REVISTA
INTERDISCIPLINAR DE
DESENVOLVIMENTO SUSTENTÁVEL
ISSN 3086-7401

RIDES

DIVERSIFICATION OR SPECIALIZATION? INTENTIONS TO CHANGE AMONG FAMILY FARMERS IN WESTERN PARANÁ NO OESTE DO PARANÁ[i]

DIVERSIFICAÇÃO OU ESPECIALIZAÇÃO? INTENÇÕES DE MUDANÇA DOS AGRICULTORES FAMILIARES

Tiago Fernando Hansel[1] Geysler Rogis Flor Bertolini[2] Ivano Ribeiro[3] Rodrigo Fernandes da Silva[4] Samoel Nicolau Hanel[5]
Universidade Estadual do Oeste do Paraná, Marechal Cândido Rondon, Paraná, Brasil
E-mails: tiago.hansel@unioeste.br[1]; geysler.bertolini@unioeste.br[2]; ivano.ribeiro@unioeste.br[3], rodrigo.silva25@unioeste.br[4], samoel.hanel@unioeste.br[5]

How to cite: HANSEL, Tiago Fernando; BERTOLINI, Geysler Rogis Flor; RIBEIRO, Ivano; SILVA, Rodrigo Fernandes da; HANEL, Samoel Nicolau. DIVERSIFICAÇÃO OU ESPECIALIZAÇÃO? INTENÇÕES DE MUDANÇA DOS AGRICULTORES FAMILIARES NO OESTE DO PARANÁ. **Revista Interdisciplinar de Desenvolvimento Sustentável**, [S. l.], [s.d.]. DOI: 10.48075/q221sq05. Disponível em: https://e-revista.unioeste.br/index.php/rides/article/view/38261. Acesso em: 24 ago. 2026.

Abstract: The choice between diversification and specialization represents an important decision for family farming, as it involves different forms of production organization, resource use, and income generation. This study aimed to analyze family farmers' intentions to modify their production systems, considering the transition between diversification and specialization. This is an applied, exploratory, and qualitative study conducted with 40 family farmers from 20 municipalities within the area covered by the Toledo Regional Office of the Paraná Rural Development Institute (IDR-Paraná). Data were collected through semi-structured interviews and analyzed using MAXQDA software, based on the Theory of Planned Behavior. The results indicated a low manifestation of intention to change. Among farmers with diversified systems, no significant intention to move toward specialized systems was identified, whereas some farmers with specialized systems expressed an intention to diversify their production. The findings indicate asymmetric behavior between the groups and highlight the importance of considering behavioral factors in understanding production-related decisions.

Keywords: Theory of Planned Behavior. Decision-making. Production systems. Agricultural strategies. Rural sustainability.

Resumo: A escolha entre diversificação e especialização constitui uma decisão relevante para a agricultura familiar, pois envolve diferentes formas de organização da produção, utilização de recursos e geração de renda. Este estudo teve como objetivo analisar as intenções de agricultores familiares de modificar seus sistemas produtivos, considerando a transição entre diversificação e especialização. Trata-se de uma pesquisa aplicada, exploratória e qualitativa, realizada com 40 agricultores familiares de 20 municípios da área de abrangência da Regional de Toledo do Instituto de Desenvolvimento Rural do Paraná (IDR-Paraná). Os dados foram obtidos por meio de entrevistas semiestruturadas e analisados com auxílio do software MAXQDA, tendo como referência a Teoria do Comportamento Planejado. Os resultados indicaram baixa manifestação de intenção de mudança. Entre os agricultores diversificados, não foi identificada intenção significativa de migração para sistemas especializados, enquanto entre os agricultores especializados foi observada alguma manifestação favorável à diversificação. Os achados indicam comportamento assimétrico entre os grupos e evidenciam a importância de considerar fatores comportamentais na compreensão das decisões produtivas.

Palavras-chave: Teoria do Comportamento Planejado. Tomada de decisão. Sistemas produtivos. Estratégias agrícolas. Sustentabilidade rural.

Esta obra está licenciada com uma Licença Creative Commons Atribuição-NãoComercial-CompartilhaIgual 4.0 Internacional, o que permite compartilhar, copiar, distribuir, exibir, reproduzir, a totalidade ou partes desde que não tenha objetivo comercial e sejam citados os autores e a fonte.

INTRODUCTION

Family farming holds a relevant position in the socioeconomic organization of Brazil's rural areas, performing functions related to food production, income generation, and the social reproduction of rural families. In the context of family farming, decisions regarding production systems are particularly important, as they involve economic resources, labor availability, accumulated knowledge, environmental conditions, family relationships, and prospects for the continuity of agricultural activities.

Among the production strategies adopted by family farmers, diversification and specialization stand out. Diversification is characterized by the presence of different productive activities on the farm and may contribute to the distribution of production and economic risks and to income generation through different sources. On the other hand, specialization involves a greater concentration of productive resources in a particular activity or a limited set of activities and may provide gains related to scale, technical expertise, and the more specific use of available resources (Perondi; Schneider, 2011; Schneider, 2010; Hansson; Ferguson, 2011).

The choice between these strategies, however, does not depend exclusively on economic or productive aspects. Family farmers' decision-making takes place in a context in which individual, family, social, cultural, institutional, and farm-related factors may influence the alternatives considered and the decisions actually made. Thus, understanding production choices requires considering not only the objective characteristics of production systems but also the perceptions and intentions of the individuals involved in the decision-making process (Simon, 1963).

In this regard, understanding not only the behavior actually performed but also the intention to perform a given behavior allows for a broader analysis of decision-making processes. The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), is an approach used to understand behavioral intention based on three main constructs: attitude, subjective norm, and perceived behavioral control. Attitude refers to the individual's favorable or unfavorable evaluation of the behavior; subjective norm is related to the perception of the approval or disapproval of people or groups considered relevant; and perceived behavioral control corresponds to the individual's perception of the ease or difficulty of performing a given behavior (Ajzen, 1991).

The application of this perspective to family farming has the potential to contribute to the understanding of decisions related to the transformation of production systems. Previous studies have used the Theory of Planned Behavior to investigate different behaviors and decisions among farmers, including issues related to the adoption of agri-environmental practices, dairy production, and production diversification (Schroeder; Chaplin; Isselstein, 2015; Senger, 2016; Senger; Borges; Machado, 2017; Rosa, 2018; Daxini *et al*., 2019). However, the studies identified focus on specific behaviors or productive activities. In this regard, a gap remains in understanding the behavioral intentions of family farmers when faced with the possibility of shifting between diversified and specialized systems, considering both the transition from diversification to specialization and the reverse movement.

This gap is particularly relevant because the absence of an intention to change also provides information about the dynamics of production systems. However, the absence of an intention to change should not necessarily be interpreted as an explicit intention to remain in the current system, as it may be related to farmers' evaluations of the system currently adopted, perceived social and institutional influences, or the conditions and limitations associated with a potential productive transformation. Thus, investigating the intention to shift from a diversified system to a specialized one, or vice versa, makes it possible to understand not only the willingness to change but also the direction of such a potential change.

Given this context, the research question guiding this study is: What is the intention of family farmers to modify their production systems by shifting from diversification to specialization or from specialization to diversification?

This investigation is scientifically relevant because it brings the discussion of production strategies closer to the behavioral approach, contributing to an understanding of the factors related to family farmers' intentions to change. The study also contributes to the discussion of production diversification and specialization by simultaneously considering farmers who adopt diversified systems and farmers who operate specialized systems, analyzing the possible directions of transformation between these production configurations.

Given this context, the objective of this study is to analyze family farmers' intentions to modify their production systems, considering transitions between diversification and specialization. Specifically, it seeks to identify the intention of farmers with diversified production to shift to specialized systems; identify the intention of farmers with specialized production to shift to diversified systems; and compare the intentions to change observed between the two groups of family farmers.

THEORETICAL FRAMEWORK

Family Farming and Production Strategies

Family farming is a form of productive organization in which ownership, management, and labor are closely linked to the family unit. According to Abramovay (1997), family management, ownership, and labor are the central elements defining this production model, while Schneider (2003) emphasizes family farming as a social form of production in which family labor plays a decisive role. From this perspective, the production unit cannot be understood solely in terms of its economic dimension, since production-related decisions are closely associated with families' strategies for social and economic reproduction.

Family farming demonstrates a strong capacity to adapt to the economic, environmental, and social conditions in which it operates. Ploeg (2003; 2013) understands family farming not only as a specific mode of organizing production but also as a way of life characterized by the close interaction between family, labor, and nature. Accordingly, the production systems adopted by farmers are shaped by the

characteristics of the farm, the resources available, accumulated knowledge, and the environmental conditions in which they operate.

Within the process of organizing production, one of the most important decisions concerns the selection of productive activities. Farmers may choose either to concentrate their resources on a particular activity or to distribute production across different crops and enterprises. This choice is not determined solely by expected economic returns but also by perceptions of risk, previous experiences, resource availability, and the possibilities for organizing family labor.

Diversification is a common strategy among family farmers, particularly because it enables the combination of different productive activities and income sources. Ellis (1998) argues that the diversification of rural livelihoods can expand families' opportunities for social and economic reproduction while reducing their vulnerability to economic and production uncertainties. In the Brazilian context, Perondi and Schneider (2011) likewise identify both agricultural and non-agricultural diversification as a key strategy for the reproduction of family farming, linking it to income generation and reduced dependence on a single activity.

Diversification may therefore take different forms and should not be understood merely as the presence of multiple crops or activities on a farm. It may involve various combinations of agricultural and non-agricultural activities, oriented either toward markets or household consumption, depending on available resources and the strategies adopted by farming families. This configuration allows resources and income sources to be distributed more broadly and may contribute to coping with instability in markets, climatic conditions, or agricultural production.

Conversely, specialization is characterized by a greater concentration of productive resources in a single activity or in a limited set of activities. This strategy may be associated with the pursuit of greater technical expertise, resource concentration, labor organization, and integration into specialized markets. Hansson and Ferguson (2011), in their analysis of strategic decision-making among farmers, demonstrate that choices related to production organization are influenced by multiple factors and cannot be explained solely by expected economic outcomes. Specialization should therefore also be understood as the result of decisions shaped by farmers' conditions and experiences.

The choice between diversification and specialization is therefore not an exclusively economic decision. Rather, it is related to the characteristics of production systems, accumulated experience, available resources, and the conditions perceived by farmers. In this sense, diversification and specialization can be understood as alternative strategies for organizing production and ensuring the social and economic reproduction of family farming households, with their adoption varying according to the circumstances faced by each family.

This perspective is particularly relevant to the present study because the analysis is not limited to identifying the production system currently adopted by farmers but instead seeks to understand their intention to modify it. Thus, farmers who currently operate diversified systems may consider moving toward greater specialization, while specialized farmers may evaluate the possibility of expanding the range of productive activities. Understanding these potential transitions requires considering not only the

objective characteristics of production systems but also the evaluations, experiences, and perceived conditions of the farmers themselves.

Decision-Making in Family Farming

Decision-making in family farming involves a complex process in which farmers evaluate different alternatives according to the economic, productive, family, and social conditions in which they operate. Production-related decisions are therefore not determined exclusively by the pursuit of economic outcomes, but also by accumulated experience, available knowledge, working conditions, and the possibilities perceived by farmers themselves.

The bounded rationality perspective contributes to understanding this process by considering that individuals make decisions under constraints related to information, time, and processing capacity. Simon (1957, 1963) argues that, in complex situations, individuals do not necessarily have all the information required to identify an optimal alternative, relying instead on decision-making processes shaped by the information available and the circumstances in which the decision is made. In the context of family farming, this perspective makes it possible to understand that production choices are made based on the concrete conditions faced by farmers and the alternatives they are able to identify and evaluate.

Farmers' decisions are also related to the specific characteristics of family farming units. Labor availability, productive resources, experience with certain activities, market conditions, and income-generating prospects may influence the choice of production strategies. Thus, an alternative considered economically attractive may not be perceived as feasible when it requires resources, knowledge, or working conditions that are not available on the farm.

In addition to factors directly related to the production unit, decisions may be influenced by family and social relationships. In family farming, productive activities are often closely connected to the organization of labor and the needs of the family itself, meaning that production decisions are also related to the expectations of family members and to experiences developed over time. In this sense, production decisions should be understood as part of a broader process of organization and reproduction of the family unit.

Accumulated experience may also play a relevant role in decision-making. The knowledge acquired by farmers through the activities carried out on the farm may favor the continuation of certain production strategies, while previous experiences may influence the evaluation of alternatives for change. Thus, the decision to modify a production system depends not only on the existence of an alternative but also on how that alternative is perceived by the farmer in relation to their conditions and experiences.

This understanding is particularly important when analyzing decisions regarding diversification and specialization. A shift from a diversified system to a specialized system, for example, may involve changes in labor organization, investments, and dependence on a particular activity or market. Likewise, the transition from a

specialized system to a diversified system may require new knowledge, resources, and forms of production organization. In both cases, the decision is related to the farmer's perception of the advantages, difficulties, and possibilities associated with the change.

In this sense, understanding decision-making requires moving beyond the analysis of the objective characteristics of production systems toward an understanding of how farmers themselves evaluate the available alternatives and their willingness to make changes. This perspective brings the discussion of decision-making closer to the analysis of behavioral intentions, providing the basis for the use of the Theory of Planned Behavior to understand potential changes between diversified and specialized systems.

Theory of Planned Behavior and Intention to Change

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), is an extension of the Theory of Reasoned Action and is based on the assumption that behavioral intention represents an important antecedent of behavior. Intention expresses an individual's willingness to perform a given behavior and is influenced by three main constructs: attitude, subjective norm, and perceived behavioral control (Ajzen, 1991).

Attitude corresponds to the favorable or unfavorable evaluation that an individual makes regarding a given behavior. This evaluation is related to beliefs about the possible consequences of the action and the individual's assessment of those consequences. Thus, when a person perceives favorable outcomes associated with a given behavior, they tend to develop a more positive attitude toward performing it (Ajzen, 1991; 2005).

Subjective norm refers to an individual's perception of the expectations or opinions of people or groups considered important to the decision. This construct is related to normative beliefs and the perception of social approval or disapproval regarding the behavior. Thus, family and social relationships may contribute to the formation of intentions by influencing how individuals perceive the expectations of those they consider relevant (Ajzen, 1991; 2005).

Perceived behavioral control, in turn, corresponds to an individual's perception of their ability to perform a given behavior, considering perceived facilitators and difficulties, as well as previous experiences and potential obstacles. The greater the perceived control over performing a given behavior, the greater the tendency to perceive its performance as possible (Ajzen, 1991; 2005). This construct is particularly relevant to production decisions, since the intention to make a change may depend on the farmer's perception of the availability of resources, knowledge, labor, and other conditions necessary to implement it.

The three constructs are related to the formation of behavioral intention, although their importance may vary according to the behavior and context being analyzed. In this sense, the TPB does not assume that attitude, subjective norm, and perceived behavioral control necessarily exert the same influence in all situations. The relative importance of these elements depends on the characteristics of the behavior under investigation and the beliefs of the individuals involved in the decision (Ajzen,

1991; Senger, 2016).

In agriculture, the TPB has been used to understand decisions and intentions related to different farmer behaviors. Schroeder, Chaplin, and Isselstein (2015), for example, used this approach to analyze farmers' behavior regarding agri-environmental schemes. Senger (2016) and Senger, Borges, and Machado (2017) employed the TPB to investigate the intentions of family farmers involved in dairy production when faced with the possibility of changing their productive activities. Rosa (2018), in turn, used the theory to analyze dairy farmers' intention to diversify pastures, while Daxini *et al.* (2019) investigated farmers' intention regarding fertilizer use. The literature analyzed in the thesis therefore indicates the application of the TPB in different agricultural decision-making situations, while also highlighting the need to expand its use to understand potential changes between diversified and specialized systems.

In the present study, the TPB is used as a theoretical framework to understand family farmers' intentions when faced with the possibility of modifying their production systems. Behavioral intention is analyzed in two directions: the intention of farmers who adopt diversified systems to shift toward specialization and the intention of those who adopt specialized systems to shift toward diversification. The choice of these two possibilities is based on the research conducted by Senger (2016), identified in the thesis as the study most closely related to the subject investigated.

Thus, the TPB provides the conceptual basis for interpreting farmers' statements regarding potential changes in their production systems, considering their evaluations of the change, perceived social influences, and the conditions they believe they have to implement it. These elements are subsequently used in the qualitative analysis of the interviews, making it possible to relate participants' statements to the dimensions of attitude, subjective norm, perceived behavioral control, and behavioral intention.

METHODOLOGY

This research is characterized as applied and exploratory, employing a qualitative approach. The study was conducted in 20 municipalities within the service area of the Toledo Regional Office of the Paraná Rural Development Institute (IDR-Paraná), a region characterized by the significant presence of family farming and by different configurations of production systems.

Two family farmers were interviewed in each municipality, totaling 40 participants: one farmer with a diversified production system and one with a specialized production system. Thus, the sample consisted of 20 diversified farmers and 20 specialized farmers, allowing for comparison between the two groups. Participants were identified by municipal IDR-Paraná technical staff or, in their absence, by employees of the Municipal Departments of Agriculture, who also classified the farmers according to the predominant characteristics of their production systems.

The interviews were conducted between March 24 and April 9, 2022, lasted an average of one hour and twenty minutes, were recorded, and subsequently transcribed. Data were collected through semi-structured interviews organized into five groups of

questions: participant characteristics, direct intention, attitude, subjective norm, and perceived behavioral control. The interview guide was based primarily on Ajzen's (1991, 2005) Theory of Planned Behavior (TPB) and on the studies by Senger (2016), Machado (2017), and Rosa (2018).

For this article, a specific analysis of the qualitative material produced during the field research was conducted, focusing on intentions to shift between diversification and specialization. Two analytical categories were considered: (a) diversified farmers' intention to shift toward specialization; and (b) specialized farmers' intention to shift toward diversification. The data were organized and coded using MAXQDA software, considering the constructs of attitude, subjective norm, perceived behavioral control, and behavioral intention.

The analysis sought to identify favorable, unfavorable, or limiting factors regarding changes in production systems, as well as to compare the intentions observed among diversified and specialized farmers. Given the qualitative nature of the analysis, the results are not intended for statistical generalization, but rather to provide an understanding of the perspectives expressed by the farmers investigated within the context of family farming in Western Paraná.

RESULTS AND DISCUSSION

Characterization of Production Systems and Intention to Change

The data analysis identified different strategies for organizing production systems among the family farmers surveyed. Although the farms have their own particular characteristics, participants were grouped according to the predominance of their productive activities, distinguishing those who adopted diversified systems from those whose production showed a greater degree of specialization.

The comparison between the groups revealed an important characteristic for understanding production decisions: remaining within the currently adopted system was the predominant tendency among the farmers interviewed. The intention to modify the production structure was limited both among diversified farmers and among those with a greater degree of specialization.

This result indicates that decisions regarding the production system are not necessarily driven by a continuous pursuit of change. On the contrary, accumulated experience and knowledge of the activities carried out may contribute to maintaining already established production strategies. Remaining within the current system may therefore represent a choice considered appropriate in light of existing economic, productive, and family conditions.

This behavior can be understood from the perspective of bounded rationality proposed by Simon (1957), according to which individuals make decisions based on the information and conditions available to them, making it impossible to evaluate all existing alternatives. In the context of family farming, familiarity with a particular activity, accumulated knowledge, and the predictability provided by an already familiar

system may influence the willingness to make changes.

Diversified Farmers' Intention to Adopt Specialized Systems

Among farmers with diversified production systems, the results did not reveal a significant intention to shift toward specialized systems. The absence or limited expression of such an intention suggests that diversification is perceived by farmers as a strategy compatible with their production conditions and the needs of the family unit.

Maintaining diversification may be related to the advantages farmers perceive in distributing their productive activities. Having different sources of production may help reduce dependence on a single activity and provide greater flexibility in the face of price fluctuations, climatic problems, or difficulties specific to a particular type of production.

This result is consistent with Ellis (1998), who considers diversification a strategy used by rural families to expand their possibilities for social and economic reproduction and reduce vulnerabilities. Perondi and Schneider (2011) also emphasize the importance of diversification as a strategy for generating income and coping with uncertainties in rural areas.

However, the absence of an intention to specialize does not mean that farmers are unaware of the potential advantages of concentrating production. Specialization may provide economies of scale, greater technical expertise, and the simplification of certain management activities (Hoffmann *et al*., 1987). Nevertheless, these benefits do not appear to be sufficient to generate a significant intention to change among the diversified farmers analyzed.

From the perspective of the Theory of Planned Behavior, this result can be interpreted by considering that behavioral intention depends on the combination of attitude, subjective norm, and perceived behavioral control (Ajzen, 1991). Thus, even when a given alternative offers potential advantages, the intention to adopt it may remain limited when the farmer does not perceive sufficient benefits, does not identify social support for the change, or believes that they do not have adequate conditions to implement it.

In this sense, diversification may represent not only a production characteristic but also a strategy consolidated throughout the families' trajectories. Accumulated experience with different activities and the capacity developed to manage a diversified system may contribute to reducing the attractiveness of a shift toward specialization.

Specialized Farmers' Intention to Adopt Diversified Systems

Regarding farmers with specialized systems, the results revealed a different situation. Although most also showed a tendency to remain within their current production system, a small proportion of farmers expressed an intention to diversify their production.

This result is relevant because it shows that the intention to change does not occur symmetrically between the two groups. While diversified farmers showed little

willingness to shift toward specialization, some specialized farmers expressed a favorable intention toward diversification.

The intention to diversify among specialized farmers may be associated with the perception of risks arising from the concentration of production. When a significant share of family income depends on a particular activity, price fluctuations, climatic problems, diseases, or changes in market conditions may increase the farm's economic vulnerability. In this context, diversification may be perceived as an alternative for expanding income sources and reducing exposure to risk.

The possibility of diversification may also be related to the pursuit of greater autonomy and flexibility in production organization. Incorporating new activities may allow the family to make use of resources available on the farm and distribute labor throughout the year, although it may also require new knowledge, investments, and forms of organization.

From the perspective of the Theory of Planned Behavior, the intention to diversify may be strengthened when farmers have a favorable attitude toward the change, perceive support from relevant people or institutions, and believe that they have the necessary conditions to implement the transformation. In this regard, perceived behavioral control assumes particular importance, since intention may depend on farmers' assessment of their ability to incorporate new activities into the production system (Ajzen, 1991).

The results also align with Senger, Borges, and Machado (2017), who demonstrated the applicability of the Theory of Planned Behavior in analyzing farmers' intentions regarding diversification. Similarly, Rosa (2018) showed that behavioral factors may contribute to explaining decisions related to the diversification of production systems.

Comparison of Intentions to Change

The comparison between the two groups constitutes one of the main findings of this study. The data indicate that the intention to change follows an asymmetrical pattern: diversified farmers showed little intention to shift toward specialization, whereas a small proportion of specialized farmers expressed an intention to diversify their production.

This difference suggests that diversification may represent a more stable production strategy among the farmers surveyed. Once a system involving different activities has been established, farmers appear to show little willingness to concentrate the farm's resources on a single activity. In contrast, specialized farmers may identify diversification as an alternative for reducing risks or expanding income-generating opportunities.

This result does not allow for the conclusion that diversification is necessarily superior to specialization. The two strategies respond to different conditions and objectives of rural families. Rather, the results demonstrate a difference in the intention to transform the production systems analyzed.

Farmers' tendency to remain within their current systems may also be understood through the relationship between experience and perceived control. Farmers who have accumulated knowledge of a particular activity tend to be more familiar with the production processes, markets, and risks involved. A shift to another system, in turn, may entail learning costs and additional uncertainties.

In this sense, perceived behavioral control becomes an important element for understanding the asymmetry identified. The intention to modify a production system depends not only on considering the change desirable but also on perceiving it as possible and feasible. When farmers believe that they have limited resources, knowledge, or conditions to implement the change, their intention tends to remain limited, even when they recognize potential benefits associated with the alternative.

The analysis conducted in this study therefore demonstrates that decisions related to production systems need to be understood beyond exclusively economic indicators. The choice between diversification and specialization involves behavioral, social, and subjective dimensions that contribute to the formation of farmers' intentions.

Implications for Rural Development

The results have implications for rural development initiatives, particularly those related to technical assistance, rural extension, and public policy formulation. The low intention to change identified among farmers demonstrates that proposals aimed at transforming production systems should not be based exclusively on the provision of technologies or the demonstration of potential economic advantages.

The adoption of a new production strategy also depends on farmers' own perceptions of their ability to implement the change. Thus, rural extension initiatives can contribute not only by providing technical information but also by offering training, ongoing support, and assistance in reducing the uncertainties associated with productive transformation.

In the case of specialized farmers who expressed an interest in diversifying, support policies may facilitate the gradual experimentation with new activities, thereby reducing the risks associated with change. For diversified farmers, on the other hand, the low intention to specialize indicates that public policies aimed at production concentration should consider the strategies already consolidated by families and their reasons for maintaining different activities.

Understanding farmers' intentions may also contribute to the planning of differentiated policies. Farmers with different production systems and perceptions do not necessarily respond in the same way to the same incentives. In this sense, rural development strategies may be more effective when they take into account the characteristics of production systems, farmers' experiences, and their perceptions of opportunities and limitations.

The results therefore reinforce the importance of incorporating the behavioral dimension into analyses of transformations in family farming. The intention to remain within or change a production system is shaped by the interaction among individual

evaluations, social influences, and perceptions of the conditions necessary to implement the change, all of which are elements addressed by the Theory of Planned Behavior (Ajzen, 1991).

Overall, the findings indicate that the shift between diversification and specialization does not constitute an automatic response to changes in economic or production conditions. Farmers' trajectories, accumulated knowledge, and perceptions of the feasibility of change play an important role in shaping their intentions. Thus, understanding these elements may contribute to the design of rural development interventions that are more closely aligned with the realities and strategies of farming families.

CONCLUSION

This study aimed to analyze family farmers' intentions to modify their production systems, considering the possibility of transitioning between production diversification and specialization. Based on the analysis of interviews conducted with family farmers in Western Paraná, it was possible to identify a predominant tendency to remain within the production systems currently adopted.

The results showed that farmers with diversified systems had a low intention to shift toward specialized systems. Among specialized farmers, although the intention to remain within the current system also predominated, a small proportion expressed a willingness to diversify their production. Thus, the intention to change was asymmetrical between the groups analyzed, indicating a relatively greater willingness among specialized farmers to diversify than among diversified farmers to specialize.

These results demonstrate that the choice between diversification and specialization cannot be understood exclusively on the basis of economic criteria. Accumulated experience, knowledge of the activities carried out, social influences, and, particularly, farmers' perceptions of their conditions and capabilities to make changes contribute to the formation of behavioral intentions. In this sense, the Theory of Planned Behavior proved to be an appropriate perspective for understanding decisions regarding changes in production systems.

From a rural development perspective, the results indicate the importance of considering farmers' own perceptions and strategies when formulating technical assistance and rural extension initiatives and public policies. The promotion of productive changes tends to be more effective when it considers not only the potential benefits of a given alternative but also the concrete conditions that families perceive as necessary for its implementation.

As a contribution, this study broadens the discussion of diversification and specialization in family farming by analyzing these strategies from the perspective of farmers' intentions to change. The research also demonstrates that remaining within a particular production system constitutes a decision that deserves consideration in analyses of rural behavior and transformation.

Finally, it should be emphasized that the results are related to the context of the

family farmers investigated in Western Paraná and should not be generalized to other settings without considering their specific characteristics. Future studies may expand the investigation to other regions and employ quantitative or mixed-methods approaches, allowing comparisons across different production contexts and a deeper examination of the relationships among attitude, subjective norm, perceived behavioral control, and intention to change.

REFERÊNCIAS BIBLIOGRÁFICAS

ABRAMOVAY, R. Agricultura familiar e uso do solo. **São Paulo em Perspectiva**, São Paulo, v. 11, n. 2, p. 73-78, 1997.

AJZEN, I. The theory of planned behavior. **Organizational Behavior and Human Decision Processes**, v. 50, n. 2, p. 179-211, 1991. DOI: https://doi.org/10.1016/0749-5978(91)90020-T.

DAXINI, A.; O'DONOGHUE, C.; RYAN, M.; BARNES, A. Understanding farmers' intentions to follow a nutrient management plan using the Theory of Planned Behaviour. **Land Use Policy**, v. 85, p. 428-437, 2019.

ELLIS, F. Household strategies and rural livelihood diversification. **Journal of Development Studies**, v. 35, n. 1, p. 1-38, 1998. DOI: https://doi.org/10.1080/00220389808422553.

HANSSON, H.; FERGUSON, R. Factors influencing the strategic decisions of dairy farmers in Sweden. **Agricultural Systems**, v. 104, n. 5, p. 387-395, 2011.

HOFFMANN, R.; ENGLER, J. J. C.; SERRANO, O.; THAME, A. C. M.; NEVES, E. M. **Administração da empresa agrícola**. 5. ed. São Paulo: Pioneira, 1987.

PERONDI, M. A.; SCHNEIDER, S. Diversificação agrícola e não agrícola da agricultura familiar. In: SCHNEIDER, S.; GAZOLLA, M. (org.). **Os atores do desenvolvimento rural: perspectivas teóricas e práticas sociais**. Porto Alegre: Editora da UFRGS, 2011. p. 205-219.

PLOEG, J. D. van der. **Peasants and the art of farming: a Chayanovian manifesto**. Halifax: Fernwood Publishing, 2013.

PLOEG, J. D. van der; ROEP, D. Multifunctionality and rural development: the actual situation in Europe. In: VAN HUYLENBROECK, G.; DURAND, G. (ed.). **Multifunctional agriculture: a new paradigm for European agriculture and rural development**. Aldershot: Ashgate, 2003. p. 37-53.

ROSA, A. M. **Intenção dos produtores de leite em diversificar pastagens: uma aplicação da Teoria do Comportamento Planejado**. 2018. Dissertação (Mestrado em Administração) – Universidade Estadual do Oeste do Paraná, Cascavel, 2018.

SCHNEIDER, Sérgio. Teoria social, agricultura familiar e pluriatividade. **Revista Brasileira de Ciências Sociais**, v. 18, n. 51, p. 99-121, fev. 2003. DOI: https://doi.org/10.1590/S0102-69092003000100008 Disponível em: https://www.scielo.br/j/rbcsoc/a/rztr5GB6thSx7TVPkw4wf7z/?lang=pt Acesso em: 24 ago. 2026.

SCHNEIDER, Sergio; GAZOLLA, Marcio (org.). **Os atores do desenvolvimento rural**: perspectivas teóricas e práticas sociais. Porto Alegre: Editora da UFRGS, 2011.

SCHROEDER, L. A.; CHAPLIN, S.; ISSELSTEIN, J. What influences farmers' decisions to use biodiversity-enhancing measures? A review of the literature. **Land Use Policy**, v. 46, p. 1-12, 2015.

SENGER, I. **A intenção dos produtores rurais em diversificar a produção: uma aplicação da Teoria do Comportamento Planejado**. 2016. Tese (Doutorado em Desenvolvimento Rural) – Universidade Federal do Rio Grande do Sul, Porto Alegre, 2016.

SENGER, I.; BORGES, G. R.; MACHADO, J. A. D. Intenção dos produtores de leite em diversificar a produção: uma aplicação da Teoria do Comportamento Planejado. **Revista de Administração da UFSM**, Santa Maria, 2017.

SIMON, H. A. **Models of man: social and rational**. New York: Wiley, 1957.

SIMON, H. A. **Administrative behavior: a study of decision-making processes in administrative organization**. 2. ed. New York: Macmillan, 1963.

Submission date: August 10, 2026
Acceptance date: August 24, 2026
Publication date: August 24, 2026

[i] This article is derived from Tiago Fernando Hansel's doctoral dissertation entitled "**Behavioral Intentions of Family Farmers in Decision-Making Regarding Production Diversification or Specialization**", defended in 2022 in the Graduate Program in Sustainable Rural Development at the State University of Western Paraná (UNIOESTE). Available at: https://tede.unioeste.br/handle/tede/6331.