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VALIDATION OF THE METHOD OF IDENTIFICATION OF MANAGEMENT DEGREE (MIGG) USING THE METHODOLOGY OF FOCUS GROUPS

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ABSTRACT

This study aimed to validate the Method of Identification of Management Degree (MIGG) as a tool for diagnosis and intervention, applicable in various activities of agricultural production. The MIGG aims to provide information to farmers to enhance their economic activity and turn it into an organized and profitable business over time, through a questionnaire for quick and easy application, able to classify the levels of management of economic activities with varying degrees of organization. This classification provides nine levels of management, from the most elementary to the highest, considered excellent. This classification system allows the establishment comparisons between companies, production processes, technological levels and regions. It can also assist in assessing the competitiveness of local arrangements for sustainable regional development. The method includes the following criteria: leadership, strategy, planning, customers, society, information, knowledge, people, processes and results. It also lets you point strengths and weaknesses and indicate corrective actions to the constant pursuit of quality in the processes. To validate the MIGG, we used the methodology of focus groups, defined as a special type of group interviews. The focus group participants should be experts of the subject under review and are free to express their opinions, and a researcher acts as moderator, preventing dispersions. In this work, the group was composed of rural businessmen in the coffee sector, members of the Association of Coffee Growers of Western Bahia (ABACAFÉ), Brazil. These businessmen form a homogeneous group with regard to the technology used in coffee production, particularly regarding the use of irrigation, mechanization of farming and harvesting, and environmental conditions of cultivation. This uniformity is desirable in the use of the methodology of focus groups. Each group participants responded to the questionnaire MIGG, and evaluated the appropriateness and relevance of the parameters that make up this method. From this focus group discussions, adjustments in the wording of some questions were made, but without any need to change their content, which confirmed the validity of the method.

Key words: Competitiveness; Quality management; Regional development.

VALIDACIÓN DEL MÉTODO DE IDENTIFICACIÓN DEL NIVEL DE GESTIÓN – MIGG – USANDO EL MÉTODO DE GRUPOS DE ENFOQUE

RESUMEN

El objetivo de este trabajo es validar el Método de Identificación del Grado de Gestión (MIGG) como una herramienta para el diagnóstico y la intervención, aplicables en las distintas actividades de la producción agrícola. El MIGG tiene como objetivo proporcionar información a los productores para mejorar su actividad económica y convertirla en un negocio organizado y rentable en el tiempo por medio de un cuestionario para el uso rápido y fácil, capaz de clasificar los niveles de gestión de las actividades económicas con diferentes grados de organización. El sistema de clasificación ofrece nueve niveles de gestión, desde el más elemental hasta el más alto, que es excelente, y permite el establecimiento de comparaciones entre empresas, procesos de producción, niveles tecnológicos y regiones. También puede ayudar en la evaluación de la competitividad de los arreglos locales para el desarrollo regional sostenible. El método incluye criterios de liderazgo, estrategia, planificación, clientes, sociedad, información, conocimiento, personas, procesos y resultados. También sirve para indicar las fortalezas y debilidades e indicar las medidas correctivas a la búsqueda constante de la calidad en los procesos. Para validar el MIGG, utilizamos la metodología de grupos focales, que se define como un tipo especial de entrevistas grupales. Los participantes del grupo especial deben ser conocedores del tema en cuestión y ser libres de expresar sus opiniones, y un investigador actúa como moderador. En este trabajo, el grupo estaba compuesto por los empresarios rurales del sector cafetero, asociados a la Asociación de Cafeteros de Bahía Oeste (ABACAFÉ), Brasil. Ellos forman un grupo homogéneo en términos de condiciones de suelo y clima de cultivo y de la tecnología utilizada en la producción de café, sobre todo en relación con el uso del riego y la mecanización de la agricultura y la cosecha. Esta uniformidad es deseable en la metodología de grupos focales. Los participantes del grupo respondieron al cuestionario MIGG, y evaluaron la pertinencia y relevancia de los parámetros que componen este método. De las discusiones del grupo se hicieron ajustes en la redacción de algunas preguntas, pero sin cambiar su contenido, lo que confirmó la validez del método.

Palabras clave: Competitividad, Desarrollo Regional, Gestión de la calidad.

VALIDAÇÃO DO MÉTODO DE IDENTIFICAÇÃO DO GRAU DE GESTÃO – MIGG UTILIZANDO A METODOLOGIA DE GRUPOS FOCAIS

RESUMO

O objetivo desse trabalho é validar o Método de Identificação do Grau de Gestão (MIGG) como ferramenta de diagnóstico e intervenção aplicável nas diversas atividades da produção agropecuária. O MIGG visa fornecer informações aos produtores para aprimorar sua atividade econômica e transformá-la em empresa organizada e rentável ao longo do tempo, por meio de um questionário de fácil e rápida aplicação, capaz de classificar os níveis de gestão de atividades econômicas com diferentes graus de organização. O sistema de classificação estabelece nove níveis de gestão, da mais primária à mais elevada, considerada de excelência, e permite que se estabeleçam comparações entre empresas, processos produtivos, níveis tecnológicos e regiões. Ele pode ainda auxiliar na avaliação da competitividade de arranjos locais, visando o desenvolvimento regional sustentável. O método abrange critérios de liderança, estratégias, planejamento, clientes, sociedade, informações, conhecimento, pessoas, processos e resultados. Também permite apontar pontos fortes e fracos e indicar ações corretivas visando à busca constante da qualidade nos processos. Para validar o MIGG utilizou-se a metodologia de grupos focais, definida como um tipo especial de entrevistas em grupo. Os participantes do grupo focal devem ser profundos conhecedores do assunto em pauta e ter liberdade para expor suas opiniões, e um pesquisador atua como moderador. Neste trabalho, o grupo foi composto por empresários rurais do setor cafeeiro, membros da Associação dos Cafeicultores do Oeste da Bahia (ABACAFÉ), Brasil. Eles formam um grupo homogêneo quanto às condições edafoclimáticas de cultivo e à tecnologia utilizada na produção cafeeira, principalmente quanto ao uso de irrigação e mecanização da lavoura e da colheita. Essa uniformidade é desejável na metodologia de grupos focais. Cada participante do grupo respondeu ao questionário do MIGG e avaliou a pertinência e relevância dos parâmetros que compõem esse método. A partir das discussões do grupo foram realizadas adequações no enunciado de algumas questões, porém sem necessidade de alterar o conteúdo das mesmas, o que confirmou a validade do método.

Palavras-chave: Competitividade, Desenvolvimento regional, Gestão da qualidade.

1 INTRODUCTION

The producer or rural businessmen as agents of agricultural production chain in their work process dispenses much of his time and energy to technical issues and conducting routine tasks, relegating to the background the administrative aspects of the activity. With that other important steps are harmed, such as planning and searching for information, compromising the activity as a whole.

Despite the broad technical experience in cultivation, resulting from years of work, the management of the business is still, in most cases, primitive and intuitive. The use of information is done empirically, and grounded in feelings. Decision-making are not very rational, since they are not guided by methods that enable a systematic reproduction of processes. A challenge for the industry is the training of rural businessmen, to assimilate it and apply the concepts of competitiveness, quality and management, replacing the simple idea of making a profit.

In the industrial processes, the maintenance of competitiveness is ensured by quality management, today omnipresent in all stages. It is only obtained through a continuous improvement process based on meeting the requirements of customers, adoption of innovations and rapid incorporation into the production process, reducing internal costs, increase productivity, improve the image and access to new markets. This process resulted in the creation of internal management systems essential to maintain or increase the competitiveness of micro and small businesses worldwide (Coltro, 1996; Previero, 2000; Correa, 2006; Cardoso et al, 2008).

The issue has been extensively studied since the end of World War 2, in the 50s, when the reconstruction of Japanese industry from the American experience. Since that time the concern for quality management continuously grows between companies from different economic sectors. Several tools have been developed aiming at the application of the concepts of quality, since the processes, through the product until it reaches the customers (Abrantes, 2001; Abrantes, 2009).

For the companies of coffee industry the reality is similar: the creation of internal management mechanisms is very important, since the improvement of agricultural processes, to product placement in the target market. The identification of the degree of management of the activities of these companies, simply and quickly, obtained by applying the Method for

Identification of Management Degree - MIGG contributes to the structuring of your business in an organized manner and to obtain finished products of superior quality.

Identification Method of Management Degree – MIGG

The MIGG (Method of Identification of Management Degree), was developed at the Faculty of Agricultural Engineering - FEAGRI, University of Campinas - UNICAMP, between March 2004 and June 2013, for the sectors of flowers and greenery, and in cooperation with Agronomic Institute - IAC, for the coffee sector (Bliska Jr, 2010; Bliska Jr, 2012a; Bliska Jr. 2012b).

For selection, prioritization and ranking of issues and adopted managerial indicators, MIGG was based on the criteria recommended by the National Quality Foundation (FNQ) and used in your system of evaluation of management companies, the Model of Excellence in Management® (MEG) (FNQ 2007; FNQ 2009a; 2009b).

The MIGG - Coffee was developed in four main stages:

- 1) Collection of information on agricultural production, harvest, post-harvest, packaging, logistics and administrative aspects - Rapid Rural Appraisal - RRA (Tirado, 2009) and a survey of industry characteristics - Collection Method and systematization of Secondary Information – MECASIS (Tirado, 2009)
- 2) Identification of the critical factors for supply chain based on the results of the previous phase and the selection and prioritization of parameters to assess the sustainability of coffee production by means of the Delphi technique.
- 3) Comparing the critical factors for the chain of coffee production, and secondary information identified in the first step, with the criteria used in MIGG built for the production of cut flowers.
- 4) Implementing the itinerary management, aiming at the continuous raising of quality standards at all stages of the agribusiness system. A questionnaire evaluated by values and weights, was prepared based on MIGG - Flowers.

The MIGG - Coffee was developed between January and June 2012 Withdrawals through RRA and MECASIS methods were supplemented by studies in the Agronomic Institute, in the periods 2001-2006 and 2007-2008. Results of these studies were submitted to the evaluation of five experts in the coffee sector in May 2012 to review and update. The critical points of the chain were identified and raised the technological and non-technological

demands to be met to reduce the impact of critical factors, and identified and prioritized the indicators of environmental, social and economic sustainability for coffee production.

The characteristics of MIGG allow it to be suitable for other agricultural sectors, since the critical points regarding the management of quality, productivity and profitability, specific to the activity under study should be identified.

The questions that comprise the evaluation questionnaire are straightforward, direct and admit only two answers: yes or no. Therefore subjectivity that often accompanies the descriptive or qualitative methods is minimized. The itinerary aims to continuously raising the standards of quality in all stages of the agribusiness system.

Beneficiaries

The MIGG provides subsidies to raise the level of quality management in agricultural companies - rural properties and enable their survival or long-term growth. The assessment of the management of these companies benefit agribusiness, mainly by indicating corrective actions to the management process, provided by the script generated by MIGG, consequently increasing the competitiveness of coffee farmers.

Consumers will be benefited from agricultural products with best quality that meet the world's growing demand for products whose production processes become minimum waste and unnecessary costs, and resulting in significant and positive impacts on the environment and on health workers, rural businessmen and consumers, contributing to sustainable rural development.

And policymakers may enable specific sectoral programs for sustainability, both with respect to the development and diffusion of new technologies, the formation and training of rural workers or businessmen, based on critical management points identified sectoral and regionally.

Objective

The aim of this study is to validate the Method of Identification of Management Degree – MIGG to achieve the expected goals, through their application in the Brazilian agricultural sector.

2 METODOLOGY

To validate the MIGG, we used the methodology of Focus Group (FG), applied to a group of rural businessmen, associated with ABACAFÉ, Association of Coffee Growers of Western Bahia, Brazil's important coffee-growing region. These businessmen make up a homogenous group in terms of soil and climate conditions of cultivation and the technology used in coffee production, particularly regarding the use of irrigation and mechanization of farming and harvesting coffee. This uniformity is desirable in the methodology of focus groups.

Association of Coffee Growers of Western Bahia

The Abacafé is headquartered in the city of Luís Eduardo Magalhães, in Western Bahia region. It operates in the municipalities of the Cerrado of Bahia where it is grown over 15,000 hectares of coffee in May 2013. This area is distributed among 37 farmers, 26 of them are associated at ABACAFÉ.

The Association develops actions of collective interest of the regional coffee farmers, in particular, of its members. Currently it invests in a new organizational format of coffee agribusiness, through a process of Coffee Geographical Indication for the Western Region of Bahia. Aware that in addition to producing at lower costs and with better quality it is necessary to market the product well, the Abacafé constantly seeking new markets, integrating actions to strengthen regional coffee production, through innovation, cost reduction and social integration of those involved, to maximize the generation of resources through a corporate governance structure (Abacafé, 2014). The Association is headquartered along with the Agricultural Cooperative of Western Bahia (Cooproeste).

The coffee produced in the Western Region of Bahia is recognized for its distinctive quality - nice flavor, good fragrance, floral and slightly fruity aroma, great sweetness and good acidity. The average growth temperatures vary between 22 and 26 ° C, there is no risk of frost, or interruptions in the development of the plantation during the year, due to be little variation in temperature. The average rainfall is 1,600 mm per year, distributed between the months of October and April. In the dry season, crops are irrigated, with 90% of the area irrigated by pivot and 10% drip. Harvesting and post-harvest occurring during the dry season, which contributes to obtaining good quality coffees. The light and medium altitude, respectively 3,000 hours per year and 800 meters, are favorable to good development of Arabica coffee. The relief plan allows the mechanization of cultivation and harvesting. The

soils are sandy, with very low percentage of organic matter (Abacafé, 2014; Vale, 2013). Regarding cultivars, 95% of the area is cultivated with Catuaí (red or yellow).

Farmers have business profile. Generally they originate from traditional coffee regions or working in other sectors of the Brazilian economy. Investments in technology are intense and the average yield of crops are high.

Focus Groups

The methodology of Focus Group (FG) has been frequently reported in the literature as to the appropriate validation tests applied through questionnaires. Here are the definitions of GF frequently in literature:

Rodrigues (1988): Fast, easy and practical way, the researcher contact the people which aims to study.

- Krueger (1996): meeting of people with certain characteristics, and which produce qualitative information on a specific issue.
- Gomes and Barbosa (1999): an informal discussion group and reduced in size, in order to obtain detailed qualitative information.
- Cross et al (2002): research technique in which a group of people who belong to the target public, discusses information about a specific issue that is the focus of the study.
- Pizzol, 2004: special type of group interview in order to gather detailed information on a specific question from a group of selected participants. Participants should feel free to reveal the nature and origins of his views, enabling issues to be understood broadly. The goal must be well defined so that the group focus on important issues and be motivated to participate in the whole process. The optimal size is 10-12 members, so that there is effective participation of the entire group. There must be a moderator, responsible for organizing the agenda and prevent the dispersion of the matter under discussion.
- Guimarães et al (2004): Previous qualitative step to quantitative studies. Advantages: Primary source of information to develop and test questionnaires and scales to quantitative surveys; means for interpreting quantitative results obtained previously; means to provide an initial overview to study a specific issue, not yet explored scientifically. Disadvantages: possibility of different interpretations of a particular matter, on the part of participants in

the process; difficult to generalize the results; the fact of truth is relative to the context in which the question arises object of knowledge and the criteria used in their study.

In summary, GF is a sample of the target population to be screened, observed in informal conditions, but with greater detail. Thus it is possible to assess the correspondence of research with the reality of the study population.

Application of MIGG and Performance of Focus Group

In May 2013, MIGG was applied *in situ* in five of the 26 farmers associated with Abacafé. The focus group consisted of eight representatives of the coffee sector in Western Bahia region: two businessmen in the coffee sector with activities in other economic sectors; a taster of coffee and representative Cooproeste; a businessman in the coffee sector and representative Abacafé; a consultant in the coffee sector and representative Abacafé; three consultants in the agricultural segment of the coffee industry.

First the team that developed the MIGG visited three major coffee companies, two located in the city of Luís Eduardo Magalhães and the municipality of Barreiras, accompanied by the Executive Director of Abacafé to know the system of coffee production in the region. Following visits to each of the properties MIGG questionnaire was applied *in situ*. Then the team received two other farmers in Abacafé headquarters, where the other two questionnaires were applied MIGG. One of those farmers is considered mid-sized business and the other is a consultant to the coffee sector in the region and produces coffee mainly to test the regional performance of different cultivars.

With the tabulation of results were obtained, the scores from each of the companies analyzed, for each evaluation criteria and ultimately the total score, considering the weights of each of the issues that make up the MIGG. From the achieved score were obtained the degrees of management of each of the companies.

The work of GF were held at the headquarters of Abacafé, according to the following steps:

- First GF members presented a summary of the characteristics of the coffee production system in the Cerrado of Bahia, according to their vision.
- Group members were asked to answer the MIGG, as if they were in the condition of businessmen.

- Next, each of the group members filled out an evaluation form of MIGG and verbally expressed their concerns about the applicability of MIGG to agricultural enterprises of the coffee sector in Western Bahia. Verbal considerations have been noted.
- Group members were informed about the companies that have been applied MIGG. The characteristics of management systems of these companies were discussed.
- The results of the questionnaires MIGG classified into levels of management, according to their scores were presented to members of the GF. Management levels were compared with the characteristics of regional coffee production discussed in GF.

The MIGG evaluation form consisted of six questions which assessed: the level of difficulty of the questions; the originality of the method; the level of coverage of the issues; the relevance of the questions regarding the activity to be evaluated; the existence of important points not included and that should be included in the questionnaire; and the need for other kinds of adjustments. Three questions were subdivided into two parts, the first with multiple choice answers and the second part open for comments. The other three questions were prepared, only to open answers.

3 RESULTS

Table 1 shows the total score of the companies evaluated by the MIGG in Western Bahia and some characteristics of the properties. Members of GF, considered that management levels obtained through MIGG were compatible with the expected by the group, according to the previously known characteristics about each of the companies evaluated result. The team also collated management levels obtained with the considerations and discussions obtained during the work of GF and found them consistent with the previous estimate.

Table 1. Management level, five coffee companies, Western Bahia region, MIGG-Coffee methodology, 2013.

Company	Total area of the property (ha)	Area cultivated with coffee (ha)	Number of permanent employees in the coffee farm	Level of management
1	4500	616	17	8
2	6500	100	5	8
3	1100	530	32	9
4	120	20	6	8
5	16	4	2	6

Source: Data from the study.

Table 2 shows the results for the three multiple choice questions of the evaluation form MIGG applied to members of the Focus Group.

Table 2. Results of the MIGG by the Focus Group, regarding the degree of difficulty of the questions, possible contribution and scope of the method.

Assessment of Focus Group		
Difficulty	High	0
	Medium	2
	Low	6
Contribution of MIGG for assessing management	New way to assess the activity	6
	Never thought in evaluating management	2
	The tool will not help companies	0
Scope	Very wide	1
	Comprehensive enough	7
	Shortly broad	0

Source: Data from the study.

From the discussions of the group, adjustments in the wording of some questions were made, but without changing their content, which confirmed the validity of the method.

4 CONCLUSIONS

Comparing the results from the focus group with the management levels of the coffee companies obtained through MIGG in the Cerrado of Bahia, it is concluded that this methodology is suitable for measuring the degree of corporate management, since the results correspond to those obtained previously expected.

Therefore, the method can provide reliable information for elevating the competitiveness of coffee enterprises, by indicating the corrective actions to the management process.

Also can support formulators of public and private policies, such as cooperatives and farmers, in developing programs aimed at sustainability sector, both in relation to the development and diffusion of new technologies, the formation and training of human resources, based on the identified critical management points, whether local, sectoral or regional.

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