Management Tools for Family Farming

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1. Prelude

Family farming exists not only as a way to ensure the families’ survival included in those units of agricultural production, but also to guarantee occupations within those functional units. Various currents converge in the discussion about the meaning of family farm and how we can conceptualize such a property. In order to understand the essential characteristics of a family farming is important to support more efficient and effective means to manage it, maximizing its resources and also ensuring its sustainability in the marketplace.

The lack of research on family farming units management combined with the precariousness of the used tools, because they were not developed for them and, therefore, it is not considered their specific characteristics, peculiarities and features that characterize their systems, and along with the weak absorption from management information there are identified obstacles to overcome by this segment of the national agriculture.

Thus, it is proposed to create an appropriate management tool for the population of those units, through the use of performance diagnosis of practices under the complexity theory perspective, also identifying their improvement potential and generation of ideas.

The goal is to identify good management practices in the family farms universe by creating a management tool that can be applied to them, and through the obtained results, it might be set up improvement projects to consider their uniqueness.

The use of that tool will allow discovering possible gaps, which are not considered by management mechanisms conventionally adopted, promoting not only the management of those units, but also the research from the present topic.

2. Essential Characteristics About Family Farming

Agriculture is not only a developer resource of survival, but also from jobs. According to Abramovay (1997: 2) for a long time, family farming has been related to the modes of agricultural production from small, low-income and subsistence agriculture. Those
characteristics do not allow determining the family agriculture, as it quotes the author: "Saying those are the essential characteristics of family farming means to ignore the salient features of agricultural development in Brazil and the advanced capitalist countries, in recent years."

Various currents converge in the discussion on what the family agriculture is and how we can conceptualize such property. First of all, it should be considered that family agriculture exists not only as a mean of ensuring the survival of family farms engaged in such production, but also ensuring occupations within those functional units.

The term "family farm" is polysemic, full of meanings and variations. What are we talking about when mentioning the "family agriculture"? In order to be clear, we will use the concept defined by Lamarche (1997: 15) in his study entitled Family Agriculture: the family agriculture "is a unit of agricultural production where labor and property are closely linked to the family". As we can see in Figure 1, the interdependence of those three factors family-labor-propriety will determine the family farming. Do Carmo (1998) refer to the three major functions involved in family agriculture to understand its reproduction logic:

“as três principais funções apostas à exploração familiar, produção, consumo e acumulação do patrimônio, atribui-lhe uma lógica de produção / reprodução em que cada geração procura assegurar um nível de vida estável para o conjunto da família e a reprodução dos meios de produção. O funcionamento de uma exploração familiar passa necessariamente pela família enquanto elemento básico de gestão financeira – destinação dos recursos monetários auferidos – e do trabalho total disponível inteiramente na unidade do conjunto familiar (DO CARMO, 1998:228)”.

The familiar logic reigns. Income is closely linked to the continuity of the family. The land belongs to the family, its reproduction works in the logic of family functioning. Family members’ jobs are also conditioned by that logic, since they depend on that land income. Despite of the family depends on that work and land: there is an interdependence that not only

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1 "The three main functions related to the family exploitation, production, consumption and accumulation of assets provide a logic of production/reproduction, and each generation tries to ensure a stable standard of living for the whole family and means of production reproduction. A family exploitation functioning is, necessarily, related to the family as one basic element of financial management - allocation of monetary resources received - and the total available work in the family unit. (CARMO, 1998:228)."
unites them, but also places them as explorers of the land, their land. Stropassolas concludes (2006: 97): "The farmer is or tries to be, in general, the landowner who owns means of production, worker and family head. The family is the main character".

![Figure 1: Constraint Factors of Production in Family Farms Units. Source: created by the authors².](image)

Although it is constrained by those three mentioned factors (land - work - family), the family farming imbricates a wide variety of situations. Stropassolas (ibid.) reaffirms that diversity by showing some places where family farming brings the development of agriculture and its integration into the market. In some places, it is maintained and recognized as the only way to ensure its social members integration. But, in other places, it is excluded, discredited and intolerable from all forms of development. According to Do Carmo (1998: 231), the coexistence of productive units, with different internal dynamics, inhibits a general explanation for the family farming functioning. There is no single explanation that can help us understand the logic of all family units. There is a multitude of different explorations that operate by following the dynamics of its own familiar logic.

² Adapted from Lamarche (1997).
The diversity of properties that are committed by family farms allows us to state there would be an ideal space for sustainable agriculture, which seeks not only to leverage the economic development of its participants, but also a greater ecological prudence in the use and management of soil and greater social equity, because it brings up a number of alternatives to the construction of individuals.

3. Obstacles To Overcome

Schermerhorn (2007) says an organization has a good performance when its resources are well used. Taylor’s proposal (1971) to ensure better organizations performance is linked to the best use of their resources, avoiding losses and improving utilization. Looking for the best performance, Fayol (1978) argues the organization is a social body and it is the Administration’s duty to manage that body through certain principles. Those principles are appropriate to each situation, because each company is a unique and particular universe. The application of management techniques in family farming is still a recent phenomenon, causing difficulties to overcome by the rural family, as Batalha describes:

Parece inquestionável que um dos importantes entraves à competitividade dos agricultores familiares é a utilização de tecnologias inadequadas. Neste contexto, existe um esforço considerável - embora não suficiente - de desenvolvimento de tecnologias voltadas para os agricultores familiares. Grande parte deste esforço está sendo dedicado ao desenvolvimento e difusão de tecnologias de processo, de materiais e de produtos e serviços. No entanto, pode-se notar que os esforços voltados para as tecnologias de gestão e de informação são ainda incipientes e, via de regra, inócuos (BATALHA, 2004: 1).3

Batalha (2004) also shows two challenges to overcome by the familiar agricultural production management: a systemic management and individual properties management. The systemic management refers to the relations established among farmers, as well as other agents of the agribusiness chains. According to the author, the challenge to overcome in those

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3 It seems clear that one of the major obstacles to the competitiveness of farmers is the use of inappropriate technologies. In this context, there is a considerable effort - although not enough - the development of technologies for small farmers. Much of this effort is being devoted to the development and diffusion of process technologies, materials and products and services. However, you may notice that efforts toward management technologies and information are still incomplete and, as a rule, safe (translation drawned by the author).
systems management is related to the capacity of coordination among its members, since it enables greater gains in hand when they are well managed. The difficulties faced by individual properties management are linked to issues such as inadequacy of existing management tools, as well as low level of farmers’ formal education.

Among the obstacles to overcome on family farms, Buainain, Romeiro and Guanziroli (2003) also mention two more: low productivity, which in many cases turns out to derail, and restrictions associated with establishment size. "In those cases, it should be asked which reasons lead producers to adopt possibly unsustainable systems (...). Even being not profitable (...) and/or socially sustainable, it might be its best and only option. (BUAINAIN, ROMEIRO and GUANZIROLI, 2003: 333).

Batalha (2004) ensures management tools used by agribusiness systems of production (which are inserted in family farming) are inadequate because they were not developed for them and, therefore, they do not consider their specific characteristics and peculiarities that characterize their systems. Batalha corroborates: “very little has been done about management techniques development addressing family farming particularities and ways to get competitive and sustainable inserted in the national agribusiness sector (2004: 2)”. The tools are inadequate and there is vulnerability in the use of strategic information.

Batalha (2004) also considers the following features about managing agribusiness and family farming: (a) seasonality of agricultural production, (b) changes in the quality of agricultural products: climate changes, cultivation techniques, management employees and technological standards of the producers (c) perishable products, (d) seasonality of consumption: dynamics and functioning of consumer markets, (e) quality and food safety: public health issues related to inappropriate application of pesticides, fiscal, health, environmental and labor legislation, (f) food sociology: cultural aspects, social and cultural changes that influence the production, socioeconomic aspects, public policies enabling
sustained competitiveness (credit grant, channels to take away the familiar agricultural production, school meals, information about current or potential markets for agricultural products, management training of family farmers), (g) information technology (IT): tool for communication and coordination among agents of a given agro-industrial system – it's difficulty is related to the exclusion of small producers, network management of small family farmers, relations of inputs producer / agricultural producer and agricultural producer / distribution or agricultural producer / agribusiness.

It must be added, to those factors, other elements that increase complexity to the family farm. Among them, the link among decisions in production and consumption levels in the same unit, as well as the presence in the definition of their survival strategies of symbolic elements associated with representations, values and perceptions with respect to the land, family ties, production and consumption practices, safety in relation to financial and goods markets. (LAMARCHE, 1998).

According to Batalha (2004), in the agrifamilies units there is little use of appropriate management techniques and they are heavily influenced by cultural factors, company heritability and activity knowledge. The units do not use adequate tools in a significant level, in order to collect, record, control and application of information related to the productive activities. Thus, a lot of strategic information remains adrift, and it is not used in the planning and management of those units.

An organization, in order to be considered rational, must approach a model of order with no clutter or waste and next to the ideal balance, harmony, thereby removing antagonisms and conflicts. That way, if the organization looks like a machine, provided with rules of efficiency, labor division and hierarchies, it can be programmed. The advantage would be the fact it is not necessary to think anymore, because everything is done automatically. For the author, the strategy becomes antagonistic to the idealization of a
precise organization. Morin says: "A strategy is something determined by taking into account a random situation, several elements, even adversaries, that would be driven to modify according to the incoming information along the way, thus requiring great flexibility (MORIN, 1986)."

4. Management Tools Apropiate To Family Farming

4.1 Good Practices On Family Farming Management

The economy, in a formal sense of the term, is seen by Polanyi (1957) as a warped way of observing the society, shaping every aspect of social life by imposing meanings and values to them. It is only through substantive analyses from trade forms, use of cash and the market elements that economic and social problems may be eventually addressed and solved. For Polanyi (1957), the use of the market as a unique reference framework, shaper and regulator of social life in general, is an outdated and insufficient vision to explain the current arrangements and dimensions.

Guerreiro Ramos (1989) also sees the market as a category of total inclusiveness, ordering and shaping individual and social life. The author contrasts the predominant one-dimensional model with a new proposal for a multidimensional model that consists of a series of enclaves, and the market is just one of them. In one-dimensional paradigm, the human being is absorbed by the market; his desires and nature are defined by it. Its members are seen as mere jobs keepers without any identity, accepting the rules by threatening systems, becoming parts of an operated and over organized society.

In the multidimensional paradigm, individuals’ effort is related to their own needs for updating. Those needs are experienced by them and they are not determined by the markets, in an open dialogue with the proposal of substantive economy of Polanyi, when emphasizing the economic paradigm is insufficient to analyze social phenomena. The ideas of substantive economy proposed by Polanyi have influenced Guerreiro Ramos to develop his substantive
theory of associated life (SERVA, 1997), which only through the use of substantive concepts is possible to understand values, motivations and current social policies.

Reflecting on the family farming analyses trends, Carneiro (1999) demonstrates they have emphasized the relationship between rural producers and the market they seek to enter, as well as their conditions to meet those demands. So, those analyses highlight the competitive capacity of a production unit, translated into profitability and productivity rates. The author also shows the exclusionary characteristic from that analysis, concluding that it will eventually select a small number of farmers who fit into that productive logic (CARNEIRO, 1999). The reductionist bias of that analysis focused on the production ends up turning the farmer into a mere *hommo economicus*, whose actions would be driven exclusively by the productive process needs, thereby omitting its substantive nature that could make understand its values, motivations and current social policies.

Starting from that premise, when showing the farmer like "any other professional," it also means to be correlated as an urban worker, thus denying or disregarding the cultural components of farmers’ life styles that are normally integrated to diverse economic practices (CARNEIRO, 1999). Thus, the author explains the need to choose as observation unit (and intervention) the family as a social unit. That is, administering the social reproduction of its members in different cultural and material situations. Therefore, it is necessary to take into consideration the cultural aspects and symbolic character embedded in social practices within the family group.

The continuity of the family is consolidated as the logic to the existence of those units. Carneiro (1999) goes further in his thinking when realizing the wide diversity of situations that are present in the family agriculture, showing situations that may present economic success or not and also varying levels of social and cultural welfare. The author also emphasizes the fact economic success does not necessarily mean social and cultural welfare,
citing the example of an economic success, measured by terms of increased productivity and income, along with an intensified exploitation of the working force or the removal of solidarity ties and family structure. All those forms could be categorized as "true farmers", not because they have achieved "economic success" or become "professionals", but they have clinched their social, economic and cultural reproduction through agricultural production.

As the family farm is an ideal space to achieve sustainable development, thus replacing the intensive standard of farming exploitation with no productivity decrease, it is necessary to invest on agricultural research to increase the sustainable systems efficiency. It is also necessary a research commitment in order to find the transition to a new agriculture, "where the maintenance and soil fertility increase, preservation of other natural resources and retention from cultural values in rural communities are part of a development model with new forms of production and social organization (DO CARMO, 1998: 11)".

Buainain, Romeiro and Guanziroli (2003) reinforce the idea by showing that farmers use productive resources more efficiently than large companies, because, even possessing a smaller proportion of land and less available funding, they produce and employ more people in their establishments. But still, it is realized family farming has a lot to improve on their management techniques and market integration. Wilkinson (1997) believes family farming would achieve greater competitiveness and productivity if they had the same access to benefits than large conventional farms.

4.2 Performance Practices Diagnosis From The Complexity Theory Perspective

Morin (1986), when thinking over the organization adequacy for some purposes, checks how much the world can be intelligible in terms of the consistency applied by us. A rational organization must approach as much as possible of an order model, with neither clutter nor waste in order to achieve the ideal balance and harmony, thereby removing antagonisms and conflicts.
And like a machine, the organization is endowed with efficiency rules, labor division, hierarchy and according to that administration ideal it may be programmed. The advantage would be, in fact, no longer necessary to reflect, because everything is done automatically. A strategy, by contrast, is determined by taking into account a random situation, all components, even adversaries, and it would modified in light of incoming information along the way, thus requiring a large flexibility (MORIN, 1986). So, Morin (1986) points out a strategy can be implemented by an organization. That organization does not need to be built in order to follow a schedule, but it may contain elements that contribute for the design and strategy development.

That rational, precise and programmable organization is considered by Morin (1986) as a null model. Such model is obviously hard, and everything that is scheduled suffers from stiffness in relation to strategy, allowing that way to avoid any possible flexibility and adaptability, thus promoting the causes of sclerosis as it is observed in the bureaucratic phenomenon.

The problem of disorder should be considered entirely. It is clear certain disorders have a destructive aspect. The necessary disorder importance is the vital counterpart from the arbitrary and authoritarian aspects from the order. In other words, the cause of disorder excess is none other than order excess (MORIN, 1986).

Balance is something questionable. According to Morin (1986), there is no balance recipe. The only way to fight against degeneration is the constant regeneration from the ability of the whole organization to regenerate and reorganize by addressing all causes, whether classical or new on disintegration.

Administrations are semi-rigid organizations, marked by rigidity thereby determining certain number of problems that can not completely resolve the norm of order, harmony, balance, sustainability and programming. Therefore, their structures require certain order,
continuity and schedule. So, it is when the contrary forces act and can bring death, but also ingenuity, life and adaptability (MORIN, 1986).

5. Potential For Improvement And Generation Of Ideas

The goal of this essay’s is to develop a diagnostic tool and make proposals for management improvement and the establishment of family farms. Thus, it is proposed here to build a management tool that addresses the integration of both areas related to the production, such as distribution and marketing, peculiarities surrounding the establishment of family farming, helping to build a diagnostic performance from practices existing from the complexity theory perspective, identifying the potential for improvement and generation of ideas.

The aim is to establish a set of representing assertive for strategic areas or certain sets of ideas that are able to confront various aspects from different categories of analysis developed by the research group NIEPC – Nucleus of Interdisciplinary Studies on Production Management and Costs, linked to the post-graduation program on Business Administration from the Federal University of Santa Catarina (UFSC).

Assertive are nothing more than expressions of connected ideas, confrontations aimed at awakening some latent points, like problems or opportunities, within the unit to be explored. In order to validate a certain assertive, it is considered its importance and utility in the performance or competitiveness increase, by developing complex relations.

Then, it is possible to say the use of those assertive derives from the need to identify factors of competitiveness in the establishment of family farms, thus strengthening a tool able to provide for improvements and develop the construction of projects. Therefore, competitiveness factors are used in order to direct the development of assertive and grouping the subsequent responses.
Starting from the studies developed by the group NIEPC, ten categories of analysis have been created, and it is believed they comprise a system of production. They are: Cycle Time, Production Unit, Equipments and Technology, Operational Performance, New Products Development, Investments, Quality; Organization and Culture, Health and Safety and Environmental Management.

<table>
<thead>
<tr>
<th>Analysis Category</th>
<th>Justification</th>
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<tbody>
<tr>
<td>Cycle Time</td>
<td>Space of time a product unit needs to be produced.</td>
</tr>
<tr>
<td>Productive Unit</td>
<td>Organization and accessibility of the workplace, correct disposition of the machines, tools and personnel.</td>
</tr>
<tr>
<td>Equipments and Technology</td>
<td>Combination of computational controls, communications, manufacturing processes and related equipments.</td>
</tr>
<tr>
<td>Operational Performance</td>
<td>Organizational system constituted by a complex inter-related of parameters or performance criteria, such as effectiveness, efficiency, productivity, quality, innovation and profitability (for profit centers) or budgetary (for cost centers and non profitable organizations) (SINK e TUTTLE, 1993).</td>
</tr>
<tr>
<td>New Products Development</td>
<td>Study of products development, an ongoing attempt to articulate the market needs, possibilities of technology and expertise from the company within a horizon that allows the continuity of the company's business (COOPER; EDGETT; KLEINSCHMIDT, 1997), directly influenced by cost, time and quality.</td>
</tr>
<tr>
<td>Investments</td>
<td>All the capitalization applied to the means of production.</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td>Quality</td>
<td>Lack of errors (SLACK et al., 1997).</td>
</tr>
<tr>
<td>Organization and Culture</td>
<td>Company identity, values that constitute the organization profile, images, legends, rituals, heroes and villains, role conflicts, areas of tension and resistance, behavioral dilemmas, references, leadership focus, attitudes patterns, myths and other symbolic dimensions.</td>
</tr>
<tr>
<td>Health and Safety Management</td>
<td>Diagnosis and implementation of managerial, technological and structural improvements and innovations inside and outside the workplace</td>
</tr>
<tr>
<td>Environmental Management</td>
<td>Set of guidelines and principles that must drive the definition and implementation of institutional and legal instruments from planning and environmental management.</td>
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**Chart 1:** Organization analysis categories. Tool built by the NIEPC. Source: elaborated by the authors.

Considering the complexity theory, categories of analysis are systematic and individually evaluated, thus considering the connections that occur among them. NIEPC, after having determined the categories to be analyzed, has built a tool for diagnosis and formulation of improvement projects in the productive systems, by considering their established inter-relations.

In order to detect the relations among categories of analysis, and also allow the identification of good practices being used in the production systems, it has been established what the research team chose to designate as "factors." One factor is a reference of
performance within categories of production analysis, and it is also a variable capable of influencing positively or negatively the results from a company. Factors underlie assertive and they are like referential elements capable of receiving improvements, on which or in relation to which we must act. It is believed factors drive improvement actions proposals towards competitiveness. (SANCHEZ, SCHULZ and ERDMANN, 2008).

6. Improvement Projects For Family Farming Management

The management tools developed by NIEPC aimed at assessing the performance and generation of improvement opportunities to the productive sector as a whole. This article seeks to adapt the use of that tool for the family farm management peculiarities. By presenting a wide range of possible situations, family farm establishments also present a high degree of complexity, not only in relation to the productive processes characteristics, but also to the management and organization forms (DE MELLO and ERDMANN, 2009).

This complexity derives from its linkage to the conventional sector of agricultural production, as well as its dependence on natural cycles, climatic factors and different qualities of natural resources available, which distinguishes it with the situation of units linked to industries and services sectors. Among the peculiarities inherent to the production systems from family farming, De Mello and Erdmann (2009) highlight the following ones: (1) seasonal nature of quantity represented by periods of harvest and between harvest, thus leading to significant restrictions in terms of floating capital and storage, (2) perishability, on both raw materials and final products, and (3) variability in the products quality due to weather conditions, production and management techniques, which make it difficult the production standardization and regularity, (4) presence of symbolic elements associated with representations, values and perceptions with respect to the land and families ties, practices of production and consumption, and safety in relation to goods and financial markets. (LAMARCHE, 1997, WANDERLEY, 2001), (5) difficulty in establishing limits for the
production family unit and the importance of the pluriactivity (SCHNEIDER, 2003; GRAZIANO DA SILVA, 1999), and (6) the existence of networks of work exchange among family farming units based on relations of reciprocity.

An essential aspect on family farms viability is referred to the managing ways of those units. The growing interdependence imposed by changes in the environment, where most of the sector develops, determines growing needs for information processing and making strategic and tactical decisions, for which neither family producers nor technicians attached to the sector appear to be adequately prepared. In relation to the management processes, many studies have documented the fragility and inadequacy from management systems prevalent in the agricultural sector, in general, and specially in the case of family farms. We propose, through this article, to develop a tool capable of assessing the family farming units’ performance, and also ensure through a structured process, the diagnosis and identification of actions to improve the results sought by the actors.

Through the analysis categories defined by the NIEPC, it will be established strengths and weaknesses of the production system, thereby identifying competitiveness factors, or aspects of great importance in the production management that are considered to influence positively or negatively a company’s results. So, starting from those factors it is possible to build a set of assertive to each pair of considered analysis categories. Those assertive will be presented to the decision makers in order to evaluate them on a scale of measurement from qualitative type, reflecting the situation of the productive unit in each factor. From the values assumed in those scales, it must be determined the location of strengths and weaknesses in the system. The results obtained through that measurement will allow elaborating along with the family farming, the diagnosis of the unit, so that finally, the priority actions of performance improvement can be identified.
The lack of management tools related to family farming would make more difficult to identify categories of analysis that constitute the proposed methodology base. That way, it would be impossible the application of benchmarking techniques and the identification of their "good practices", as it happens with industrial and services companies. Then, it is proposed to consult qualified informants (such as researchers, technicians and family farmers), in order to validate the categories developed by Friedmann (1998).

Friedmann’s proposal (1998) recovers the complexity and multicausality of family units’ results underlying upon the analysis of necessary conditions to the development within a context of social, economic and environmental sustainability, in opposition to traditional approaches focusing exclusively economic and financial aspects. The author suggests an analysis model based on eight elements that are considered like "social power bases", "means" or available "ways" to access needs satisfaction from the family units’ members of production and consumption. The main elements of that proposal are: (1) Vital space: territorial base of the familiar economy, available space for carrying out productive activities, commercial or not, rural and non rural activities, as well as activities from the domestic sphere performed by the family nucleus, (2) Over time: available time for domestic economy, more than necessary to meet the basic needs of family subsistence, (3) Knowledge, skills, educational level, technical training and specific skills of the family group members that are necessary to carry out productive activities; (4) Appropriate information: pieces of information reasonably accurate regarding production techniques, public services availability, job opportunities, changes on politics settings, whose continuous access becomes essential for the concrete application of knowledge and skills to the development of the family unit, (5) Financial Resources: sources of monetary income from the family group, as well as the access to formal and informal sources of financing, (6) Work Instruments: tools used in the production, access to the land and water, used not only in productive activities (formal and
informal), but also in the housework of the family members, (7) Social Organizations: formal and informal organizations in which family members have participation (sports clubs, churches, neighborhood associations, unions, credit circles) - they are fundamental in the connection of the family with the external environment, and constitute means of living and sources of relevant information to the family unit, and (8) Social Networks: essential for actions to develop reciprocal relations of the horizontal type like relatives, friends and neighbors extending the operating space of the family units.

Starting from validation, reformulation and / or adaptation from the categories of analysis by Friedmann (1998), through interviews with qualified informants, it will be developed the methodology steps of NIEPC, in order to elaborate a diagnostic tool and generate improvement actions for family farming companies. The final stage of the project will be related to carry out case studies that allow testing the tool operational capability. The suggested strategy could meet aspects neglected by traditional approaches to the theme, creating the possibility of a positive impact in the economic viability and living conditions of a significant segment from the rural population.

The complexity of interrelated factors that work as constraints to the development of family farming, also determine that benefits derived from improvements on management systems might not be very evident in the short term, becoming an element of discouragement to its approval. Thus, in order to ensure the motivation of decision makers, it is essential the participation of researchers who act as facilitators in the implementation of the tool. Decision makers must have the perception they are part of the control process. So, the application of the tool may be successful and, therefore, they should be familiar with the characteristics of the methodological process. Given the heterogeneity of situations that characterizes the family farming, it is necessary to redefine the elements considered as categories of analysis for the tool application in different contexts.
7. Final Conclusions

This article presents aspects of a theoretical and methodological proposal for the development of management tools suitable for family farms. The aspects related to management of the production and consumption have received little attention in the academic and professional, in spite of being a factor of importance for the viability of the sector. From the characterization of family farming as a heterogeneous and complex universe, it is postulated the inadequacy of reductionist approaches based exclusively on productivity and exclusive emphasis on financial aspects. It is proposed to develop diagnostic tools and identification of alternatives of improvements appropriate to the needs of the sector to adapt the methodology developed by NIEPC - UFSC, based on complexity theory. This adaptation has as its starting point the rescue of the wider perspective of social actors involved in the identification of categories of analysis, taking into consideration both objective and subjective, and taking into account the values, perceptions, and symbolic aspects that characterize decision-making processes of these units.

8. References


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