these farmers followed the paths of family members who migrated before them and, therefore, also followed similar marketing strategies (Santos and Castro-Escobar forthcoming). Likewise, Lopez-Ariza (2007), in interviews with 12 Hispanic farmers, found that marketing was a constraint in improving their farm viability (Lopez-Ariza 2007). However, the study did not address the specific marketing needs and/or opportunities these farmers had to increase their farm viability. While all this information provides valuable insights into Hispanic farmers' marketing needs, there is still need to understand and analyze their own marketing perspectives, given the challenging economic conditions and difficult social situations they continue to experience in Michigan.

Information that can provide more detail on the marketing experience, skills and expectations of Hispanic farmers in Michigan could offer a better understanding of farmers' concerns, and focus on areas in which they need more support. In turn, this information can provide a baseline for designing programs that would help Hispanic farmers assess their current strategy and improve upon it to further their farm viability and competitiveness.

[14] The sample included farmers from California, Maine, Mississippi, New Mexico, North Carolina, South Carolina, Vermont and Washington and one group in Mexico (Green 2001)

Conceptual framework

Studies on small business and rural entrepreneurship suggest that marketing experience, skills and clear expectations for the future are important personal resources for success. Loscocco and Robinson (1991) found that small-scale business women often indicated that their lack of managerial skills as a major barrier to successfully running their businesses (Loscocco and Robinson, 1991). Loscocco *et al.* (1991) also found that additional skills and experience were positively related to business success (Loscocco *et al*., 1991). In a review of different studies on rural entrepreneurship in Europe, McElwee (2006) found that successful rural entrepreneurs had constant development of professional and knowledge skills, the setting of goals and the ability to reach them and set new ones, and the ability to use current and relevant information to access markets in common (McElwee 2006). Richards and Bulkley (2007) also found that successful farmers used their skills to adjust to free-market economy changes, based on a review of different rural entrepreneurial studies (Richards and Bulkley 2007). Thus, marketing experience, skills and clear expectations for the future are expected to help farmers improve their farm management, and, ultimately, increase their viability.

While the concept of experience, skills and expectations seem straightforward, it is important to clarify them within the context of the analysis of Hispanic farmers' marketing practices. In this paper, marketing experience refers to the number of years an individual has been involved in a particular industry or activity within that industry, and the amount of time a person has performed specific marketing activities (Kalleberg and Leicht, 1991; Loscocco *et al.*, 1991). In a farmer's case, an important part of marketing experience is normally gained over time by trying things and making mistakes (*i.e.*, trial and error). Personal observations and

participation in marketing activities is considered to be "local knowledge" (Kloppenburg 1991; Butler-Flora 1992)[15]. In this paper, it is assumed that Hispanic farmers build their local knowledge of markets when they engage in market transactions and participate in different market channels; thus, learning about requirements and trends in the market.

The emphasis on marketing knowledge for these farmers is based on prior research showing the relevance of learning new practices or succeeding at doing something new. For example, Millar and Curtis (1997) found that farmers in Australia were able to use their local knowledge and experience to learn more about sustainable pasture management (Millar and Curtis 1997). In Nebraska, Sattler-Weber (2007) found that although some small-scale business-women had limited formal education and no financial capital, they did have experience selling farm products from their homes, which contributed to their business success (Sattler-Weber 2007). Similarly, it is expected that years of farming in Michigan has contributed to an increase in Hispanic farmers' local knowledge, and helped them maintain viability.

In addition to self-developed local knowledge, it is also important to have good quality, overall marketing knowledge to remain competitive. Campbell and Barret (2008) suggests that in many cases the real challenge for small-scale farmers is finding ways to learn about new market opportunities and becoming more adept at accessing and using these opportunities (Campbell

[15] The concept "local knowledge" is similar to the 'indigenous knowledge' of farmers in developing countries (Kloppenburg 1991). As a concept, local knowledge has been contested in developed countries mostly because of the widespread adoption of science-based knowledge and the view that farmers are 'adopters' and not 'creators' of knowledge (Kloppenburg 1991). An interesting example of local knowledge exchange can be found in Hassanein (1999). Proponents of local knowledge criticize the belief that all farmers had equal access to science-based knowledge and technologies and the resources to use them (Millar and Curtis 1997). In the case of Hispanic farmers equal access to science-based information has not been the case.

and Barret 2008)[16]. Green (2001) found among socially disadvantaged farmers that marketing problems, such as insufficient marketing information and prices, represented a barrier to competition with larger-scale producers in their markets (Green 2001). Considering these studies and the current situation, it is fair to expect that Hispanic farmers in Michigan face similar challenges, and their limited marketing knowledge makes it difficult to improve their farm viability.

Hispanic farmers' marketing skills is the next factor explored.[17] Marketing skills help farmers deal with changes in markets structures. Clark (2009) found that, in the face of rapid market changes, successful farm entrepreneurs would adopt new market strategies, such as selling to niche markets or to outlets that offered specialized product attributes (*e.g.*, local, organic) (Clark 2009). Similarly, Ross and Westgren (2006) found that the ability to minimize transaction costs help farm entrepreneurs generate profits and remain competitive (Ross and Westgren 2006). Specifically, Michigan's Hispanic farmers have developed marketing skills over the years that have helped them successfully deal with transaction costs and access different markets. However, it is also expected that these skills are relatively limited due to their limited range of market and marketing knowledge.

Finally, in addition to farmers' marketing experience and skills, Green (2001) suggests that expectations for the future are a very important indicator of how socially disadvantaged farmers perceive their business environment, as well as the kind of marketing strategies they

[16] Shane (2000) found that the source of entrepreneurship was in the difference in information about opportunities and individual characteristics influence the type of opportunity discovered (Shane 2000).

[17] According to the Merriam-Webster dictionary, skill is the ability to use one's knowledge effectively and readily in execution or performance (Merriam-Webster).

would adopt (Green 2001). For example, McElwee (2006) found that successful farm entrepreneurs usually had a goal-oriented management style in addition to managing a profitable farm business, and used current market information to maintain their competitive advantage (McElwee 2006). Thus, a well-defined marketing strategy could be an indicator of Hispanic farmers' expectations about their markets and the resources they believe they could access to achieve their goals, given their socially disadvantaged condition.

While personal goals are important for successful future planning, Richards and Bulkley (2007) argue that farmers need favorable conditions in their communities to encourage their entrepreneurship (Richards & Bulkley 2007). Favorable conditions can be defined as those market characteristics conducive to dynamic relationships among resources, people and firms (Dinis 2006; Richards and Bulkley 2007). For example, farmers are more likely to use their leadership skills to negotiate contracts or execute marketing plans with buyers and other marketers when they have developed good, long-standing relationships with them (Escalante and Turvey 2006; Ross and Westgren 2006). Similarly, in localized distribution channels in which retail, food service companies and farmers work together to develop innovative marketing strategies, favorable business conditions are the most likely reasons farmers successfully cooperate and develop win-win models of food distribution with different business partners

(Kirschenmann *et al.*, 2008). [18] However, In Canada, Siemens (2009) found that people in rural areas must often operate without standard business resources (*e.g.*, access to Internet, banking services, and other information) that are generally needed to succeed in different endeavors (Siemens 2009). Thus, while personal goals are very important, Hispanic farmers need a good business environment to be able to find market opportunities that allow them to develop their marketing strategies.

Exploring and analyzing Hispanic farmer's marketing experience, skills and expectations for future access to markets (Figure 2) are expected to: a) provide more detailed information about marketing practices, given the limited information currently available regarding these farmers; b) identify specific constraints they face in their markets that prevent them from increasing their farm viability, and c) identify areas in which these farmers need more support to successfully develop and increase their local marketing knowledge.

Methods of Data Collection and Analysis

The results discussed in this paper were collected as part of a case study. Case study is an appropriate method when the objective of a study is to gain more knowledge about a specific group, and the issues affecting this group (Yin 2009). However, one of the main limitations of exploratory analysis like this is that the results are only applicable to the sample being studied,

[18] The development of values-based value chains (Kirschenmann *et al.*, 2008) and different case studies of innovative models of small grower-retail and restaurant collaboration (Starr *et al*., 2003; Hoshide 2007; King *et al*., 2010) represent examples of localized food distribution channels in which retail, food service companies and farmers worked together to develop innovative marketing strategies (Kirschenmann *et al.*, 2008). In Europe the Slow Food Movement developed a model to link small-scale producers with big retailers (Fonte 2006). Also, in Europe, short food supply chains exemplify production-distribution systems inside and outside communities that are not part of the conventional food distribution model and remain viable for small-scale farmers (Renting *et al*. 2003; Ilbery *et al*. 2004).

and important generalizations cannot be made based on these results. Despite these limitations, the limited information about Hispanic farmers and their marketing practices and strategies requires an exploratory inquiry for which a case study approach is better suited (Yin 2009).

Two criteria were considered to select the population of Hispanic farmers in Michigan. First, farmers had to have control of production and marketing. According to the Census of Agriculture, there are 615 principal farm operators of Hispanic background in Michigan.[19] Second, Hispanic farmers had to be classified as berry, fruit or vegetable producers. Considering these characteristics, the Census identifies 146 Hispanic fruit producers, and 18 vegetable producers in Michigan. While Hispanic farmers are currently producing an array of different products in Michigan, there are different marketing channels utilized by producers of other crops (*e.g.*, corn or soybean) or products (*e.g.*, milk). In addition, producers of fruits and vegetables are more likely to use different marketing channels and sell directly to retail and food service, which is an important aspect of this research.

Once the population of Hispanic fruit and vegetable producers (164 farmers) was defined, this research used key informants and snowball sampling to select participants. After identifying and contacting farmers, 50 Hispanic farmers agreed to participate in this research between July 2009 and May 2010. Out of these, 38 farmers reportedly produced fruit, including blueberries, strawberries, apples, peaches and grapes; and 12 farmers produced vegetables. As a result, this

[19] The definition of principal operator includes all those who run a farm and make daily management decisions; they might be owners or be hired managers. In some cases, Hispanics farmers would manage the production and labor, but they had no decision-making power with regards to marketing products. In situations where that was the case, farmers were not interviewed because the objective of the research was to know more about how they dealt with marketing issues.

research covered approximately 24 percent of Hispanic fruit producers and 55 percent of Hispanic vegetables producers in Michigan.

The data collection followed a mixed-method approach. The rationale for using this approach was based on research suggesting that mixed-methods may be better to provide greater diversity of different views, simultaneous depth and breadth, and internal validity (Maxwell 1996; Kemper *et al.*, 2003;). Using mixed-methods have the potential to better address the issues Hispanic farmers considered important with regard to their marketing experience, skills and expectations for the future. In this research, a combination of a survey questionnaire, in-depth individual and group interviews, and participant observations were all used to elicit information. Secondary data from the U.S. Census of Agriculture was used to compare results from the survey.

The data collection procedure involved two steps. First, participants were asked to complete a survey in which they provided descriptive information about their farms (*e.g.*, farm size, location, type of production) and demographic characteristics (*e.g.*, gender, age range, educational attainment, origin). This survey also asked farmers general marketing questions, such as to markets sold (*e.g.*, selling to broker or farmers markets), percentage of production sold in various markets, if attempts had been made to sell to supermarkets and restaurants, what their biggest challenges where when trying to sell products, and their expectations for the future.

In addition, farmers were asked to rate on a scale ranging from not difficult to very difficult, the level of difficulty dealing with specific marketing activities or transaction costs in

their markets[20]. The list of common marketing activities followed Hobbs (1997), and included searching for information (*e.g.*, price, quality and markets), monitoring transactions (*e.g.*, trusting buyers, building a reputation, getting payments) and negotiation activities (*e.g.*, accessing markets, negotiating agreements, meeting buyers) (Hobbs 1997). Immediately after rating these activities, farmers were asked to explain their answers in more detail. For example, if farmers rated finding new markets as a very difficult activity, they were asked to provide more information to explain their response, including examples. Similarly, farmers were asked about their expectations for their future as farmers in Michigan, and asked to provide specific examples to help clarify their answers.

In addition, three group interviews were also conducted during the course of this investigation. Farmers completed the farm, demographic, marketing information and rating portion of the survey individually, and, as a group, they discussed what they found difficult or easy about marketing their products, as well as their expectations for the future. Finally, three participant observations were conducted during meetings of a newly formed cooperative and an association of farmers, respectively, and during a farmers' conference. These observations were useful in understanding how farmers interacted with other farmers, gaining more information about common marketing problems, and how they were dealing with these issues (DeWalt 2002).

[20] Ronald Coase coined the term "transaction costs" to explain the process of finding price information and the costs associated with this action (Coase 1937). Transaction costs are present any time firms need to negotiate delivery times, product characteristics and any other information necessary to complete a transaction (Stiglitz 1989). Moreover, any time there is uncertainty in a transaction there is a cost associated to it (North 1990).

All the individual and group interviews were transcribed immediately after they were conducted, and analyzed using NVivo software for qualitative data analysis. A coding scheme was developed for analyzing the transcribed interviews and group discussions following the survey questionnaire (Patton 2002; Rubin and Rubin 2005). The main codes corresponded with the questions used in the survey. For example, the code for "new markets" corresponded to the question regarding "how difficult do you find finding new markets for your products?" After grouping each answer under their first code, sub-codes with emerging themes were identified from some answers. For example, under "new markets", a sub-code "not looking" was developed to address farmers who responded that they were not looking for new markets at the time of the interview.[21]

All the numerical data (*e.g.*, farm size, income from farming) from the survey was analyzed using SPSS-PASW and STATA.[22] In all group comparison cases, a Chi-square test was conducted and reported. In addition, a model of factors influencing farmers' decisions to diversify their market channels was developed. Park and Lohr (2006) found that organic farmers who diversify their market channels are more likely to improve their income and the viability of their farms. Thus, it is increasingly important that farmers have a portfolio of market channels (Park and Lohr 2006).

In the model, the dependent variable was whether or not farmers diversified market channels. The explanatory variables were whether or not a farmer produced blueberries (Blueberry), the level of difficulty in finding new markets (NewMkt_2), the number of years

[21] Appendix A of this dissertation contains a table with the codes used in this paper.
[22] It is important to remark that due to the nature of the sampling procedure, all the results from the statistical analysis are only applicable to this specific sample.

farming in Michigan (Years_MI2) and the level of trust in their buyers (Trust_2). These variables were based on previous research by McInnis (2003) on organic marketing channels, which showed that small numbers of markets and lack of clear requirements from buyers represented barriers to developing better marketing strategies (McInnis 2003). In addition, Hobbs (1997) also found that the number of different markets or buyers was important to ensure competition (Hobbs 1997). The variable "years farming in Michigan" was included because it was expected that farmers who have been in Michigan for a longer time would have more knowledge of markets and market transactions. Finally, a variable representing blueberry producers was included to reflect the differences between blueberry producers and those who were not blueberry producers. In order to estimate this model, an exact logistic regression (Hirji 1987; Hosmer and Lemeshow 2000) was selected, since it is a model that handles binary outcomes correctly, given the small sample size (n=50).[23]

The results were separated in three different sections: marketing experience, skills, and expectations for the future. Each section presents a report of both the quantitative analysis (*e.g.*, number of years farming in Michigan, years farming by country or region of origin; percentage sold by different markets) followed by the qualitative explanation of these results.

[23] In situations where sample size is small and the outcome is binary, the mathematical assumptions of the conventional logistic regressions, such as sample size large enough to be normally distributed, likelihood ratio to follow Chi squared distribution, and Wald test to follow normal distributions are not justified (Hosmer and Lemeshow 2000). However, the exact method of logistic regression is based on the development of a statistical distribution than can be completely enumerated. This is possible thanks to current statistical packages that allow for this complex computation (Hosmer and Lemeshow 2000). The estimates were computed using a multivariate shift algorithm (MSA) as presented by Hirki, Mehta and Patel (Hirji *et al.* 1987). The statistical package used for this computation was STATA 10.

Results

Marketing Experience

Hispanic farmers' marketing experience in Michigan was the first characteristic analyzed. Two indicators were used to assess farmer's experience; first, number of years farming in Michigan, and second, their knowledge of local markets. The majority of participants have been farming for a relatively short time. Forty-two percent of respondents began farming in Michigan less than five years ago and 44 percent began farming six to 15 years ago. More established farmers began 16 years ago (6 percent) and more than 30 years ago (8 percent) (Table 13).

The major difference among Hispanic farmers is how and where they learned about farming and, subsequently, how they gained local marketing knowledge. More established farmers (*i.e.*, more than 15 years farming) were more likely to be born or raised in the U.S., and less-established farmers (*i.e.*, less than 15 years of farming) were from Mexico or other Latin American countries (Table 14). When comparing established and less-established farmers, it was expected that the number of years farming in Michigan would reflect more knowledge of local markets and be better able to deal with marketing issues. For example, it was expected that more established farmers would find it easier to identify new markets or access existing markets because they had been farming longer. However, when a cross-tabulation was conducted, the results were not statistically significant to show a difference between established and new farmers in this study (Table 14). During interviews, some respondents from Mexico and other Latin American countries explained that their knowledge of farming came from their farming experience in their country of origin (Table 15). However, none of these farmers reported

growing fruits or vegetables before coming to the U.S., which is expected to limit their produce marketing experience.[24]

Hispanic farmers who were born and/or raised in the U.S. had gained farming experience as migrant workers, or because their parents were migrant workers. While they were confident that the production practices that they had gained as a farm workers was valuable, the fact that most were migrant workers, and not allowed to participate in marketing-related activities (*e.g.*, negotiate prices with buyers) limited their marketing experience. Though these farmers had years of farming experience before becoming fruit or vegetable farmers in Michigan, their exposure to marketing activities was very limited. Therefore, even when all Hispanic farmers had some marketing knowledge, it was limited enough that it did not help to significantly improve their farm operations.

To further analyze Hispanic farmers' local knowledge of markets, farmers were asked about their markets and the percentage of total production they would sell on these markets (Table 16). Farmers identified a variety of different direct-to-consumer markets (*e.g.*, farmers market, farm stand, direct distribution to neighbors), local stores, wholesale buyers and packers to which they sold their products. While it was expected that, due to their relatively small-scale production, Hispanic farmers would sell mostly through farmers markets or other direct-to-

[24] This result is similar to the findings of Santos and Castro-Escobar (forthcoming) who reported that Mexican farmers in Michigan usually did not have experience farming in the U.S. and their marketing strategy was to imitate those who migrated before them (Santos and Castro-Escobar forthcoming) .

consumer channel,[25] most farmers identified local packers and wholesaler-brokers as their most important markets.

Packers (*i.e.*, fruit and vegetable processing companies) represented the major markets for Hispanic farmers in this study. More than 60 percent of participants sold some percentage of their production to packers and 52 percent sold exclusively to this outlet (Table 16). Farmers agreed that the most important reasons to sell to packing companies were the proximity of these facilities to their farms, and the convenience to sell to them.

The second most-used market was the wholesale/broker channel (Table 16). Around 30 percent of respondents sold all or some of their production to wholesale and brokers in Michigan and occasionally Chicago. The wholesale/brokers to whom farmers sold products were either relatives (*e.g.*, brother, in-law) or friends from their same area, which suggests that family and friendship networks play an important role in the marketing strategy Hispanic farmers adopt to produce and distribute their produce. To illustrate this point, during one interview, a farmer expressed his desire to switch production of a specific crop because the price he was receiving was very low, but his relative/broker demanded that he continue growing this crop; thus, he continued to be unprofitable. Similarly, another farmer decided to spray pesticides on his blueberries after years of growing them organically. This would have given him the opportunity to apply for an organic certification and generate more profit, but his relative-broker told him to apply the pesticide so that this relative could sell his production in the conventional market. These examples show that family and friendship connections are likely influencing Hispanic

[25] The Economic Research Service (ERS) of the USDA reports that very small-scale farms produced around 11 percent of the fruit and vegetables in the U.S., and they relied on direct-to-consumers channels, such as farmers markets as main channel of distribution (Gale 1997; Newton and Hoppe 2001; Hoppe and Korb 2005; Hoppe *et al.*, 2007)

farmers' marketing decisions, and should be considered when assessing marketing strategies for these farmers.

Sales to local stores (*e.g.*, grocery stores, mom-and-pop stores) were uncommon. Only 10 percent of participants sold in this type of market (Table 16). None of the respondents indicated selling exclusively to stores and, in some cases, farmers said they would sell as little as one percent of all their production in this manner. No respondent reported sales to large-scale supermarkets (*e.g.*, Meijer or Kroger) or food service (*e.g.*, school cafeteria, restaurants). When asked whether or not they had tried to sell in these channels, 80 percent responded they had not. Limited production capacity was cited as the main barrier for accessing this market. In addition, none of the participants were considering food service as an outlet for their products. While small-scale production could be a contributing factor in the lack of participation in this market, there were a large proportion of Hispanic farmers who had limited first-hand knowledge about the marketing requirements of this channel.

As mentioned before, Hispanic farmers did not widely use direct-to-consumers channels, which are generally considered among most important outlets for small-scale producers (Buck *et al.*, 1997; Gale 1997; Kirschenmann *et al.*, 2008). Only 12 percent of participants responded that they relied on direct sales to market some of their products. They were reaching buyers through direct delivery to neighbors, delivering to friends in Chicago, and building a reputation in their communities, which encouraged neighbors to come to their farms to buy products. Also, some farmers indicated sales in their own small convenience stores or farm stands. Again, for these farmers, personal relationships were important and helpful as a marketing strategy to sell their products.

Unlike other small-scale farmers, the Hispanic farmers in this research did not benefit much from using organized farmers markets (Table 16). Only 10 percent used this channel to sell either all, or as low as one percent of their total production. In general, respondents felt that their local farmer markets did not have large number of buyers, and markets with more customers require traveling long distances, making them unprofitable for the volume they would sell in one day. In some cases, farmers indicated that they could not follow the requirements of their local farmers markets (*e.g.*, the farmers had to be the one selling, or production had to be organic). It is important to note that, during the interviews, some farmers mentioned that they have never considered farmers markets as an alternative marketing channel, and some were not very familiar about them.

In general, farmers did not seem very familiar with direct-to-consumer markets and the benefits that these kinds of markets could represent for them. One of the main advantages of direct-to-consumer channel is farmer's greater share of retail price and the greater opportunities to connect with consumers and learn first-hand about demand. When asked, farmers were not familiar with community supported agriculture (CSA), which has been a growing channel of distribution and a marketing strategy for many small-scale farmers across the country (Schnell 2007). This also suggests that, although farmers have been selling in different markets, their overall knowledge of marketing opportunities remains limited.

Marketing Skills

Following the analysis, the next set of characteristics explored was Hispanic farmers' skills in accessing markets. First, it was observed that mainly, Hispanic farmers used two marketing strategies: product specialization (*i.e.*, production of one product for one market) and

market diversification (*i.e.*, simultaneous use of marketing channels). In this research, 32 percent of farmers used market diversification. The most common of these was selling to packers and wholesale-brokers, selling to wholesale/brokers, and a small amount directly to consumers. In two cases farmers sold to all three markets simultaneously.

In general, vegetable producers were more likely to produce different crops; thus, more likely to use market diversification as a strategy than fruit producers (Table 17). Vegetable growers produced various vegetables (*e.g.*, tomatoes and peppers), or diversified their production with other fruits, such as apples, grapes and peaches. In some cases, farmers had chickens and sold broilers and/or eggs, and goats. Fruit producers and, in particular, blueberry producers tended to have only blueberries and sell solely to fruit packers.

Following a market diversification strategy seemed to help farmers learn more about different markets, even when they were not participating in them. For example, farmers who diversified their markets were more knowledgeable about retail (*e.g.*, supermarkets, grocery stores) and/or food service (*e.g.*, restaurants, or school cafeterias) markets. In total, six vegetable producers and three fruit producers responded they have at least tried to sell to supermarkets and restaurants (Table 18).

An important skill all Hispanic farmers have developed is their ability to deal with market transactions, most commonly referred to as transaction costs (Table 19). For the most part, Hispanic farmers were very confident in their ability to deal with a list of common transaction costs presented to them. They rated receiving prompt payment for their products, being trusted by buyers or customers, finding price and quality information for their products as a very easy or easy transaction cost they dealt with when trying to sell their products. On the other hand,

farmers struggle with finding new markets, dealing with excess production in their markets, accessing existing markets, meeting new buyers in their local markets, and negotiating agreements or contracts.[26]

When Hispanic farmers were asked to explain the difficulties they had in their markets, as expected, they said finding new markets for products a cost, in terms of the time, energy and resources needed to sell products (Ross and Westgren 2006). Farmers selling to packers and those selling in other markets close to their farms explained that the cost of transporting their products was a constraint to selling to packers, because high transportation costs lowered profits. In addition, farmers explained that looking for new markets, such as farmers markets, in their communities was not profitable because rural Michigan markets had low numbers of visitors, which also represented a serious constraint in finding ways to diversify markets. New farmers were usually competing with farmers who already had a reputation in the markets, and/or were larger in production scale (Escalante and Turvey 2006).

Another difficulty farmers found in selling their products was dealing with excess supply.[27] For example, farmers who sold to packers would usually base their planting and harvesting decisions on the expectations that packers would process all the fruits delivered to them. An excess supply of products meant packers would simply lower the price paid to the

[26] Cross-tabulations were conducted to compare farmers by origin, size of farm, production of fruit or non-fruit, and whether or not they diversified their market channels. In all cases there was no statistically significant difference among farmers in this sample.

[27] In 2008, fruit farmers experienced a year with exceptionally high yields. However, fruit packers had a difficult year selling products. This situation extended into 2009 and fruit packers were not processing all the fruit available in the area. This situation implied that during harvest time (August to September), prices reached record lows in the area of this study (*e.g.*, southwestern Michigan, west-central Michigan), and in many cases, processors had to reject loads because they did not have capacity to process and sell all the fruits they received.

farmer. Since all farmers in this sample were price takers, they would have no choice but to accept these lower prices or simply stop harvesting. For relatively new farmers, this situation was very difficult to overcome. Eight farmers said they did not know what to do and stopped harvesting. For more established farmers, their connections with managers and supervisors were helpful in enabling deliveries. However, they too had to deal with lower prices.[28]

Similarly, access to markets with currently grown products was a difficult issue for 28 percent. Dealing with different marketing requirements usually represented major barriers for Hispanic farmers when trying to sell their products. For example, all fruit farmers were required to provide a list of pesticides they applied during the growing season, and without this document farmers were not allowed to deliver their products to packing companies. This was particularly complicated for new farmers who did not have permits to apply pesticides and, in many cases, did not know how to obtain these permits. In addition, occasionally farmers had to register a year in advance in order to deliver products to a packing company. In two different cases, farmers were required to provide a Good Agricultural Practice (GAP) certification to continue selling their products. For farmers selling in farmers markets, the requirement that the person selling the products has to be the "farmer" in many of these markets was very difficult, since most farmers had jobs besides farming, and needed to rely on others to sell their products. These requirements represented high marketing barriers.

Getting connected with new buyers was difficult for 14 farmers. Some vegetable farmers reported that they did not know how to initiate contact with a store manager or others who may

[28] Unlike other farmers in Michigan who have relied on marketing cooperatives or associations to deal with this kind of issue (*e.g.,* apples growers who joined MACMA; tart cherry growers and the Cherry Marketing Institute), Hispanic farmers did not mention using this marketing mechanism to improve their choices to deal with excess supply of products.

be interested in their produce. These farmers acknowledged that they did not know anyone in Michigan who could be a potential business contact. Another concern for farmers was trusting new people who offered to buy their products. Some farmers were afraid of doing business with new buyers because they have learned about or had bad experiences with new buyers. A blueberry farmer explained that he needed to have the assurance that buyers would receive his fruit during the season, because a one-time transaction was not worth the effort. This is consistent with Hobbs (1997), who suggested that when farmers do not trust their buyers, they need to look for alternative outlets, which again increases their transaction costs (Hobbs 1997).

Finally, for 11 farmers, negotiating market agreements or contracts with buyers was a difficult activity. None of the participants had agreements with any buyer. While this is generally difficult for all farmers, not just for Hispanic farmers, it was interesting that three farmers mentioned that signing contracts was "dangerous." They explained that in the event they were not able to fulfill the contract, the buyers could take them to court, and they did not want to deal with that situation. This shows that there are still misunderstandings among farmers about what an agreement or contract means and the types available (*e.g.*, contracts with "act of God" clause to account for bad weather effects).

On the other hand, fruit farmers explained that, even if they were willing to negotiate contracts or agreements with packers, this was simply not possible. As one farmer explained, it was not possible to show up in a packing company, talk to the manager and request an agreement (*e.g.*, agreement to deliver 1,000 pounds of fruit per week). Another farmer said that packers give farmers their standards for quality, such as pesticide spraying, etc. If a farmer followed the packer's requirements, these packers would buy from you. Otherwise, they would not accept

your fruit. Clearly, fruit growers and packers developed vertical relationships, which represent a barrier to develop more coordination and cooperation with these buyers.

For seven farmers, the major market transaction skill learned was to rely on verbal agreements with their buyers. This skill helped these farmers deal with market issues, because they were able to communicate with people they already knew to sell their products. A farmer explained that he had been able to talk to a vegetable packer about the prices his was receiving and, after that, they agreed to a better price. This farmer attributed this success to the fact that they had been working together for several years. In addition, some farmers said that relying on verbal agreements with buyers was better in the long run, because this kind of relationship was based on trust, reputation and mutual respect for each other. Consistent with the literature, in some cases, when small-scale farmers are able to improve their negotiation skills and representation, they might have a better chance at increasing their participation in different markets (Bienabe and Sautier 2005). Skilled farmers need significant human capital to learn marketing requirements which, in turn, reduces negotiation costs (Hobbs 1997).

Marketing plans

Hispanic farmers' marketing plans and future market goal setting strategies were the last set of characteristics analyzed.[29] During the interviews, farmers were requested to think about their farming and marketing plans five years from the time of the interview. Besides recording

[29] McElwee (2006) found that farmers who had a plan for the future of their farms were most likely to succeed in their endeavors than farmers who did not. Resources for beginning farmers usually suggest they start with a clear plan for the future. See for example Michigan Beginning Farmers Resources (http://beginningfarmers.org/); Center for Rural Affairs resources for beginner farmers (http://www.cfra.org/resources/beginning_farmer), and Marketing Strategies for Farmers and Rancher from the Sustainable Agriculture Research and Extension program (http://www.sare.org/publications/marketing/resource.htm)

any future plans, the objective of this question was to observe the farmers' perception about the business environment in their local markets, and whether or not they had plans for adding any new marketing strategies, such as retail and food service, as options for marketing their products.

In order to simplify the analysis, answers were divided into three groups, depending on whether farmers expressly said they would be improving their farm outputs and, thus, their viability (*i.e.*, improve marketing situation), those who answered their farms would remain the same (*i.e.*, no change of marketing situation), and those who based their marketing goals and plans for the future on factors such as better prices, or more production (*i.e.*, marketing situation depends on other factors).

In total, 42 percent of the farmers believed they could improve their farming situation (Table 20). However, none of these farmers mentioned having any specific marketing plan to achieve this goal. Most farmers in this group (12 farmers) responded they would increase production, but they did not mention specific markets they were targeting for their products. Some fruit growers were already planting new trees or bushes that would be ready to harvest in five years. In this same group, six farmers expected to add more land and diversify production, but they had not given much thought to their long-term market strategy.[30] As Escalante and Turvey (2006) found, this lack of attention to future marketing situations may jeopardize the viability of their operations because farmers do not have a clear plan to deal with market changes (Escalante and Turvey 2006).

[30] Adding more land implied buying more farmland or using land that was currently not in production. Diversification of products meant planting different varieties or different crops.

Although most farmers did not specifically mention marketing plans as ways to improving their farm viability, 12 farmers provided marketing examples of what they could do to remain successful. For three farmers, becoming full-time farmers would help them improve the production and marketing opportunities, as they could dedicate more time to their farm business. Similarly, two farmers mentioned they would like to sell to supermarkets in the future. Farmers also mentioned that improving their farms meant buying new machinery to plant and harvest, investing in storage buildings to sell products out of season, advertising their farms with a specific logo, and using new labels such as organic, free range and humane (Table 20). Although these can be considered marketing activities, there was no clear strategy mentioned that would help improve their current marketing situation.

For eight farmers, their marketing plan was to remain the same (Table 21). Out of these farmers, four stated that they could not quit their full-time jobs because it was a secure source of income, whereas farming was not; thus, farming would continue to be an added activity. Three farmers did not want to change because depending on their farms alone as a source of income was too risky. A farmer expressed his concern about keeping up with all the governmental regulations (*e.g.*, GAP certification) that some packing companies required. Similarly, two farmers said they were just fine with the way they were marketing their products. Finally, two farmers described their farms as a "hobby" or a "leisure" activity (Table 21). It can be suggested that for these farmers, having a farm represented mostly a secondary activity, and marketing to increase their income from farming was not a priority.

Finally, eight farmers said they did not know what would happen to their farms in five years (Table 22). For six of these farmers, to continue farming meant depending on markets and

prices. For some blueberry farmers, prices were extremely low and they were pessimistic about harvesting in the future. Others were afraid of not finding markets for their products. Only two farmers expressed the concern that financial support would determine if they continued farming. In these cases, farmers did not consider having a marketing plan or goal an important factor in improving their perceptions for the future.

In addition to a farmer's personal goals, this paper also analyzed whether or not farmers had a business environment conducive of entrepreneurship to maintain farm viability (Dinis 2006). The assumption was that a successful business environment represented one that allowed farmers to pursue a market diversification strategy. In this case study, market diversification was important because farmers who used it as a strategy were more likely to explore new strategies to maintain viability such as trying to sell to retail and food service. However, market diversification alone should not be considered a solution to increase farmer's viability, particularly when there is no market for a particular products, or the market has little growth opportunities (McNally 2001).

As mentioned before, Hispanic farmers who followed a market diversification strategy were more likely to gain experience, and learn different marketing skills. In addition, market diversification is as strategy small-scale farmers utilize to reduce the risk of depending too much on one product or market (McElwee 2006). Increasingly, farmers need to evaluate and develop a portfolio of many different outlets for their products in order to remain viable (Park and Lohr 2006).

Following this, it was expected that farmers would adopt a market diversification strategy dependent upon the difficulty they had in selling their products in different markets, the

experience gained in Michigan over the years, and the kind of products they were growing. The results showed that blueberry growers and the level of difficulty finding new markets for products were significantly correlated with farmer's decision to diversify market channels (Table 23). Recall from the marketing skills section that blueberry farmers in this sample were less likely to diversify market channels, whereas other producers who were not selling blueberries were more open to explore market diversification. In addition, farmers reported that the most difficult transaction cost variables were finding new markets for their products around their area of production, and trusting new buyers to sell their products.

These results suggests that growers who find it easy to locate new markets for their products were 16 times more likely to also follow a market channel diversification strategy than those farmers who find it difficult to find new markets (Table 24). The results show that the estimates of the coefficient for finding new markets (2.78, p=0.04) is statistically significant at 5 percent significance level. Blueberry farmers were less likely to diversify their market channels than other farmers. The odd of a farmer who produces blueberries to use different markets was 0.14 times less than a farmer who does not produce blueberry. The estimate for blueberry (-1.96, p=0.09) was statistically significant at 10 percent significance level. These results might also reflect the lack of alternative markets for these growers to use market diversification as a strategy. This result further implies that in general Hispanic farmers do not have a business environment which can be conducive to use diversification as a marketing strategy.

Summary and Discussion

This research analyzed Michigan Hispanic farmers' marketing experience, skills and goals in accessing and participating in different markets. Using the number of years farming in

Michigan and markets they currently use for their products as indicators of experience, marketing strategies and the ability to deal with transaction costs in their markets as indicators of skills, plans for their farm future and factors affecting market diversification as indicators of goals for the future, the most important outcomes of this research can be summarized as follow:

i) Hispanic farmers in this study have limited marketing experience that could help them significantly improve their farm viability. The majority of farmers have been farming in Michigan for less than 15 years (40 percent have been farming for less than 5 years). Regardless of the number of years farming, Hispanic farmers still struggle with some basic marketing issues (*e.g.*, supply effect on prices, coordination with buyers). Hispanic farmers in Michigan will benefit from more outreach programs designed to address their specific marketing needs. For example, farmers now have field days to learn about soil testing, fertilizer and pesticide use, which can be combined with marketing education, and possibly field marketing days when they can actually interact with buyers.

ii) In terms of marketing strategies, blueberry growers showed heavy reliance on market specialization, particularly fruit packers. Despite the importance of this market for farmers, they still struggle with coordination issues with these buyers. For example, they do not communicate with fruit packers about the expected volume during the season, or even the variety of fruits they were willing to accept. While this market is convenient for farmers, not having an alternative strategy can represent significant losses for these farmers, in the event that these markets face structural changes (*e.g.*, packers' decision to accept production from large-scale farmers only). Again, more support to coordinate activities with fruit packers can be beneficial for farmers. Increasingly, more packers are open to organizing meetings with farmers, as reported by

participants in this research. Hispanic farmers who depend on this channel need to take advantage of this opportunity and find ways to communicate and cooperate with packers.

iii) Hispanic farmers did not use direct-to-consumer channels, despite the growing opportunities that lay within this strategy. Only 22 percent of farmers used some form of direct sales or farmer's markets. None of the farmers knew about community supported agriculture. This result suggests that these farmers have limited knowledge of available marketing alternatives. Farmers who are very small in scale (*e.g.*, fruit production less than 5 acres) could benefit from direct-to-consumer marketing arrangements. For middle size farmers it also represents a useful practice to learn first-hand about the demand in their markets or outside their communities.

iv) Hispanic farmers have developed important marketing skills. When presented with a list of common transaction costs, Hispanic farmers did not find it difficult to deal with getting payments for their products, being trusted by buyers, finding price information or finding quality information. However, they rated finding new markets, dealing with oversupply of products in their markets, meeting with new buyers, and accessing existing markets with their products as difficult. Further analysis show that Hispanic farmers still find it difficult to deal with rapid fluctuation of prices during the season, see quality standards as barriers to obtain better prices, and lack leadership skills to coordinate transactions with buyers. Understanding the transaction costs that are more important and specific to Hispanic farmers can also help develop programs to deal with those issues.

iv) Market diversification has helped farmers developed useful skills. Thirty two percent of Hispanic farmers use this marketing strategy. While farmers who diversified markets were

more likely to have approached a retail or food service to sell their products, none of the Hispanic farmers had experienced selling to mainstream retail and food service channels, which can be a barrier in future involvement with these markets. Hispanic farmers who are interested in market diversification will benefit from accessing current programs aimed at coordinating farmer-buyer business relationships, and more exposure to programs geared to created more connections with these type of buyers. Other marketing strategies could include partnerships to participate in farm-to-school programs, participation in producer associations, and partnerships with other growers in different community programs.

vi) Regarding their farming future, Hispanic farmers were positive about the improvements and growing perspectives of their farms. Only 12 percent said they would quit farming if prices did not improve, and four percent would quit if they did not receive assistance. Although 24 percent cited the desire to increase their production in the future, none of these farmers had a specific marketing plan for the future. While community organization and Extension programs need to assist all farmers, it is also important to carefully identify farmers with a desire to increase the viability of their farm from those who see farming as leisure activity, and develop an appropriate program for each group. Defining their specific plans for the future can help promote programs for these farmers.

vii) Marketing programs with community food systems emphasis will benefit Hispanic farmers and the opportunities to increase their farm viability. For example, access to conventional retail and food service channels, while challenging, could represent an alternative marketing strategy for farmers. Retail and food service companies are progressively and proactively seeking to partner with local farmers, which represent an opportunity for small-scale

farmers to gain the benefits associated with this channel. However, Hispanic farmers still need leadership support that could guide them to successfully partner with these important buyers.

The exploratory nature of this case study provides limited answers to address the marketing needs and opportunities of Hispanic farmers in Michigan. As previously mentioned, the results of this research are applicable only to this case study. However, this research offers some important findings that will help Hispanic farmers, and those working with them, assess the opportunities and barriers they need to consider when evaluating marketing strategies.

While this study covers a significant number of farmers, the type of sampling methods and the lack of better information about Hispanic farmers represented barriers to including more farmers. The need to focus on Hispanic farmers is increasing, given their growing number in Michigan and the Midwest. Hispanic farmers are becoming more important in Michigan and in U.S. agriculture, and their success will only contribute to the prominent role of agriculture as an industry in the state. A more general study will efficiently target more pressing issues facing these farmers, given the limited Extension resources in Michigan.

While this project allowed for outreach outcomes from its beginning, outreach activities were limited. More participatory-action research will only benefit Hispanic farmers who usually do not use Extension channels. Programs designed to collect information while encouraging farmers to learn more about their markets can be cost-effective and beneficial. For example, the experience of selling to a retail and/or food service market cannot be taught in classrooms or seminars, it requires field experience. During this research, some farmers were already learning about programs and agencies that could help them with their farms. In some cases, farmers also learned of and started to participate in the Michigan Hispanic Farmers Association and the

cooperative “Farmers on the Move,” which was funded to help marketing and production need of Hispanic farmers. However, a more systematic assessment of how successful these types of outreach are is needed.

Areas for future research include an assessment of *participation in research and outreach programs*. While this research is the first to explore marketing needs among Hispanic farmers in Michigan, and the number of farmers participating exceeded original expectations, more participants need to be included for two main reasons. First, Hispanic farmers have been historically underserved by different outreach programs in the U.S. and the Midwest, and increasing the number of participants will assure that most farmers are aware of the services available to them and know how to get these services. Second, increasing the number of participants in research studies will only provide more information about this group of farmers, and at the same time it will increase generalizations and allow for significant comparisons that can be made when using larger sample size.

In the Midwest, there have been efforts to support Hispanic farmers. However, Hispanic farmers do not seem interested in participating. It is important to investigate reasons beyond the language barriers that prevent farmers from participating in programs designed to help them. It is also important for research scientists to collaborate in order to leverage the limited resources available to develop outreach programs for Hispanic farmers.

Another area for future research includes *new partnerships with food distribution companies.* Companies and independent buyers need to be included in programs aimed at helping Hispanic farmers. Models of best business partnerships need to be developed with farmers and companies or buyers, interested in being supplied by these farmers. This inclusion

can help define a more effective way of measuring what constitutes success factors, with respect to access to and participation in these channels. In addition, it is important to assess whether cooperatives, associations or other collective action efforts are adequate for farmers and companies.

Finally, Hispanic farmers and agents working with them need to conduct a *holistic* a*ssessment of benefits and costs of farming*. The number Hispanics entering farming in Michigan and the Midwest is growing. However, research shows that Hispanics tend to follow the path of people who migrated before them. Also, in some cases, it is believed that farming provides a better quality of life for farmers. However, there is a need to carefully assess the social and economic benefits that entering into farming represents to these farmers and communities. Hispanics can benefit from this type of research by making more informed decisions about their future.

Table 12. Land Use for Fruit and Vegetable Production and Number of Hispanic Principal Operators in the Midwest

State	Land Use for Vegetables, Fruits and Berries	Hispanic principal operator		
	----------Acres ----------	--Farms--	--Acres---	Average --- farm size---
Illinois	75,639	325	57,506	177
Indiana	39,413	217	35,333	163
Iowa	11,423	346	103,666	300
Kansas	9,854	555	335,823	605
Michigan	308,860	615	54,795	89
Minnesota	247,519	296	101,372	342
Missouri	38,257	444	76,492	172
Nebraska	24,812	166	157,066	946
North Dakota	94,592	92	149,958	1,630
Ohio	57,399	302	44,549	148
South Dakota	1,805	116	87,645	756
Wisconsin	321,427	245	29,732	121

Source: U.S. NASS 2009

Table 13. Years Farming in Michigan

Years	Participants	Percent
1 to 5	21	42
6 to 15	22	44
16 to 30	3	6
more than 30	4	8
Total	50	100

Table 14. Years Farming in Michigan by Origin

Years	Origin	
	Mexico and Latin America	U.S.
	----------Number----------	
1 to 5	15	4
6 to 15	17	2
16 to 30	2	1
More than 30	0	4

N=45

Chi-square: 14.603 (p=0.002)

Table 15. Examples of Participants Previous Experience Farming

• Farming in country of origin	They have experience as farmers in Mexico He has never done anything with blueberries before. In Mexico he planted corn but they left it because it was expensive He used to live in Mexico where everything was organic and without chemicals, without fertilizers, everything was 'wild' When he was in [his country] they used to have pineapple plantations and all sort of animals "I have it in my blood to be a farmer" I always farmed and I like to do it
• Knowledge from their farm work background	His dad was a migrant worker and he bought the land from the farm owner He started over 30 years ago. They arrived in 1952. He and his family were farm workers She was born in Mexico, moved to Texas, grew in Indiana, Michigan is now where she is from He comes to Michigan during summer season to take care of his farm. During winter he takes cares of his farm in Texas. He also take farm workers to North Carolina

Table 16. Sales by Market Channels

	Direct from Farm	Farmer's Markets	Wholesale - Brokers	Local Store - Supermarket	Packers
Participants					
	---------- number ----------				
Total selling to	6	5	15	5	34
Fruit producers	1	3	9	1	33
Non-fruit producers	5	2	6	4	1
Sales	------ ---------- (%) -------- ----------				
Average	42	61	49	46	93
Minimum	10	1	4	1	40
Maximum	100	100	100	90	100

Table 17. Use of Multiple Market Channels by Type of production

Production	Use multiple market channels			
	Yes	No	Chi square	P-value
Fruits	8	30	8.72	0.003
Vegetables	8	4		
Only one product	6	26	7.172	0.007
More than one product	10	8		
Less than 5 acres	7	14	0.03	0.863
5 acres or more	9	20		

Table 18. Intention to Sell to Supermarkets (SM) and Restaurants by Type of Production

Production	Have tried to sell to SM or Restaurant		Total
	No	Yes	
	----------number ----------		
Fruits	35	3	38
Non fruits	5	6	11
Total	*40*	*9*	*49*

Chi-square 12.382 (p=0.000)

Table 19. Difficulty Dealing with Transaction Costs Variables

Statement (How difficult is for you to..)	Level of difficulty			No answer
	Difficult	Neutral	Not difficult	
	----------Respondents----------			
Find new markets for your products	19	5	22	1
Find price information for your products	10	3	32	2
Find quality standards information	7	2	29	9
Access existing markets with products you currently grow	14	4	26	3
Trust people who buy products from you	4	8	25	10
Be trusted by buyers/customers	7	2	34	4
Get promptly payment	5	0	39	3
Meet new buyers in your local markets	14	7	25	4
Deal with oversupply of products in your market	19	4	21	3
Negotiate agreements/contracts to sell your products	11	-	26	10

Cronbach's Alpha[31]= 0.796

[31] Cronbach's Alpha measures the internal consistency a set of items are as a group. A "high" value of alpha is often used as evidence that the items measure an underlying construct.

Table 20. Hispanic Farmers' Expected Improvements for the Future

Plans for the future	Respondents
Increase farm production	12
Add more land	6
Diversify products	6
Become a full time farmer	3
Sell to supermarkets/stores	2
Better machinery and buildings	2
Advertisement of their farm	2
Use labels (*e.g.*, organic, free range)	2
Hire workers	1

Table 21. Hispanic Farmers' Reasons to Continue the Same in the Future

Plans for the future	Respondents
Continue working part-time	4
Continue with same production strategy	3
Continue with same marketing strategy	2
Continue as a hobby farmer	2

Table 22. Hispanic Farmers' Reasons Quitting Farming in the Future

Plans for the future	Respondents
Quit farming if markets and prices do not improve	6
Quit farming if financial help is not available	2

Table 23. Correlation Results for Sales to Different Markets

Variables		Statistics	
Description	**Name**	**Chi-Sq**	**Probability**
Producers of Blueberry [a]	Blueberry	14.60	0.000
Find new markets for your products [b]	NewMkt_2	3.72	0.054
Trust people who buy products from you [b]	Trust_2	1.14	0.285
Years farming in Michigan [c]	Years_MI2	1.12	0.291
Access existing markets with products you currently grow [b]	Access_2	0.92	0.337
Deal with excess supply of products in your market [b]	Oversupply_2	0.52	0.471
Find quality standards information [b]	Quality_2	0.31	0.580
Get promptly payment [b]	Payment_2	0.09	0.766
Find price information for your products [b]	PriceInfo_2	0.05	0.818
Meet new buyers in your local markets [b]	NewBuyer_2	0.01	0.923
Negotiate agreements/contracts to sell your products [b]	Negotiate_2	0.01	0.927
Be trusted by buyers/customers [b]	Trusted_2	0.00	0.959

[a] 1=produces blueberry; 2= does not produce blueberries

[b] 1=difficult; 0=not difficult

[c] 1=established farmer; 0= new farmer

Table 24. Table Exact Logistic Regression Results

Variable	Coefficient	p-value	Odds Ratio
Blueberry	-1.96	0.09	0.14
Newmkt2	2.78	0.04	16.07
Trust2	-2.08	0.27	0.13
Years_mi2	-1.84	0.16	0.16

Goodness of fit test: Model Score=20.453; Pr>=score = 0.0001

Outcome variable: Use diversified market channels (yes/no)

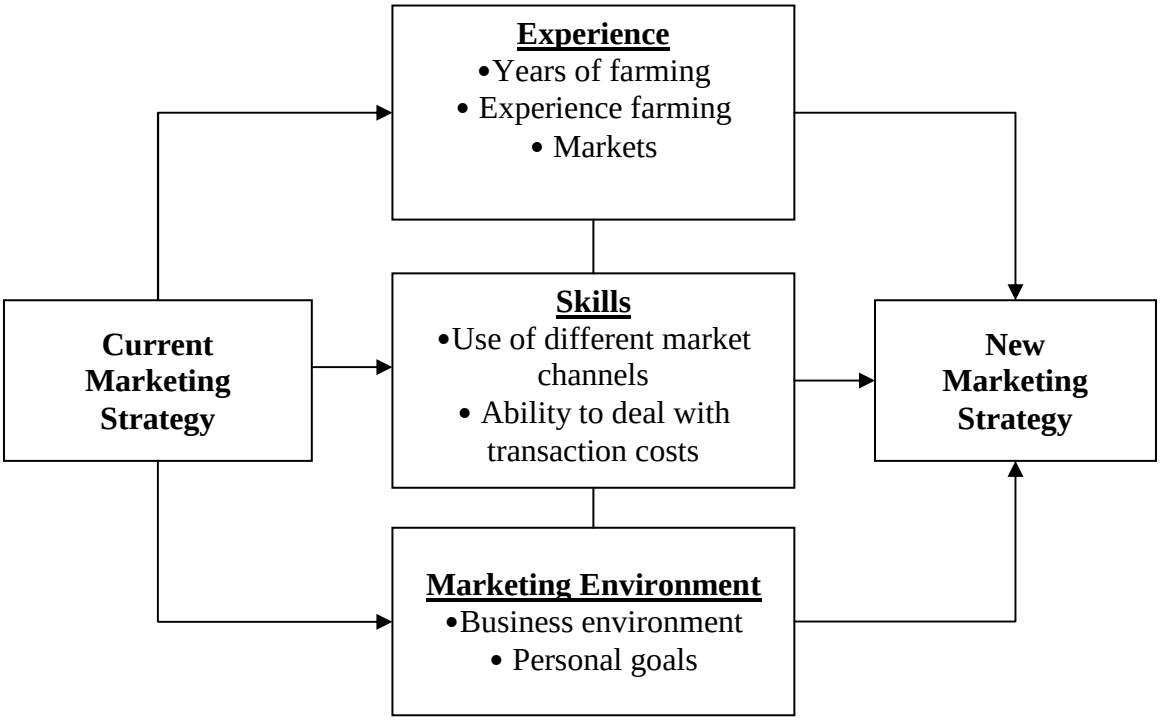

Figure 2. Indicators to Measure Hispanic Farmer's Marketing Experience and Skills

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CHAPTER 4

MICHIGAN HISPANIC FARMERS' USE OF SOCIAL NETWORKS TO ACCESS MARKETING INFORMATION

Introduction

In recent years, Hispanics have increasingly gained attention from federal, state and community-based organizations, as they have become the fastest growing population in rural areas, and are likely to be beginning farmers (Kandel and Cromartie 2004; Fry 2008; Ahearn and Newton 2009). Hispanic farmers are also more likely to be limited resource and socially disadvantaged farmers (Dismukes *et al.,* 1997; Kleiner and Green 2008). Despite growing efforts to assist new, as well as the more established farmers, Hispanic farmers still cite limited access to marketing information as one of the most serious barriers they face in competing for markets and improving their farm viability.

In general, marketing information is very important for farmers and farm management. Essentially, marketing information represents an 'aid to decision-making' (Gofton 1997). Farmers use it to identify opportunities and problems, to evaluate actions, monitor performances and improve the understanding of markets and marketing processes. More importantly, information reduces the risks of not making the right management decision (Gofton 1997). Thus, for limited resource and socially disadvantaged farmers with limited access to marketing information, finding the right mechanisms to access such important information is necessary to succeed in the highly competitive agro-food system.

Although social networking has gained consideration as a tool to facilitate and supply marketing information (Wilkinson 2006), there have been limited studies analyzing it among limited resource and socially disadvantaged farmers, especially Hispanic farmers. Studies on migration and ethnic entrepreneurship suggest that Hispanics have been particularly successful at using their social networks to increase social capital and access important market information when they first move to new places (Tienda and Raijman 2004; Hoy 2007; Holguin *et al.,* 2007). Thus, it is possible that these farmers might also benefit from using their social networks as a means to increase access to marketing information and successfully compete in market ventures.

This paper illustrates the importance of the various social networks used by Hispanic farmers, and their potential to be used to access more information and increase the competitiveness among Hispanic farmers in Michigan. Finally, this paper analyzes barriers and offers key recommendations farmers and agents should consider for future marketing outreach.

Background

In the U.S., Hispanics[32] continue to be the fastest growing population in non-metropolitan areas, and their presence in rural areas has important economic implications for these communities (Kandel and Cromartie 2004; Fry 2008). In the 1990s, they represented 25 percent of non-metro population growth outside the Southwest, and by 2000, around 50 percent of all Hispanics who migrated to non-metro areas lived in the Midwest and Southeast (Kandel and

[32] According to the U.S Census, "Hispanic" is a label used to group individuals living in the U.S. who have some background or are from Spanish-speaking countries in Latin America. The U.S. census considers Hispanics all who indicate their origin as Mexican, Puerto Rican, Cuban, Central or South American, or some other Hispanic origin. Hispanics can be of any race (Hoy 2007; U.S NASS). In this paper, Hispanic farmers include newcomers (e.g., immigrants from other countries) and/or established individuals whose families have farmed from generations and are originally from the U.S. (Swisher *et. al*. 2007).

Cromartie 2004). This influx of Hispanics into the Midwest and Southeast is said to have prevented the rapid depopulation of several non-metro counties and its negative economic effect (Kandel and Cromartie 2004).

When Hispanics migrate to non-metro areas, they are more likely to be beginning farmers (Ahearn and Newton 2009). As an example, in the 1990s, the number of Hispanics becoming farmers in the Midwest grew very rapidly, particularly in Michigan. Currently, Michigan ranks number one in the number of Hispanic principal operators[33] (U.S. NASS 2009). Hispanic farmers are also likely to be involved in the production of specialty crops. In Michigan, Hispanic farmers produce crops, such as blueberries, apples and various vegetables, in which Michigan currently ranks among the top twenty in the country in production and sales (U.S. NASS 2009). As a result, Hispanic farmers' economic performance is important for Michigan's economy, especially since agriculture and related agro-food and energy system contributes around $64 billion and supports more than 1 million jobs in the state (Peterson *et al.* 2006).

[33] The U.S. Census of Agriculture defines principal operators as people "primarily responsible for the on-site, day-to-day operation of the farm or ranch business. This person may be a hired manager or business manager" (U.S. NASS)

Despite the contributions that Michigan Hispanic farmers could potentially provide to sustain the competitiveness of Michigan's agricultural industry, they continue to struggle to maintain farm viability and competitiveness. Hispanic farmers in Michigan remain limited resource[34] and socially disadvantaged farmers.[35] Compared to other farmers, Hispanics generally operate smaller farms and their sales of agricultural products are below the average in the state (U.S. NASS 2009). More than 50 percent report sales of $5,000 or less during a year, and there is no official record of off-farm household income (U.S. NASS 2009).

With the passage of the federal Outreach and Technical Assistance Program for Socially Disadvantaged Farmers in the 1990s, more targeted efforts were developed to promote and establish marketing and production systems that could improve viability for Hispanic and minority farmers (Kleiner and Green 2008), Hispanic farmers still cite limited access to marketing information[36] as one the most serious constraints they face to compete in their markets (Swisher *et al.,* 2007). In the most recent study on behalf of the National Institute for Food and Agriculture (NIFA), Swisher *et al.* (2007) found that most Hispanic farmers did not know where to look for relevant marketing information for their farms. Moreover, those who had access to information from Extension services mentioned that the information available was not

[34] According to the Census, limited-resource farms have "market value of agricultural products sales of less than $100,000, and total principal operator household income of less than $20,000" (U.S. NASS 2009).

[35] Socially disadvantaged farmers is a label used by the United Stated Department of Agriculture (USDA) to indicate certain minority farmers who, because of their social, cultural, customs or language barriers, their minimal awareness of the USDA programs, limited management skills, and their level of formal education usually below county averages, were prevented from accessing resources available to improve the viability of their farms (FACT 1990; Dismukes *et al.* 1997).

[36] Marketing information is the result of marketing research activities. According to the American Marketing Association, marketing research is "the function that links the consumer, customer, and public to the marketer through information" (AMA 2008)

appropriate for their type of farm operations (Swisher *et al.*, 2007). [37] In addition, some of the best marketing information was available on the Internet, but Hispanic farmers generally did not use the Internet to access marketing information (Swisher *et al.*, 2007). As a result, the available outreach information did not improve farmers' ability to compete with other well-established farmers.

While Hispanic farmers generally do not use traditional information channels, such Extension services and the Internet, they do seem to rely on their social networks for information and support. In Michigan, Santos and Castro-Escobar (forthcoming) and Lopez-Ariza (2007) noted that Hispanic farmers who did not know much about agricultural production when they arrived based their decision to invest in agriculture largely on what they observed from their relatives, friends or "paisanos"[38] who ventured to the state before them (Lopez-Ariza 2007; Santos and Castro-Escobar forthcoming). While this was a very important source when they arrived in Michigan, little is known on how best to access marketing information, and if social networks are a relevant method.[39]

Given the importance of marketing information in increasing farm viability, and the difficulties Hispanic farmers have had accessing this information, the objective of this study is to

[37] According to Swisher *et al.*, (2007), Hispanic farmers complained that most of the available information is usually designed to help large-scale farmers.

[38] "Paisano" is a Spanish word to indicate a person from the same community. Paisano networks were formed in rural America when Hispanics from main cities moved to rural areas where they found jobs. Since most migrants kept connections with old ties in their country of origin, they were able to inform some of these people about job opportunities, which promoted more migration. Later, the new migrants followed similar pathways which made this migration very dynamic (Durand and Massey 1992; Massey and Espinosa 1997; Winters *et al.*, 2001).

[39] For example, Swisher *et al., al.*, (2007) found that many times established farmers who sought help from other farmers did not receive accurate marketing information (Swisher *et al.*, 2007). However, the research did not address whether or not this was due to the lack of information, or farmers' interest in keeping valuable marketing information secret.

analyze whether Hispanic farmers' social networks could represent a channel to access timely and accurate marketing information, thus building their competitive advantage.

Conceptual framework

Social networks are sets of relationships linking social actors or social ties which originate through society. Social network theory studies connections among people, such as collaborations between friends and family, and the influence people have on other people (Wasserman and Faust 1994). Social networks are important to access and share quality marketing information. Wilkinson (2006), based on the work of Granovetter (1974), identified social networks as conductors or "vectors" through which market information is shared in agro-food networks. Wilkinson explained that social connections are important because they influence the development of marketing skills and the conditions to access market opportunities (Wilkinson 2006).

Social networks also facilitate the flow and quality of economic information (Granovetter 2005). Granovetter illustrated this point by analyzing the importance of acquaintances to find information about employers, employees and jobs (Granovetter 2005). Similarly, Mattson (2003) suggests that in different markets (not just labor markets) people also exchange information to coordinate activities and perform transactions (Mattsson 2003).

Social networks are different depending on the strength of relationships among members. Granovetter (1973) identified two main networks: "strong" and "weak" ties. Strong ties are especially close relationships, such as family and friendship, whereas weak ties are said to be emotionally distant relationships (*e.g.*, acquaintances) (Granovetter 1973; Burt 1997). Interaction

among members in strong ties is very frequent, usually daily, whereas in weak ties, networking is relatively infrequent (Burt 1997) (Figure 1). In addition, the length of relationships in strong ties usually extends for long periods of time, while in weak ties they seem shorter (Burt 1997).

Although both weak and strong networks are useful to share information, they are useful for different types of marketing information exchange. Burt (1997) found that the level of proximity or emotional closeness among members with strong ties was faster, and the speed of communication contributed to an increased competitive advantage among members in this network (Burt 1997). In addition, strong network ties are good in creating trust and enforcing obligations (Granovetter 1973; 1983). For marketing purposes, trust is important because it reduces the cost of finding information (Granovetter 2005).

On the other hand, the weak ties or extended relationships people develop outside their strong networks ties are important to access new information and to pursue resources for market transactions (Granovetter 1973; Burt 1997). An example of this is the work of Holguin *et al.* (2007), who found that entrepreneurs who join business or community organization networks are more likely to form new links with new people who are potential customers, gain more knowledge about current market trends, and, most importantly, receive up-to-date information which is fundamental to maintain competitiveness (Holguin *et al.*, 2007). In contrast, Atterton (2007) found that rural networks of small-business owners in Scotland were less likely to be open to new information from outside their rural setting, a situation that prevented them from accessing new and relevant marketing information (Atterton 2007).

In addition to weak and strong tie networks, Burt (based on Granovetter's network theory), found that the indirect connections in social networks, which he called "structural

holes," provided not only new sources of information but also prevented the overlapping or redundancy of information that tends to flow in networks (Burt 1997; 2002). People closely connected (*i.e.*, cohesive contacts), as in the case of strong ties, would likely have access to the same information. Similarly, people who share contacts in weak network ties, which Burt calls "structurally equivalent" contacts (*e.g.*, a store manager for two different farmers), also have redundant information because they share the same contact. However, people who are indirectly connected to different groups are able to 'bridge' to more information because they have more indirect connections and, in addition, they receive diverse information with less probability of being repetitive or redundant (Burt 2002).

With regard to the type of social networks Hispanics have developed, there is extensive documentation that they have been good at developing and keeping strong ties, while struggling to form weak ties. Studies on migration and settlement in rural areas found that for Hispanic migrant family and "paisano" networks were important to generate information about jobs and help newcomers settle in rural America (Durand and Massey 1992; Massey and Espinosa 1997; Winters *et al.*, 2001; Massey 2008). In Iowa, Lewis (2009) observed that some Hispanic immigrants decided to become farmers as a way to interact with other farmers and neighbors (Lewis 2009). In Michigan, migrant networks are also believed to have helped Hispanics purchase land to begin farming (Lopez-Ariza 2007; Garcia *et al.*, 2008; Leach and Bean 2008; Santos and Castro-Escobar forthcoming). [40] Despite the benefits of strong network ties, Garcia *et al*. (2008) also found that Hispanic farmers widely used of "Presta Nombres," a common practice

[40] Similar studies of Hispanic small businesses and ethnic entrepreneurship have shown that social connections were a source of social capital which have helped Hispanic business owners remain competitive in urban areas (Tienda and Raijman, 2001; 2004; Holguin *et al.*, 2007; Hoy 2007; Menzies *et al.*, 2007). In cities, Holguin (2007) found that an advantage for Hispanics entrepreneurs was their heavy reliance on their family networks which was helpful particularly when firms were starting up (Holguin *et al.*, 2007).

of lending a name to a family member or friend so these people can conduct businesses, which lead to informal farming arrangements to maintain farm viability, and possibly contributed to increasing the isolation of certain farmers when they arrived to their new communities (Garcia *et al.*, 2008).

Strong ties to friends and family represent an important source of information for entrepreneurs; however, the reliance on strong ties alone can prevent growth and expansion. Rauch (2001) and Tienda and Raijman (2001) found that strong networks of friends and kin (*i.e.*, informal networks) within ethnic communities in main U.S. cities helped Hispanic entrepreneurs find appropriate and reliable retail outlets for their products, given that they had limited knowledge about markets when they first arrived (Rauch, 2001; Tienda and Raijman, 2001). However, lack of weak ties and well-organized networks (*e.g.*, Rotary Club, business association) was detrimental for business expansion. Hispanic entrepreneurs who, for the most part, were not affiliated with formal institutions that would help them connect with new customers, were more likely to struggle with business growth and expansion, and more likely to remain isolated (Rauch 2001; Tienda and Raijman 2001; 2004; Holguin *et al.*, 2007). Moreover, Holguin *et al.*, (2007) found that Hispanic business owners had harder time accessing relevant marketing information for their businesses than other ethnic owners (Holguin *et al.*, 2007).

Considering the information presented above, this paper anticipates that similar findings may be found for Hispanic farmers in Michigan. It is expected that Hispanic farmers have developed and maintained extensive strong network ties. However, excessive reliance on this type of network has prevented them from accessing new quality marketing information. In addition, Hispanic farmers face difficulties developing weak ties and particularly indirect

connections, or 'bridges', which would give them more new and useful marketing information to increase their competitive advantage.

In order to address the importance of social networks in obtaining marketing information, this paper seeks to illustrate the social network of Hispanic farmers in Michigan, including the strong and weak ties they have formed in their communities and outside, and analyze the type of marketing information and support they obtain from these networks. The results of this analysis are expected to explore the benefits of social networks to access marketing information and ultimately, contribute to providing farmers and organizations working with them with information to develop policies and programs that meet their marketing needs.

Methods of Data Collection and Analysis

This paper uses case study approach (Yin 1998; 2009). A case study approach represents a particularly useful tool because it offers a means to explore new issues, such as the social networks among Hispanic farmers in Michigan, and the role of these networks in accessing marketing information and increasing farm competitiveness.[41]

The selection of cases considered the Hispanic farm population in Michigan. According to the U.S. Census, there are 615 Hispanic principal farm operators in Michigan. Only farmers producing fruit and vegetables were selected. They use marketing channels that are specific to these crops, and are different from the marketing channels used by field crop or dairy farmers.

[41] According to Yin (1998, 2009), case studies provide a framework to gain more knowledge about a specific group and the issues affecting this group. Case study research focuses on answering question related to "the 'how' or 'why' some social phenomenon work" (Yin 2009, p.4). In addition, case study allows for building new theories (Eisenhardt 1989)

There are approximately 166 Hispanic farmers in Michigan who are producers of fruit, vegetables and berries. From this population, two methods were used to identify and recruit participants. First, key informants from different groups currently working with Hispanics in Michigan provided the names and contact information of some potential participants. Second, snowball sampling, in which one participant yielded a new set of contacts, provided additional potential participants. These two methods to identify Hispanic farmers were used to prevent missing farmers who do not frequently interact with other farmers, in which case snowball sampling would have only provided a limited number of farmers. After these contacts were made, a total of 50 Hispanic farmers in Michigan were identified and agreed to participate in this study from July 2009 to May 2010.

The study used a mixed-method data collection strategy to collect information from participants. It included structured in-depth interviews and group meetings, surveys of farm and demographic characteristics and participant observation during seminars, meetings and a farm conference.[42] All participants followed the same line of inquiry to ensure that results could be compared from different people and groups (Patton 2002). The interviews and group sessions were audio-recorded only when farmers agreed to it. Follow-up interviews were conducted as necessary to clarify concepts and themes (Rubin and Rubin 2005).

In order to describe their social network, farmers were asked to identify and name people they recognized as influential in providing marketing information, as well as the frequency of their interaction with these people (*e.g.*, daily, weekly, every other month), the specific relationship with these people (*e.g.*, family members, neighbors), and the place where they

[42] Appendix A of this dissertation contains an example of the survey questionnaire.

usually interacted (*e.g.*, church, family reunion, central market). Similarly, farmers were asked to provide information about people who would come to them asking for marketing information.

With this information, strong and weak network ties were built based on farmers' ranking of the top three people who provided marketing information. For the purpose of this research, the network farmers primarily belonged to was the first person they named as important for marketing purposes. However, each identified group was not mutually exclusive because in some cases farmers belonged simultaneously to all networks.

All the information collected was entered into the computer using NVivo software for the analysis. Since all participants followed a structured interview, the first set of codes was based on the interview questions. Next, a sub-coding was constructed to account for emerging themes that resulted from answers farmers originally provided (Rubin and Rubin 2005). For example, farmers first provided the name of the person from whom they received marketing information; then a marketing information code was created to include the type of marketing information they received. Among other things, farmers cited situations in which other farmers or friends gave them information on markets where they could sell their products, kinds of varieties that should be planted to obtain better prices, information about prices a packing company was paying that day, or volume a broker was willing to buy, or similar information. A different sub-code was marketing support, which included references to situations in which people would collaborate with each other to sell a bigger load, or they would provide products to a family member so he or she could fulfill a delivery, or such similar answers.[43]

[43] Appendix B of this dissertation contains a table with codes and sub-codes used.

Four different social networks were identified among Hispanic farmers in Michigan (Figure 2) based on Granovetter's (1974) and Burt's (1997) categorization of different social networks, based on the level of emotional closeness, frequency of interaction and duration of relationship (Granovetter 1973; Burt 1997).

Results

Hispanic farmers in Michigan have built mostly strong ties, comprised of family and friends. However, these farmers have also developed a rich network of local buyers, which represent important examples of weak network ties. On the other hand, farmers seem to be less likely to form extended networks outside their communities, or 'bridges', which would increase their connections to indirect sources of information, and are very important to access new and relevant marketing information (Burt 2002).

Family networks

In total, 38 percent of farmers (19 farmers) indicated family networks were the main source of marketing information and support, confirming the importance of these types of ties for farmers. In this network, a father would provide information or advice to sons and daughters, or older brothers would advise younger family members. Information also tended to flow from men to women. The relatively vertical structure of information sharing among members implied that, in some cases, older family members would not listen to younger family members who could have had some business ideas for the family farm, which represented a barrier to expand their entrepreneurship. During an interview with a son and father, the son expressed his desire to diversify production to reach different markets, such as selling directly to supermarkets, but his father did not considered that a good business idea and, thus, they would not pursue that strategy.

As Lopez-Ariza (2007) and Santos and Castro-Escobar (forthcoming) found, most information shared within family networks was about production practices and, with regard to marketing, farmers would be likely to imitate other family members (Lopez-Ariza 2007; Santos and Castro-Escobar forthcoming). For example, farmers would sell their products to the same fruit packer their family members used before. In many cases, some farmers would grow products assuming that they would be able to use the same distribution channel of other family members, without researching their marketing opportunities before starting to farm. This situation created some risks for farmers, particularly when markets were saturated and not accepting more products.

The most important information shared in the family network involved market information (where farmers could sell their products) and current prices. The main advantage of using this network was the speed at which they share information (Burt 1997). Once a family member knew about current prices, he or she would rapidly call or send a text message to other family members, spreading the news very quickly. Similarly, farmers delivering to fruit packers (*e.g.*, blueberry, apple) would also know about which markets were open to receive products. This represented an important advantage for farmers relying on family members for marketing information.

Given the level of emotional closeness among members – which is said to increase the level of trust and reduce the risks of cooperating among members in social networks (Granovetter 1985; McLaren 1999; Batt 2003) – it was expected that more farmers would be supportive of other family members, particularly to increase their competitiveness in local markets. However, only one farmer indicated that he and his sons were planning to register their

farm as a corporation in the future to increase their competitive advantage. Other Hispanic farmers did not report communicating with family members about potential market or alternatives to accessing new markets, nor did they plan to collaborate in an effort to increase their competitive advantage, such as combining loads of harvest production to negotiate better prices with buyers.

As close as family ties were among Hispanic farmers, participants had a hard time trusting other family members. For example, four farmers mentioned some form of collaborative marketing with other family members, but the relationship resembled a broker/farmer situation, where the farmer produced and the broker sold the harvest production for a commission. Of these four farmers, only two knew where their family member was selling their products.

In many cases, family networks did not work well for marketing purposes. During a follow-up meeting, a farmer expressed his frustration with the price he was receiving from his broker/brother and was thinking about breaking away from this deal. In addition, a different farmer commented that he and his brothers started their farm together when they moved to Michigan. Later, his brothers did not work as hard as he did, so he decided to break away from his brothers and start his own farm. Now, he feels his brothers are just benefiting from the good reputation he has given to their last name.

As Granovetter suggested, the fact that Hispanic farmers had strong ties with their family members did not mean the absence of wrongdoing among members, nor did it mean that they would automatically work together. A farmer commented that she no longer wished to sell her farm production to a family member because she suspected this relative was paying her a very low price for her products.

Friend Network

The next strong-tie network for Hispanic farmers was the friend network. In total, 30 percent of farmers cited their friends as their main source of marketing information. As previously reported, in some cases Hispanic farmers ventured into farming because a person before them migrated to Michigan and helped them establish their own farms (Garcia *et al*., 2008; Santos and Castro-Escobar forthcoming). While not all friends were farmers, Hispanics trusted the production and marketing expertise their friends had acquired from living in Michigan many years before they arrived. New farmers found the information they received from these friends to be very valuable when they established their farms.

In this network, the relationships among participants were relatively close. Farmers usually met with their friends weekly. Usually, they tended to have their farm near these friends, and would interact with them at different venues (*e.g.*, church, off-farm job). While Hispanic farmers would consult with their friends about production practices, they were less likely to share marketing information which, to some extent, was expected, since marketing information is usually a decision-making tool used to compete in markets (Gofton 1997). However, given that, culturally, Hispanic farmers had established close relationships with their "paisanos," it was expected that more farmers and friends would support, or even collaborate with each other to increase their competitiveness in local markets. [44] Farmers explained that the marketing advice

[44]Paisanos were an important influence in migrating to rural areas (Massey and Espinosa 1997; Winters *et al.*, 2001) and start farming in Michigan (Lopez-Ariza 2007; Garcia *et al.*, 2008)

they received from their friends was a one-time help upon arrival in Michigan; after that, most farmers would observe and imitate their friends' marketing strategy. [45]

"Imitators" created a barrier for some farmers to share marketing information. More than 10 farmers responded that they were not sharing marketing information with anybody. One farmer explained that he did not want to share this information time he would change markets, other farmers would try to imitate him; later, everybody would take their products to the same market, which made prices decrease and thus, affecting his income. Another farmer said that he was "selfish" with his marketing information. In the words of one farmer, marketing is "a big great secret" among Hispanics in general.

In addition to issues surrounding the imitation of their marketing practices, farmers also perceived that they were isolated from their friends' groups, and would not share anything with them. In one case, two farmers, they felt that their "paisanos" did not see it with "good eyes" when they were successful in their farm endeavors, so they did not want to share their successes. One farmer felt "discriminated" within the same Hispanic community because he was not from the same region as other Hispanic farmers. Similarly, another farmer explained that he sometimes received incorrect information from some friends, or they tell him to do exactly the opposite of what was supposed to be done. Though later this farmer acknowledged that this misinformation was a result of his friend's lack of knowledge on the matter, he was still doubtful about talking to friends about marketing and marketing information. This situation contributed to

[45] This finding is consistent with Lopez-Ariza and Santos and Castro-Escobar who also reported that most Mexican farmers coming to Michigan would imitate the marketing and production strategy their friends followed when they arrived to Michigan (Lopez-Ariza 2007; Santos and Castro-Escobar forthcoming)

the decrease in trust among farmers and their friends, and competition rather than cooperation was most likely to occur.

Despite the negative views about their friends, or "paisanos," Hispanic farmers in Michigan were already experiencing the need to collaborate with other farmers in their communities. During a group interview three participants mentioned that they had decided it was time to join efforts because they felt mistreated by the packing company to which they were delivering. These farmers expressed their frustration when other farmers with larger loads delivered their products and received better treatment from buyers. On the other hand, a different farmer said that she wanted to join an association because she felt MSUE programs were not delivering the kind of information small-scale farmers needed. This farmer expressed her frustration at getting attention from Extension agents because of the size of her farm. She acknowledged the need for better communication and collaboration among farmers, otherwise they would not receive the attention that large-scale farmers would get. [46]

[46] During data collection stage, a new cooperative of Hispanic farmers was formed with support from a USDA grant. The main purpose of the cooperative was to help farmers on different aspects of farming, including marketing. However, participants interviewed in this study were not sure how this cooperative would function or even how having a cooperative could be beneficial for their farms. Some farmers showed interest in this new venture mainly because of the information and marketing opportunities they thought they would be able to receive. Two farmers were thinking they could develop a label together and be able to buy packing materials, using the cooperative name. In addition to the cooperative, an association of Hispanic farmers was registered with the Michigan Department of Agriculture. However, during two different participant-observations conducted during meetings of the association and the cooperative, farmers did not seem to understand what exactly their participation entitled or what they needed to do. For example, farmers did not take notes during the meetings; the main board members did not participate in these meetings, and there was no decision about future meetings. During interviews with some participants after the meetings, they were not sure about the difference between an association and a cooperative. Although it goes beyond the objective of this research to analyze the benefits and barriers of the cooperative and the association, they exemplify the

Local Buyer Networks

The local buyer network represents a form of weak network tie for Hispanic farmers. This network includes buyers, brokers, packing company managers, farmer's market managers and store owners who were not family members or close friends. In this network, interaction was infrequent, usually limited to meetings during harvest time and in few cases (*e.g.*, vegetable growers) before harvest, only when buyers organized these meetings. For 30 percent of the farmers, this network represented the most important connections from which they received marketing information.

Local buyers provided farmers with very important marketing information such as quality specifications, documentation requirements (*e.g.*, pesticide application sheets), and regional and global marketing trends, among other things. As expected from a weak network tie, this relationship with buyers was helping farmers gain some competitive advantage and increase their marketing information access. For example, some blueberry growers communicated with the supervisor or manager who received their products in the packing warehouse about quality specification for their fruits, payment terms, and information about production practices. They learned from this network about quality grading and marketing practices in the industry. For instance, as a result of the requirements of some of these packing companies, three farmers had decided to apply and obtain their good agricultural practices (GAP) certifications. Although the process of getting this certification was long and expensive, these farmers did not complain about what they were required to do, because they were already practicing most of the

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limited information and knowledge Hispanic farmers have about different forms of business collaborations and the need for more outreach and education in this area.

requirements in their farms in order to sell to their buyer. One farmer expressed her support for this type of certification, because it was making her access other markets too.

Farmers learned about marketing coordination with local buyers. Some local buyers were more open about sharing information concerning delivery times and product specifications from supermarkets or food service companies. In some cases, farmers grew specific products based on the requirements of these buyers. One farmer said he knew that he needed to deliver a specific size of vegetable that would fit standard boxes. In turn, other buyers would also take his product because he was providing the right sized vegetable to fit this standard box.

As result of this apparent open and coordinated relationship with local buyers, it was expected that farmers would work more closely, or develop formal agreements, with these buyers or, at least, coordinate more marketing activities together. However, none of the participants of this research had any form of formal or informal agreement with local buyers. The relationship was of power and compliance (*i.e.*, vertical) (Granovetter 2002). Farmers explained that local buyers would only share specific information that would be beneficial for their businesses or companies. A farmer explained that, with local buyers, “everything is very private” after farmers were told what it was required from them.

In this aspect, Hispanic farmers were not different from other small-scale farmers regarding the relatively distant and vertical relationship they had with members in this network. However, the main difference could be their concerns about developing more close relationships with these buyers. For example, three farmers were skeptical of signing contracts with local buyers. They thought that signing contracts with local buyers could be “dangerous.” These farmers were afraid that if they were not able to fulfill the contract, these buyers had the power to

take them to court. On the other hand, other farmers explained that even if they wanted to sign contracts or marketing agreements with local buyers, the lack of a close relationship with these companies made it impossible to talk to the manager and request an agreement.

Although seven farmers felt it was better to rely on verbal agreements with their buyers, based on a relationship of trust, reputation and mutual respect for each other. Other respondents discussed different issues they usually face when using verbal agreements when they try to sell their products to local buyers, which is similar to what other farmers who do not coordinate marketing activities with marketers' experience[47]. For example, five farmers noted that occasionally their fruits will be rejected or get lower grades, depending on who had received their fruit. Given the type of distant relationship they developed with these buyers, these farmers had no alternative but to accept whatever grade their fruits received. With vegetables, often local buyers were not sure about the standards they needed and their specifications were not clear. A farmer pointed out that her local buyer told her they wanted spicy jalapeño peppers, but when the buyer came to pick up the load, he said also wanted jalapeños with stripes. Thus, he rejected the load. This lack of clear expectations from buyers represented a serious risk for farmers.

The excessive reliance on local buyers, and the limited information they received from this network, prevented farmers from exploring other marketing opportunities. For example, farmers did not receive advice on marketing in other places when current markets were saturated, or potential partnerships with their companies that would help farmers increase their competitiveness and viability. Constant changes in connections also complicated relationships

[47] For example, Brown *et al.* (1992) presented a list of coordination issues African American farmers had with conventional buyers (Brown *et al*., 1992). Similarly, Buck *et al.* (1997) found that organic farmers with more resources would be able to coordinate more complicated and extensive supply chain distribution than farmers with fewer resources (Buck *et al*., 1997)

between local buyers and farmers. One farmer explained that previously, the local store he supplies to changed its manager, the deliveries were easy and fast, however, he did not have a good relationship with the new manager, and was encountering problems with deliveries and payments.

Outside buyer network

This network represents a weak network tie that Hispanic farmers have developed with buyers from markets, and store and restaurant managers in Chicago for the most part, but also in cities nearby their farms. This network also includes connections to farmers' groups, Extension agents, and other agents who were helpful providing marketing information. This network can be considered the closest to indirect connections Hispanic farmers have developed. Only four farmers mentioned having these types of connections, and two farmers cited this network as a main source of marketing information, which illustrates the difficulties Hispanic farmers have in bridging networks outside their local markets.

In terms of emotional closeness, farmers and outside buyers were very distant, but these ties, as in the local buyer network, were the result of relationships that extended for a long period of time. While communication with outside buyers was limited to before and during harvest time, or even less frequently, farmers would consult with these connections whenever they had an important marketing decision to make.

Like the local buyer network, besides sharing important marketing information – such as price and quality standards – this network was promoting competitive advantages for Hispanic farmers. The main difference between this and the local buyer network was the kind of

marketing coordination and support they received from it. For example, two farmers working with their contacts in Chicago would coordinate delivery of products, quality specifications, payment terms and other marketing activities. In addition, a farmer explained that he changed from selling exclusively to packers to selling different products to different markets, thanks to what he learned during interactions with these buyers. The other farmer explained that his decision to farm from the beginning was guided by what his connections demanded. Thus, he always had a market for the products he was growing. In general, these farmers would have a marketing plan that was useful to make decisions about their farm management.

The level of trust among participants was relatively high for a weak network. One of the farmers explained that when he started marketing his products, he decided to leave products with the store manager in Chicago as free promotional items; later, they negotiated the terms of payments and delivery times with this manager. After this agreement, he would leave the products and was assured of receiving his payments. As a result of this trusting relationship, when this farmer decided to increase his production capacity, he invited the store manager to visit his new farm to see what was being produced and give advice to the farmer.

Based on the responses, farmers seemed to have access to new marketing information in this type of network. A farmer mentioned that he really liked working with a wholesale buyer, even though he was not paid well, because of the ideas and information this buyer was willing to share with him. He said that this connection mentioned opportunities to sell in other states. He added that he would like to work with other farmers to have the volume and quality of products these buyers needed, but could not do it alone.

In addition to connections to markets outside their communities, some farmers were very active and well-respected among different groups within their communities. Though it was hard to establish whether they participated in community activities to increase their farm viability or simply because they were engaged citizens, their involvement with community, state and federal organizations helped them increase their connections and gain more marketing information from other sources.

Despite the importance of these connections for farmers, a very limited number of farmers were actually benefiting from using this weak network tie. Those who were using this network provided some evidence of how important ties outside local markets are for Hispanic farmers to access marketing information and to learn about opportunities to maintain their farm viability.

Summary and Discussion

Hispanic farmers in Michigan and around the country are categorized as limited resource and socially disadvantaged farmers. Limited access to marketing information is often cited as one of the many limitations they face in their communities and markets. To offset this barrier, different research in entrepreneurship and economic sociology suggests the use of social networks as an alternative. The results of this research suggest that Hispanic farmers who already have an extensive social network could use it as a feasible alternative to overcome marketing limitations. However, there some key issues they need to address to fully benefit from the rich network they have built in their communities and outside their markets.

Hispanic farmers maintain two important strong networks in Michigan: the family and the friend networks. The main marketing benefits obtained from the family network were learning about main markets in their communities and obtaining pricing information. Due to the emotional proximity in this network, information was generally shared quickly almost immediately among members. The friend, or "paisano," network was very useful in helping farmers establish their farms and find information about markets when they moved to Michigan. However, most of the information farmers gather today from their friend network is, in many cases, reduced to imitating marketing strategies that seem to work well for these friends.

From the interviews, it is possible to suggest that Hispanic farmers do not trust their family and friends when it comes to more coordinated efforts to improve access to marketing information. Social network theory suggests that strong ties are particularly good to share information rapidly. However, Hispanic farmers did not share important marketing information within these strong networks (they would only share some price information). This lack of trust represents a barrier to accomplishing collective marketing goals, and rather than cooperating, farmers compete for their already limited markets in Michigan. In the future, it is expected that farmers who are dedicated to increasing their farm incomes or even maintaining farm viability would likely join forces with other family members and friends, particularly to access information and support from federal, state and community-based organizations.

Hispanic farmers have built a relatively important local buyer network in their communities. From this network, they receive important marketing information, which is helping them learn about markets and increase their knowledge about industry practices. In a few cases farmers and buyers were able to coordinate marketing activities. However, the weak ties they

have developed are not always helping them with more marketing information and coordination that can significantly improve their competitive advantage. While the local buyer network was one of the most important networks for Hispanic farmers, the type of relationship vertical relationship developed in this network prevented farmers from exploring other alternatives to increasing their competitive advantage. Hispanic farmers still need support in establishing direct communications with more buyers in ways that could benefit both farmers and buyers, and coordinate more efficient marketing channels. It is possible that a new role for Extension or community-based organizations could be facilitating this kind of interaction, where agents could work as a 'bridge' to facilitate business communication.

Hispanic farmers struggle to develop weak ties outside their local markets and communities that can help them access new and non-overlapping information. The number of weak ties outside their local market proved to be benefiting those farmers who had access to this type of network. Specifically, farmers who had some business connections outside their communities were able to receive and observe more marketing information, and were even willing to collaborate with other farmers because there was more demand than they were able to fulfill with their limited production capacity. Farmers and the agents (*e.g.*, Extension and NGO agents) working with them should find opportunities to develop more ties outside their communities, as well as learn better marketing practices in the industry.

Hispanic farmers face numerous challenges in using social connections for marketing purposes, including a lack of understanding of its benefits. It was observed during this research that farmers lacked important information about what collaboration with other farmers entailed, and the various forms of collaborative efforts beyond traditional cooperatives. Thus, it is

important that besides promoting more connections among farmers and marketers, farmers also understand the benefits of social networking and how they could maximize the opportunities that these connections represent.

Identifying various social networks can be useful for Extension agents to develop more targeted and efficient communication with Hispanic farmers, given the difficulty in accessing these farmers. For example, in the family and friend networks, identifying the leaders of these groups can facilitate and speed up the flow of information to other members. Considering that many farmers imitate the marketing strategy of other farmers, any activity that shows improvements will be beneficial for these farmers. However, it is also important to consider that just promoting weak ties connections would not always represent the best alternative. As mentioned before, lack of trust among farmers in weak ties implies that some farmers would not share the most important information.

In local buyer networks, Hispanic farmers value and trust the information they received from these connections. In addition, the marketing information is relevant and helps farmers learn about market requirements. It is increasingly important to work with company leaders and promote the benefits of more collaborative efforts with these farmers. This is an area where Extension and community-based organizers have a competitive edge that can help Hispanic farmers.

Business partnerships, like a values-based value chain approach, or strategic collaboration with suppliers, can increase market access and viability of farms. However, Hispanic farmers need support from more experienced agents to assess the benefits and costs of networking with other farmers and companies before engaging in these kinds of commitments.

Exploring the benefits and costs of this type of strategy with Hispanic farmers can yield important developments towards a more connected strategy to market access in the future.

Social networks can be an important tool for Hispanic farmers to increase their marketing knowledge and access to information. However, they require some specific institutional and farmer's support to actually work effectively. First, many efforts to increase social networking need support from institutions such as Extension offices and NGOs. Besides issues of budget constraints and restructuring affecting the system of Extension, it primary focus has not been small-scale minority farmers such as Hispanic farmers. Similarly, most NGOs have not made explicit in their objectives to work with minority and socially disadvantaged farmers. This situation creates barriers to effectively use these institutions to build social networks that could benefit Hispanic farmer's competitive advantage. For both, Extension and NGOs, it is important to introduce targeted and explicit objectives to include Hispanic farmers in their business networking programs. By introducing this kind of objective, they are more likely to understand the specific limitation Hispanic farmers face and address this issue more effectively.

Farmer's support is the most important factor that can make social networking work effectively. However, during this research, 14 farmers said that, in general, they would not talk about marketing with other people because they did not believe other farmers would know more than they already knew about markets. A farmer said "So what is the point of changing if you are already used to the system?" As Atterton found with rural entrepreneurs in Scotland (Atterton 2007), this kind of reaction indicates how some farmers tend to be closed to new marketing information and even working with other farmers. This barrier is very important to acknowledge and perhaps it is the most difficult to overcome.

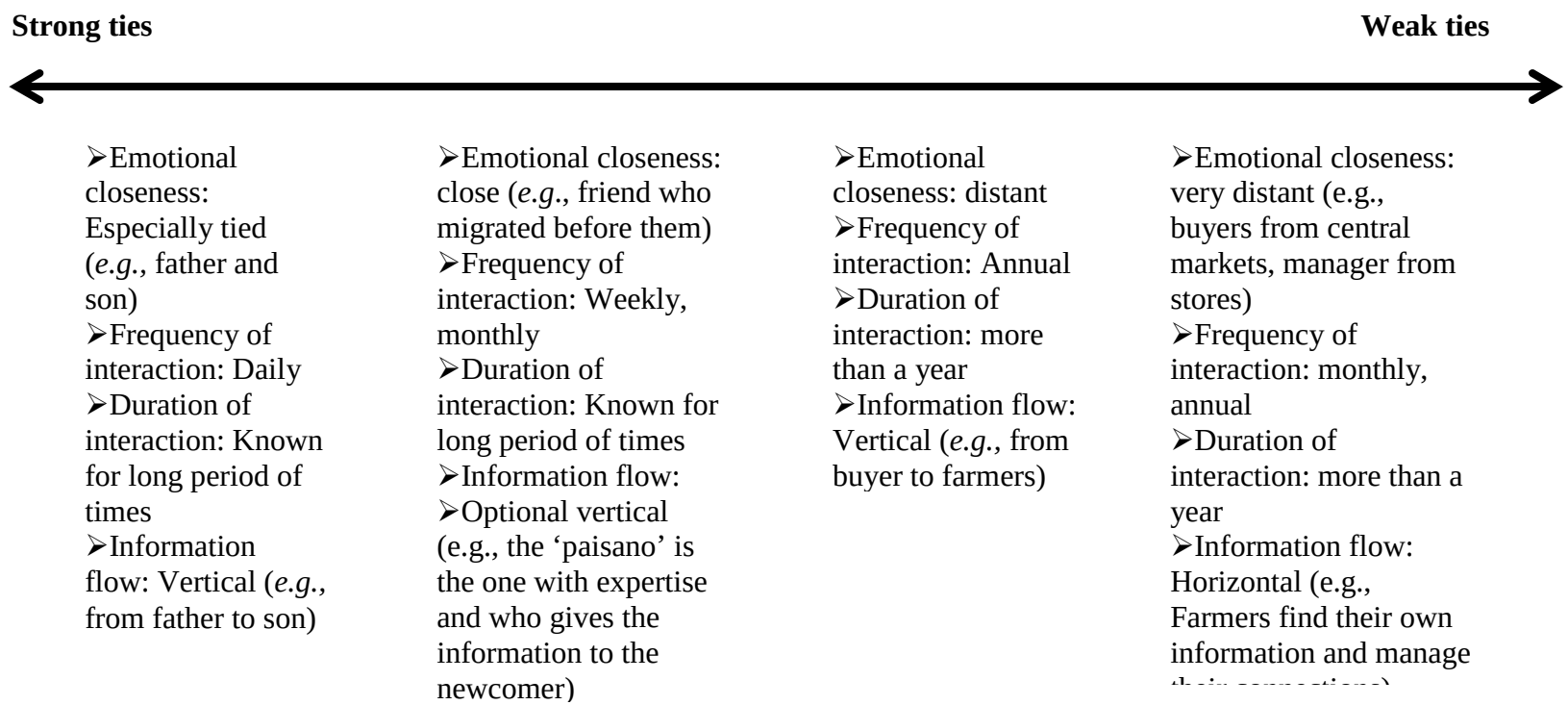

Figure 3. Strength of Relationships based on Burt (1997)

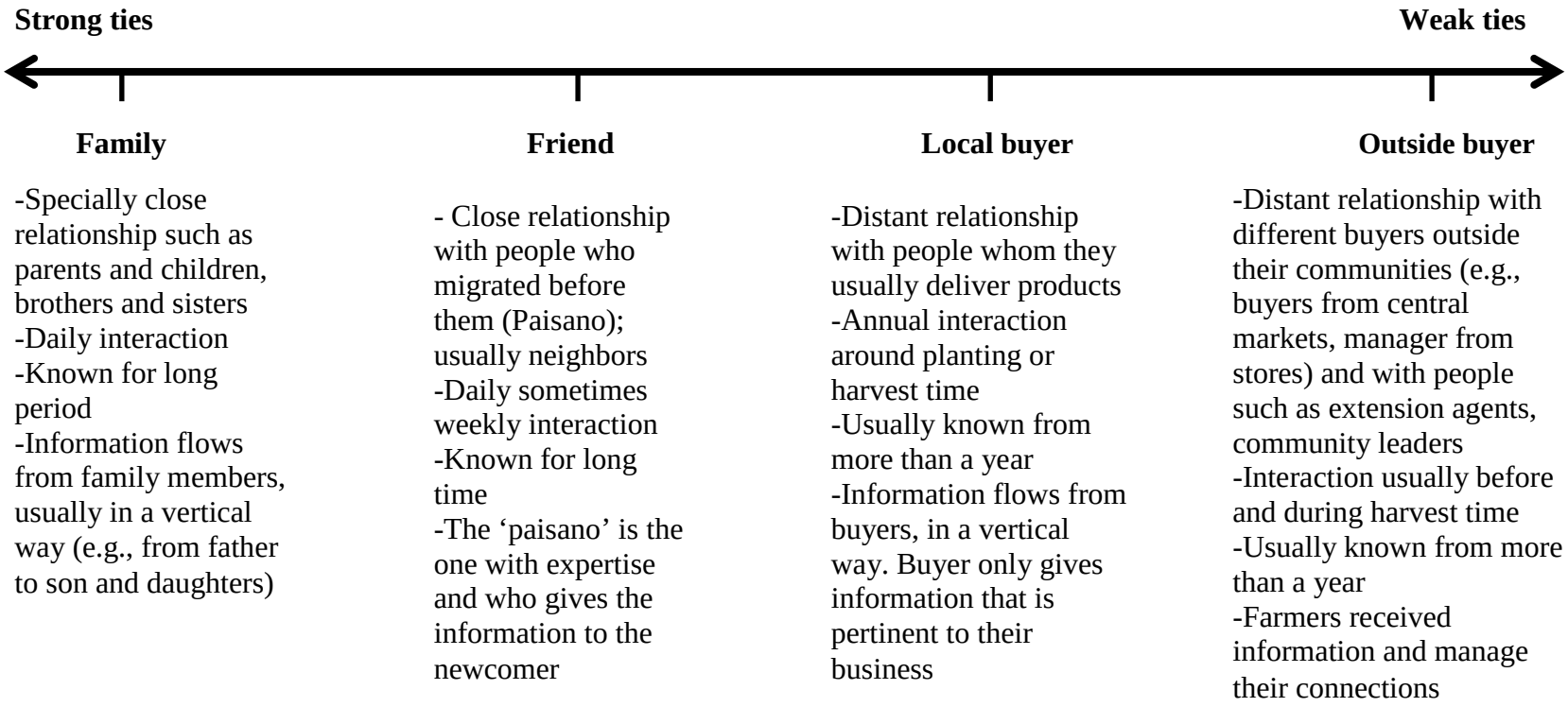

Figure 4. Strength of Relationships among Hispanic Farmers

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CHAPTER 5

SUMMARY AND CONCLUSION

Hispanic farmers in Michigan continue to struggle with low farm viability and marginalization. They are categorized as limited resource, due to the small-scale of production and very low farm income. Their low level of education coupled with limited access to resources, contributes to their economic marginalization. Despite the barriers Hispanic farmers face in achieving production success, there are factors that can contribute to improve their farm viability.

This dissertation explores three contributing factors to improve farm viability. First, it explores access to, and participation in, government and NGO programs designed to support agriculture, marketing and farm management. Second, it analyzes marketing experience, skills and future planning, which are important resources to access markets. Finally, it explores farmers' use of social and business connections to access relevant marketing information for improved farm management.

The results indicate that Hispanic farmers in Michigan face unique challenges in order to assimilate and participate in agriculture and farming programs that are designed to support farmers and improve their farm viability. In this research, almost 60 percent of participants stated their need for any type of assistance. Fifty-four percent indicated their need for financial assistance. Farmers also needed production and marketing support, but the study showed that more than 70 percent of Hispanic farmers do not participate in any federal or state programs, 48

percent was not aware of NGO groups working with Hispanic farmers, and 54 percent did not participate of any local farmers groups.

Regarding the level of farmers' marketing experience, skills and future planning, the results suggest that, while over the years Hispanic farmers have gained important marketing experience and skills to access current markets, they continue to struggle and would benefit from additional support in accessing new markets and discontinuing their reliance on single market strategies. Hispanic farmers in this study have been farming in Michigan for less than 15 years; 40 percent have been farming for less than 5 years. Hispanic farmers who specialized in blueberry production rely heavily on market specialization, selling only to fruit packers. Despite the importance of this market for farmers, farmers and packers do not coordinate marketing activities. Hispanic farmers have limited knowledge of available marketing options. Only 22 percent of farmers used some form of direct sales or farmer's markets. None of the farmers knew about community supported agriculture. In addition, Hispanic farmers do not have experience selling to mainstream retail and food service channels, which can affect their future participation in these markets. On the other hand, market diversification has helped some farmers develop useful skills. This strategy was used by 32 percent of Hispanic farmers. Farmers who diversified markets were also more likely to have approached a retail or food service to sell their products. Finally, when asked about their expectations for the future, most Hispanic farmers have not clearly defined a marketing objective that would guide their efforts to improve farm viability. Though 24 percent cited increasing their production as a future goal, none of these farmers had developed a specific marketing plan for the future.

Finally, the third essay illustrates the importance of developing social and business connections as a means for Hispanic farmers to access more marketing information. Hispanic

farmers who already have an extensive social network could use it as a method to overcome marketing limitations. However, limited connections outside their local markets and lack of trust among farmers are issues that need to be addressed to fully benefit from this rich social network. Hispanic farmers have built a relatively important and extensive local buyer network in their communities. From this network, they receive necessary marketing information that increases their knowledge about markets and industry practices. In some cases farmers and buyers were able to coordinate marketing activities. However, Hispanic farmers struggle to develop weak ties outside their local markets and communities that can build their knowledge and information base. Specifically, farmers who had some business connections outside their communities were receiving more marketing information and were more willing to collaborate with other farmers because there was production demand that they were not able to fulfill.

In order to deal with current barriers to improve their farm viability, Hispanic farmers need innovative outreach and extension support that government and NGO groups can, and in some cases, already provide. Based on the results in this dissertation, some of these key initiatives include:

a) Targeted training sessions with relatively small groups of farmers. These sessions should be short presentations in combination with other training materials, such as pictures, or short videos. Training days in the field are also recommended, because they expose farmers to hands-on activities and have shown success, as in the case of IPM training. An important consideration element in involving more Hispanic farmers in education and training is to schedule training sessions, farm meetings or field days at times other than regular business hours, so that farmers who work other jobs during those times can participate.

b) Bilingual sessions could help farmers get more acquainted with farm management jargon and specific information, and also increase farmers' participation in different programs. Spanish-only sessions are not recommended, even when most Hispanic farmers have low English proficiency, because it can further marginalize Hispanic farmers from other farmers groups. In addition, most business and marketing transactions are conducted in English, and farmers need to be more confident to establish these types of relationships that are so important for their farm business.

d) Leadership and support from government and NGOs to identify new markets. Despite being small-scale producers, the results of this research indicate that those farmers who diversify market channels are more prepared to reach out to other market segments and generally have more skills to help them access these markets. However, limited market exposure outside their local communities represents barriers for these farmers.

e) Careful analysis and planning before investing in new farming endeavors. In this and previous research, results indicate that Hispanic farmers generally decide to invest in farming based on what other family or friends have done before them. A careful analysis and marketing plan can help Hispanic farmers make more informed decisions. At the same time it can help farmers develop business plans which are useful to seek financial support.

f) More support in coordinating with local buyers and outside business networks. Local buyers and business connections provide important market information. In many cases, power relationships between buyers and farmers limit the possibilities to explore better business coordination or win-win models that could farmers and marketers alike. Support in building outside networks is important for Hispanic farmers, who generally deal with local markets only, and are less likely to learn new and non-redundant marketing information.

The results of this research have important policy implications for farmers, extension agents, university investigators and others currently working with Hispanic farmers. The policy implications suggested here are intended to increase the awareness of and support for Hispanic farmers in Michigan, while increasing their farm competitive advantage.

Need for a Hispanic farmer's research agenda: MSU researchers and educators needs to take the lead and develop a research agenda that specifically targets minority and limited-resource farmers, such as Hispanic farmers in Michigan. As a leading land grant institution with prominent research institutes capable of addressing issues affecting Hispanic farmers, MSU has the capacity and the opportunity to lead this type of research effort. While there have been some studies addressing Hispanic farmers' conditions in Michigan and the Midwest, most information is reduced to cases studies and isolated research. There is need for a more comprehensive study of Hispanic farmers, their issues and potential opportunities. The leadership of scientists and educators is necessary to secure research funding currently available through various USDA NIFA programs. More research can only help Hispanic farmers and contribute to improving their farm viability.

Extension service focus on Hispanic farmers: Extension services need to incorporate programs that address minority and limited-resource farmers' challenges. Given the current restructuring of MSUE, it is important to seriously consider and include minority and limited-resource farmers, whose numbers are growing statewide, and who could eventually become important contributors of agricultural outputs and revenues. The well-being of these farmers will only benefit the agriculture industry as a whole. In addition, participants cited Extension programs as important sources for production and management information. While isolated

efforts to help Hispanic farmers are currently led by different MSUE agents, these efforts remain isolated and do not involve most Hispanic farmers in Michigan.

Coordination among institutions providing support for Hispanic farmers: coordinated outreach programs are fundamental to effectively reach to Hispanic farmers. For example, MDA and MSUE already coordinate some training for pesticide certification and production management (Santos and Castro-Escobar forthcoming). MSUE and MIFFS regularly coordinate information and training sessions; however, coordination of these efforts between other institutions has been difficult. Particularly in these times of limited funding, cost-efficient information delivery is important to reach farmers. Careful consideration of issues affecting Hispanic farmers can help increase participation. Listening sessions or interviews with key informants can provide important feedback in the development of programs for Hispanic farmers.

Constant awareness of diversity and cultural differences when working with Hispanic farmers: The success of any program that serves Hispanic farmer is centered on the awareness of cultural differences. While Hispanic farmers need to integrate with other farm groups, it is also important to remember that limited awareness of issues affecting minority groups has been the main reason behind their being disadvantaged. Extension and community-based programs need to specify in their objectives social targets to measure inclusion of Hispanic farmers, particularly those farmers who need it most. It is also important to include community leaders training and mentoring programs, which have been successfully used by other small-scale farmers, and could potentially be a method to reach to other Hispanic farmers. Though farmers were reluctant to work closely with other farmers in some cases, others had started an association and a cooperative, because they believe these organizations could increase the level of necessary

marketing information. These efforts support and encourage Hispanic farmers and help give them more of a voice.

This dissertation has some important limitations worth mentioning. First, due to the methodology used in this research, this case study provides limited answers. Results should be interpreted in the context of this study alone. However, the finding in this exploratory research offer some important guidelines to help assess the opportunities and barriers Hispanic farmers and those working with them need to consider to increase farm viability.

While this study covers a significant number of farmers, lack of reliable information to locate Hispanic farmers represented a barrier to increase the number of study participants. In Michigan, there are numerous barriers to identifying and working with Hispanic farmers. In addition, limited funding for this research prevented the use of more traditional and cost-effective methods to reach them, though traditional methods do not work well with Hispanic farmers. In many cases, limited time to conduct the surveys and in-depth interviews imply that more detailed information was sacrificed in order to work with more farmers. In addition, the farmers' own time limitations did not allow for more in-depth interviews.

Other farmers and key stakeholders were not included in this research. This situation limited the number of comparisons that could have been useful to understand what barriers Hispanic farmers face, and what barriers are structural and faced by all farmers. In addition, business and market managers were not included in this research, which could have contributed to a more holistic analysis of market issues. While conversations with other stakeholders (*e.g.,* MSUE, NGO and USDA) were conducted as a preliminary assessment for this dissertation, their views and comments were not included in this dissertation.

Work with Hispanic farmers is increasing, and there are opportunities for future investigation, some of which can be summarized as follows:

a) Cost-effectiveness of participatory-action research and programs designed to collect information, while encouraging farmers to learn more about their markets

b) Assessment of the best outreach programs that address Hispanic farmers needs and opportunities

c) Development of educational and technical support considering Hispanic farmers limitations and needs

d) Comprehensive study of Hispanic farmer's challenges and opportunities in Michigan and the Midwest

e) Survey of Hispanic and non-Hispanic farmers to compare opportunities and barriers in Michigan and the Midwest

f) Assessment of business opportunities in local and regional markets

g) Assessment of adoption of environmental and sustainable practices

Appendix

Appendix A. Survey Questionnaire

Farm Characteristics

How would you like to answer the questions?

Spanish ○

English ○

In which county do you farm?

_____

Which of the following describes your farm operation? (Please check only one)

Family farm ○

Corporation ○

Other (please explain) ○ _____

How many acres do you

Own _____

Rent _____

How many acres do you cultivate?

_____

Do you farm? (please check only one)

Full-time ○

Part-time ○

Other (please explain) ○ _____

Approximately, what percentage of your total income comes from farming? (please check only one)

1 to 25% ○

26% to 50% ○

51% to 75% ○

76% to 100% ○

Do you hire labor?

Yes ○
No ○

Number of hired managers and/or workers

_____

Who performs the main daily functions of the farm? (Please check only one)

Myself ○
My spouse ○
Other (please explain) ○ _____

What do you raise on your farm? (check all that apply)

Field crops ○
Tree fruits ○
Fruits ○
Vegetables ○
Livestock ○
Other (please list) ○ _____

Marketing

What are your main markets in terms of sales for your products? Please rank your most important markets

Farm stand ☐
CSA ☐
Supermarket chain ☐
Restaurant ☐
Farmer's market ☐
Wholesale/broker ☐
School/institution ☐
Other (please list) ☐ _____

What percentage of your sales go to the first three markets you mention above? For example 75% to first market, 25% to second market

1st most important market _____

2nd most important market _____

3rd most important market _____

If you <u>are not</u> currently selling to a supermarket, restaurant, or wholesaler, have you ever tried?

What are your biggest challenges or hurdles when you try to sell your products? How do you overcome them?

The following questions are about your marketing experience.
Do you consider each of the following to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?

<u>Extent to which situation is a constraint to marketing</u>

	Serious		Moderate		Not a constraint
	1	2	3	4	5
Find new markets	○	○	○	○	○
Find the price for your products	○	○	○	○	○
Find information about quality standards	○	○	○	○	○
Access existing markets with the products you currently grow	○	○	○	○	○
Trust people who buy products from you	○	○	○	○	○
For buyers/customers to trust you and your products	○	○	○	○	○
Get payments	○	○	○	○	○
Deal with excess supply of	○	○	○	○	○

products in your markets					
Meet new buyers	○	○	○	○	○
Negotiate agreements/contracts	○	○	○	○	○

Where do you see you and your farm 5 years from today?

The following questions are about your connections to perform marketing tasks. Please list the most important people *you have asked* for information about markets, or people whom you usually consult when you have a marketing question

1 _____

2 _____

3 _____

How frequently have you interacted with each person?

	Daily	Weekly	Monthly	Yearly
Person 1	○	○	○	○
Person 2	○	○	○	○
Person 3	○	○	○	○

Where do you know the people mentioned before from? (for example, extension office, supermarket buyers)

Person 1 _____

Person 2 _____

Person 3 _____

Please list the most important people *who have asked* you for information about markets, or people who usually consult YOU when they have a marketing question

1 _____

2 _____

3 _____

How frequently have you interacted with each person?

	Daily	Weekly	Monthly	Yearly
Person 1	○	○	○	○
Person 2	○	○	○	○

Person 3 ○ ○ ○ ○

Where do you know the people mentioned before from? (for example, extension office, supermarket buyers)

Person 1 _____

Person 2 _____

Person 3 _____

Assistance

I would like to know more about the types of assistance you are interested in for your farm and the types of farm programs you have participated in

Do you need assistance on your farm that an agriculture agency or organization may be able to help with?

Yes ○

No ○

What kind of assistance do you need?

Have you ever received assistance from any organization?

Yes ○

No ○

Have you ever been denied any assistance?

Yes ○

No ○

Do you participate in any federal or state programs?

Yes ○

No ○

Have you heard of any non-government group, association or cooperative that works with farmers in Michigan?

Yes ○

No ○

Do you participate in any group, association or cooperative?

Yes ○
No ○

Do you need financial assistance?

Yes ○
No ○

Farmer Characteristics

Approximately, how many years have you been farming? (please check only one)

○	○	○	○
1 to 5 years	6 to 15 years	16 to 30 years	Over 30 years

Where are you originally from?

What is your age range?

○	○	○
35 or younger	36 - 65	66 or older

What is your gender?

male ○
Female ○

What is the highest level of education completed?

Some high school ○
High school ○
Some college ○
Bachelor's degree ○
Some graduate school ○
Graduate school ○
Other ○ _____

Appendix B. Dissertation Coding Scheme

Table 25. Codes used for Assistance and Support from Federal, State and NGO groups

Code	Sub-code	Characteristics	Example
Need		Farmers' opinions about their need for assistance in their farms	All answers to the question: What kind of assistance do you need?
	Financial	Farmers who answer needing financial support	"I need help. For example, I need financial help"
	Marketing	Farmers who needed marketing support	"He needs information about where to sell, some requirements what exactly he need to do to sell".
	Production	Farmers who needed production support	"So we can learn about production, about how to set a trap, trim, how do we work with fertilizers"
	Problems	Issues farmers suggested as related to assistance available for farmers	"The only thing is that there is not the needed help that we need to in our farms"
Financial		Opinions about need for financial assistance	All answers to the question: Do you need financial assistance?
	Lack	Issues concerning lack of access or knowledge about access to financial assistance	"We don't know where to look for financial assistance. That would be a good thing to get trained on that kind of things. We need a guide"

Table 25. cont'd

Code	Sub-code	Characteristics	Example
	Institutions	Institutions cited by farmers as their source for financial assistance	
Received		Farmer's opinions about the assistance they have or have not received	All the answers to the question: Have you ever received any assistance?
	Have not tried	Farmers who have not tried to look for assistance and the reasons they provide to explain it	"He has never asked for any assistance from anyone. He doesn't even know who could help him"
	Institutions	Institutions which have provided some assistance to farmers	
Denied		Opinions about not accessing assistance	All the answers to the question: Have you ever been denied any assistance?
	Have not tried	Farmers who have not been denied assistance because they have never looked for assistance	"We haven't looked for help, so we can't be denied".
	Reasons	Farmers perceptions about why they were denied assistance	"I have never met anyone who would tell me here I am, I am a representative from the government and I am here to help you, I have never met that kind of person".

Table 25. cont'd

Code	Sub-code	Characteristics	Example
Participation		Farmer's opinions about participating in programs to help improve the viability of their farms	All answers to the question: Do you participate in any federal, state or other program?
	Federal	Farmers participating in federal programs	
	State	Farmers participating in State sponsored programs	
	Farmer's group	Farmers participating or knowing about farmer's associations or groups	
	NGO program	Farmers participating in NGO programs	

Table 26. Codes used for Marketing Experience, Skills and Expectations for the Future

Code	Sub-code	Characteristics	Answer Example
Main markets		Farmer's description of markets were they sell their products	Answer to the question: What are your main markets in terms of sales for your products?
	Location	Markets they are selling and their location with respect to the farm	"100 percent of their production goes to processors in the area"

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
Sales to Stores, Wholesale or Food service (SWFS)		Farmers opinions about selling or not using these channels	Answer to the question: If you are not currently selling to a supermarket, restaurant, or wholesaler, have you ever tried?
	Opportunities	Farmers who have tried to sell to SWFS and what they have experienced	"she asked once in Meijer, but Meijer had its own broker and you need to contact this broker to sell"
	Barriers	Farmers who have not tried to sell and their reasons why they have not	"He has some idea of what they wanted. He once heard that Walmart was looking into buying products from the area, but he has never spoken to anyone from the store"
Challenges		Farmer's opinion about what represent difficulties when selling their products	Answer to the question: What are your biggest challenges or hurdles when you try to sell your products? How do you overcome them?

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
Expectations		Farmer's goals for the future of their farms and different alternatives to achieve these goals	Answer to the question: where do you see you and your farm 5 years from today?
	Growth	Positive answers about prospective to continue farming and growing	"I will like to improve. My objective is to make my farm 100% productive maybe later add more".
	Equal	Farmers who were not thinking about changing their farming management or production and remain as they were today	In five years he seems himself the same. He doesn't think he would grow more, maybe he would have more volume because the bushes he has now are developing and in 5 years they will be in full production".
	Quit	Farmers who would quit farming unless some market conditions improved	"In my case, I bought my land as a wooden land. If the market is good I will plant more. But if the market goes this bad I am not going to continue".

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
New Markets		Opinions about finding new markets for their products	Answer to the question: Do you consider finding new markets for your products to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
	Knowledge	It includes farmers who mentioned or knew markets where they could sell their products	"During the blueberry season there are several places, it's not just one. All of them have the same price. So if you go with one or the other there is no difference. There are several places to take"
	Not looking	It includes farmers who were not looking for new markets	"He thinks it is not a constraint, but he hasn't tried to find new markets".
Price information		Opinions about difficulty to find price information before they take products to markets	Answer to the question: Do you consider finding price information for your products to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
	Discovery	How farmers find about prices before they take their products to markets	"It is not difficult to know because you know people who can tell you about prices. People tell other people. You only see on the blackboard and everybody can tell you too. Prices are all similar. Sometimes the difference is 10 c or 5c from one place to the other."
	Issues	Farmer's opinions about what they see as an issue with price information	"I think this is a problem. We should know or at least have access to the prices that these people manage. We only see the prices they decide to pay us, we don't know any other price".
Quality standards		Farmer's opinions about quality requirements to sell their products	Answer to the question: Do you consider finding information about quality standards for your products to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
Access		Opinions about difficulty to access existing markets with products they already grow	Answer to the question: Do you consider access to existing markets with products you currently grow to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
Trust buyers		Farmer's opinions about people who buy their products and their business relationships with these buyers	Answer to the question: Do you consider trust people who buy your products to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
Trusted		Farmer's opinions about what other people think of their products or their reputation in the market.	Answer to the question: Do you consider for buyers/customers to trust you and your products to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
	Length	Farmers who answered that people trusted them because of the length of their relationship	"Trust it is not difficult to gain trust because people already know them and they have been in certain farmers markets for a long time".
	Relationships	Farmers who expressed that the type of relationship developed influence trusted market exchanges	"Sometimes the same people from the packing facility would tell him whether he needs to fertilize more the fruit to make it better, and when they see his fruits they would accept it".
	Products	Farmers who mentioned trust is built through product quality	"His customers know he will deliver good quality eggs. They also know he is not 'running after money'"
Payments		Opinions about the speed to get payments after they deliver they products	Answer to the question: Do you consider get payments to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
	Exceptions	Situations in which farmers found issues with getting their payments on time	"They always had some issues paying him on time. Particularly this year".

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
Excess supply		Opinions about volume delivered to markets that can affect their chances to sell products	Answer to the question: Do you consider deal with excess supply of products in your markets to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
	Lack of strategy	Farmers who did not know what to do when facing this kind of situation	"They never had any problems with oversupply of products. But if they had any issue, they would just leave the fruit on the bush and not pick them"
New Buyers		Opinions about meeting new buyers whom they can trust and sell their products	Answer to the question: Do you consider meet new buyers to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
	Concerns	Farmer's negative view about new buyers	"It is easy to meet people, he just don't trust new buyers because of his bad experience".
	Issues	Farmer's lack of business connections to allow them to meet new buyers	"He thinks this is going to be difficult because he doesn't know many people".

Table 26. Cont'd

Code	Sub-code	Characteristics	Answer Example
Negotiate		Opinions about having agreements or contracts to sell their products	Answer to the question: Do you consider negotiate agreements or contracts to be a serious constraint, moderate constraint, small constraint or not a constraint to marketing your products?
	Relationships	Description of the type of relationship they have developed with their buyers	"We need to be registered, they don't ask much to be registered, and it doesn't mean we have to sell everything to them"
	Perceptions	Farmer's negative perceptions about contracts with buyers or their lack of knowledge about contracts	"It is difficult to negotiate agreements with buyers. He doesn't want to sign a contract with a buyer because it is dangerous".

Table 27. Codes used for Use of Social Networks to Access Marketing Information

Code	Sub-code	Characteristics	Answer Example
Communicate		Farmer's answers about the people they would contact with questions about marketing	Answer to the question: Please list the most important people you have asked for information about markets, or people whom you usually consult when you have a marketing question.
Advice		People who would likely come to farmers and ask for marketing advice	Please list the most important people who have asked you for information about markets, or people who usually consult YOU when they have a marketing question
Family		References to family members and the type of marketing support they provide	"Three families all related said that their brother was the marketer, he had the connections and he knew about where to sell their stuff. They trusted this brother to sell their products"
	Farm management	Division of labor among family members	"she would consult with her mum before making any decision"

Table 27. Cont'd

Code	Sub-code	Characteristics	Answer Example
Local Buyer		References to local buyers who are helpful source of marketing information	"He only talks to the buyer".
Outside		Reference to people or buyers outside their communities who are good sources for marketing information	"Usually he calls them before the harvest begins and the talk about markets maybe once a year or so. He knows them from the market in Chicago"
Paisano		Reference to friends or people from their country or region of origin who provide marketing information	"He talks to Mr. M, they help each other. Whenever he has any doubt he asks him where he takes his fruits, whenever he has a question about production or marketing".
No Network		People who stated not connecting with anyone	"He doesn't really talk to anyone, he doesn't speak to any other person about his farm or marketing"