

Strategic Map For Rice Processing Agroindustry: Study In A Brazilian State

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ABSTRACT

The objective of this article was to identify current managerial practices in the rice processing industries of the state of Rondônia-Brazil to propose a strategic map, based on the balanced scorecard. For the development of the research were interviewed managers of the six agroindustry that benefit rice in the State. With the interviews, it was noticed that the managers maintain their managerial practices with respect to clients and suppliers based in the tradition; nevertheless, they indicate that the efficient logistics and the conditions of payment are important factors in both perspectives. Within human resources perspective, the small companies still owns a personal and non-formal relationship toward their collaborators, while average industries have a more professional relation. Other administration practices summarize in the company financial control. The construction of the strategic map was based on the points elucidated in the interviews along with the pertinent literature.

Keywords–Agribusiness, Agroindustry, Balanced Scorecard, Management, Strategy Map

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I. INTRODUCTION

Agribusiness is one of the most significant and important segments of the Brazilian economy. The growing demand for products and products to receive from the sector has driven the adoption of systems and management strategies that result in higher productivity and increases in quality in the processes and products of the segment [1]. The continuous search for the optimization of its processes, products and services has led rural organizations to an increasingly supported management in the use of information systems and performance indicators [2]. It is essential to have detailed data and information about the entire organization and the correct use of data to control the rural organization in its internal and external processes, as well as to identify opportunities for improvement. [3].The Performance measurement practices are presents in [4], [5], [6], [7], [8], [9], [10] and others. However, through preliminary research, a consensus was not found on which indicators are the most pertinent to control agroindustrial performance, independent of the role played by the actor inserted in the productive chain. Some proposals for indicators, most of which are financial, are proposed, which seek to monitor the agent belonging to the agro-food production chain.

However, the literature does not address the managerial practices of managers belonging to the industries benefiting the agricultural segment in relation to their suppliers (farmers / cooperatives / intermediaries), customers (wholesale / retail) and human resources.

Considering information as a strategic input for decision-making, the objective of this article is to reveal, through interviews, management practices about suppliers, customers and human resources, and use of performance indicators for them. The study was developed with the rice processing industries of the state of Rondônia-Brazil. After the interviews, was elaborated the strategic map. which provides the cause and effect vision of the business processes and goal the proposition of strategic performance indicators based on the Balanced Scorecard and customized for the agroindustrial context.

II. THEORETICAL FRAMEWORK

In this section, we will present the theoretical background regarding the theme discussed. There is no claim to exhaust the subjects addressed, but bring enough elements that can support the achievement of the research objectives.

1.1 Agribusiness productive chain

The agribusiness concept cited by Goldberg as being a commodity system that incorporates all the actors involved in the production, processing and distribution of a product [11]. Such a system, defined by Goldberg, includes in the definition the commercialization of inputs, agricultural production, operations of harvesting, storage, processing (processing) and distribution to the wholesale and retail. Over time, assigning to agriculture only the concept of the primary sector has lost its meaning in the industrialization and provision of services within the systemic environment in which rural activities are embedded. The economic exploitation of the countryside represents only a fraction of a broad grouping of productive, technological, and market interrelationships and interdependencies [2].

To understand the complexity of agroindustrial systems and make strategic decisions, industry players need to understand how markets organize and how agents act [12]. The agroindustrial Systems, the segment divided into: (a) before the gate - encompasses the entire productive chain of research, development, services and supply of raw materials and machinery essential to agricultural production. (b) inside the gate - contemplates all productive activities, representing different forms of economic exploitation of the available productive factors. Here is the rural entrepreneur or farmer, who is responsible for aggregating value in economic terms acting in agriculture and livestock activities. (c) After the gate - represented by agroindustry's, brokers, distributors and commerce in general. It covers activities related to the processing, distribution and commercialization of agroindustrial products until they reach the final consumer [13].

In the systemic and dynamic environment in which agribusiness organizations inserted, the manager, regardless of the stage of the port, should be able to identify possible threats and opportunities that are emerging in the administrative horizon, in order to subsidize the elaboration of specific strategies for your segment [2][13]. In this way, decision making as a strategic and fundamental factor in agroindustrial activities. The cost information should be used as a parameter, but the imprecision in its calculation can compromise both the accounting structure of the company and the decision-making of the entrepreneur [14]. In addition to the financial perspective, the strategic importance of non-financial aspects in the agroindustrial segment, they address the storage capacity, marketing aspects, research and development of new products, human resources, process and product quality monitoring and customer satisfaction [15][16].

1.2 Balanced Scorecard

The Balanced Scorecard, a methodology created by Kaplan and Norton in 1992, has the objective of assisting strategic management by achieving objectives through the measurement of indicators [23]. Kaplan and Norton point out that the objectives and measures of the Balanced Scorecard come from the visions and strategies traced by the company, condensed into four perspectives, and in each of the perspectives (financial, clients, internal processes and learning and growth) are the objectives, indicators, goals and initiatives [21].

The balanced scorecard proposes a set of balanced indicators in four perspectives that make up an organization. There is a cause and effect relation between them and they affirm that in order to achieve the financial objectives it is necessary to meet the needs and expectations of the client, and that the internal processes must be standardized, continuously improved and rigorously controlled [24]. The structure of the balanced scorecard is described below.

The financial perspective are linked to the measurement of an organization's financial performance. This measure defines whether the strategy implemented by the company is having a positive effect on financial results and the attainment of objectives, which in this perspective are generally linked to profitability [20]. The vision and strategy aimed at the clients' part seeks to identify the clients and in which market the company is inserted, what the value proposed by the organization for its clients, besides the measures necessary to measure the achievement of objectives pertinent to the perspective, as per example, satisfaction, retention and acquisition of new customers [20].

Internal processes relate to critical processes diagnosed by corporate executives who must achieve excellence, according Kaplan and Norton the processes measured are those that have the greatest impact on customer satisfaction and financial goals. Finally, the learning and growth perspective identifies the infrastructure the firm must build to deliver long-term growth and improvement, and this perspective comes from employees, organizational procedures, and systems [20].

It can be remembered that the four perspectives are only one model and that can be altered according to the rule of each organizational context

1.3 Strategic Map

Following the increasing use of the Balanced Scorecard in the early 1990s, patterns were mapped, which together in a frame of reference was called the Strategic Map. It describes the process of transforming tangible assets into tangible results for clients, and therefore into financial results.

The strategic map aims to show in an integrated way the strategic objectives listed in the perspectives, and demonstrates the link between objectives from different perspectives. The perspectives are aligned horizontally on the map, based on the learning, and the perspective of growth of the workforce of the organization. Its goals, as soon as they are achieved, serve as the basis for reaching what has been drawn into internal processes, which serves the client's perspective, which ultimately drives the financial goals [21].

III. METHODOLOGICAL PROCEDURES

For the development of this work, a qualitative research was carried out through semi-structured interviews with managers of the rice processing industries in the state of Rondônia-Brazil. In the interviews, we sought to identify the positioning of companies regarding the perspectives of the balanced scorecard and its strategies through content analysis.

According to a register of companies in the state of Rondônia-Brazil, in the year 2018, six active industries were listed, practicing the husking, processing and marketing of rice. Field research occurred in the period from January 8 to 12, 2018, during the researcher's visit to the state. The interviews were recorded and later transcribed, lasted an average of 20 minutes. In one of the interviews, the two proprietary partners participated and in the others, there was only one representative. In order to maintain the confidentiality and confidentiality of participants' data, identifiers were assigned to respondents, varying from E1 to E6. The NVIVO software was used to data analyze, the answers was grouped by respondents and by subject.

IV. FINDINGS

The information collected through the interviews with the managers of the industries studied was organized and compiled to facilitate data analysis.

1.4 Financial Perspective

The practices most used by the interviewees are related to the establishment of commercial (financial) goals, some interviewees are unable to express themselves in relation to their managerial practices, since most of them occur in an informal way. According to the managers E1, E2, E4 and E5 in their companies are used sales volume and sales targets. Companies E1 and E2 hold periodic meetings to monitor billing targets. The company E2 uses one more practice at meetings, which consists of bringing together the sales team to promote the best sellers and what initiatives they have taken to improve their sales. In addition, it can be seen from

the interviewees' citations that most agro industries monitor their performance in an informal way. Only E1 and E2 have a better-structured process of monitoring and control, and according to both, this is thanks to the information system used by the company, which provides some data processed and arranged in graphs and reports. Efforts are being made by companies E3 and E5 to formalize best management practices. One factor indicated by companies E3 and E6 is the lack of professionals with a compatible profile and training managerial functions, which makes it difficult to attempt to professionalize them.

1.5 Customer perspective

From the interviews, it was noticed that no company makes use of customer satisfaction indicators; in addition, some of them reject this management practice. Interviewee 2 (E2) indicates the existence of a relationship of dependence of the wholesale and retail with the brand of rice commercialized by the agroindustry. Regarding the decision-making process, the interviewed managers affirm that they make their decisions according to the purchase negotiations. The flexibility of payment and negotiation deadlines for lower prices varies according to the customer's purchasing power, delinquency and customer loyalty time with the industry. These facts are evident, especially in the respondents E1, E2, E3 and E4, who cite requirements of commercial advantages such as longer term or bonus products when customers will order a large volume.

The relationships between the industries and their customers (wholesale and retail) are governed in a personalized way. The bargaining power still determines commercial relations, a fact that may be negative for the respondent E6, who states that bargaining the price of his product a lot with retailers can cause a great variation for the final consumer, making loyalty difficult of your brand. During the interviews, companies E1 and E2 signaled that alliances between industry and retail are important practices. The aforementioned interviewees point out that the partnerships with their customers are fundamental to gaining prominence in the gondolas, especially when they want a strategic position in the retail for their products. For both, when retailers want to put their products on tabloids and other promotional media, the partnership is made in the form of product subsidies, and you do not have to pay to keep your products featured.

1.6 Internal Process Perspective

From the perspective of internal processes, suppliers were highlighted as key players in the companies' strategy. But two distinct positions are

perceived in relation to the importance of monitoring them. Respondents E1, E2 agree to be relevant indicators as a way to track their suppliers, yet only the respondent E1 uses performance indicators for suppliers. He points out that with his indicators he can have a history of rice quality per supplier and the average delivery time of the product. The other respondents say they only have the accounting control of purchases of raw material.

It is noticed that most managers do not use performance indicators for suppliers. One of them (E4) said he did not feel the need for mechanisms because it is a commodity heavily regulated by the market, that is, prices are similar and the supplier payment rule is about the percentage of whole grains of the amount purchased by the industry. In the decision-making process, with regard to the rice purchase process, all the interviewees agree that the main factors are delivery times, prices and payment terms.

1.7 Learning and Growth Perspective

This perspective divided into two parts; the first one refers to human resources and the second about the information infrastructure of the company. In this perspective, the interviewees and their respective statements were not identified due to ethical reasons, since managers talked about their employees, however, it was noticed that the managerial practices regarding the human resources of the agroindustry's and the strategic value of the information structure for the company would vary according to your size. Managers of medium-sized companies maintain a more professional relationship with their employees, while those of small companies have indicated that they have a more

personal relationship. Among the answers, some common points about the role of employees in generating value for the company are highlighted, as well as some individual managerial practices varying from one company to another. All interviewees stated that it is important for employees to be trained in the technical operation of machinery and to properly use personal protective equipment. One of the medium-sized companies positioned itself more attentively to the importance of a control under its collaborators.

Regarding the information infrastructure, entrepreneurs of small-scale agro-industries did not highlight as very relevant, some said that a small internal network is sufficient; however, they stated that internet access is always necessary for issuing incoming and outgoing invoices. The information systems used by three of the small companies are only the system of fiscal issuance of notes and internal control with spreadsheets. Meanwhile, medium-sized agroindustrials reported the importance of a network infrastructure in order to keep their information safe (backup) and affirmed that it is extremely important to guarantee access to the internet due to the fact that their information systems issue incoming and outgoing notes of products and also the internal control of inventory and customers.

1.8 Strategy Map

In this section, it is proposed the suggestion of a strategic map addressing the perspectives of the Balanced Scorecard under the Financial, Customers, Suppliers and Human Resources field, appropriate to the reality of the local agroindustries (Fig 1).

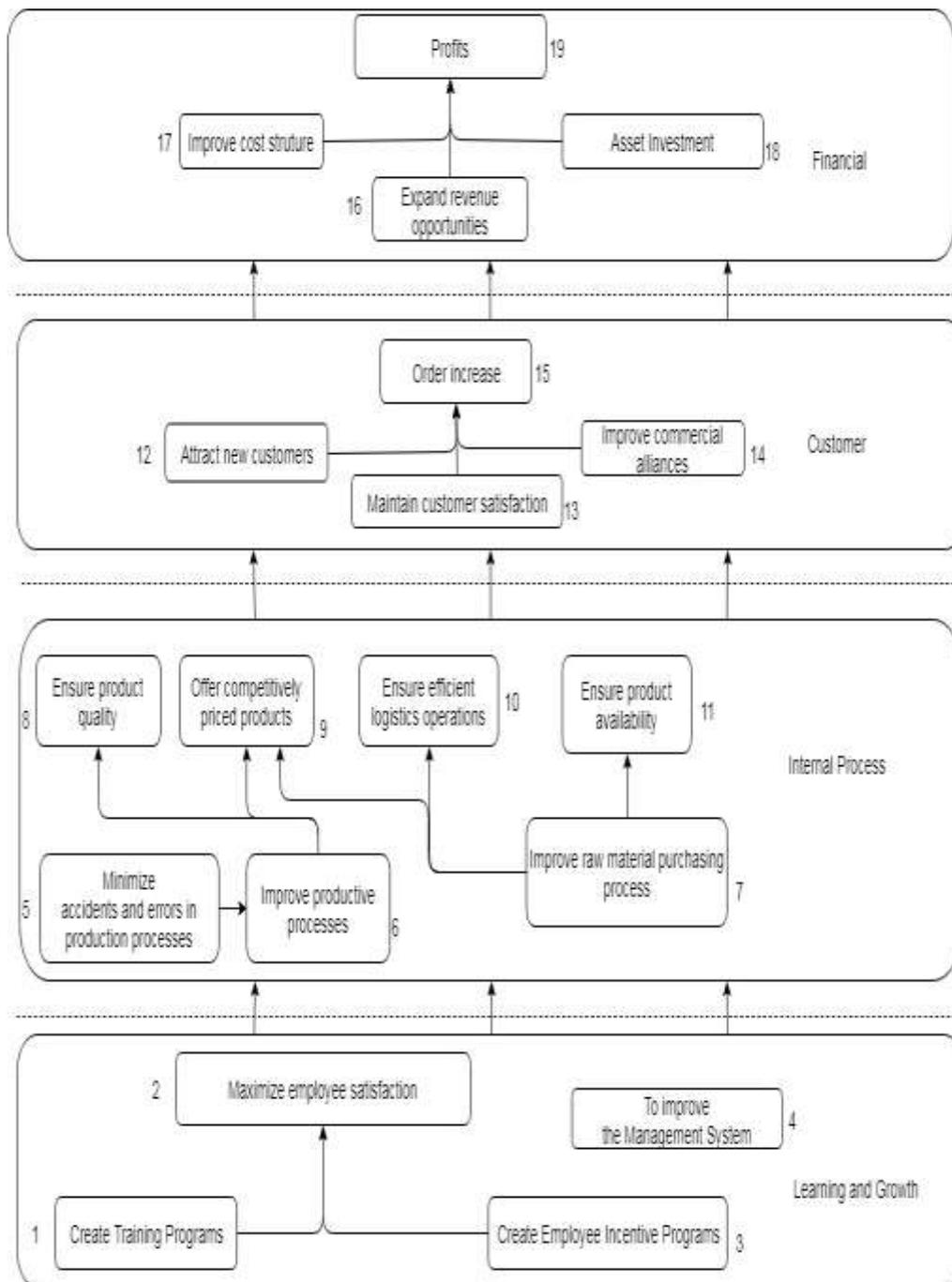


Figure1–Strategy Map Rondônia-Agroindustry’s

V. FINAL CONSIDERATIONS

The research made it possible to understand that the rice processing industries of Rondônia-Brazil still have incipient management practices based on information systems and / or performance monitoring tools. There is a lack of consensus on the use of indicators to monitor business performance, and for decision-making. Managers, especially small businesses, often rely on tradition and their own cognitive ability to conduct their strategies. In medium-sized companies, managerial practices are

more robust. The managers use information systems mainly to control production, both in procedural and financial aspects. Medium-sized managers demonstrate greater initiatives in using indicators, especially in the area of suppliers and human resources. From a customer perspective, there was a consensus that there is no need to monitor customer satisfaction, given that its brands is inserted in retail and already have continuous demand, forcing their customers to keep their brands in the gondolas. However, the managers pointed out some

important requirements that their customers need, such as product availability and agility in delivery. Through the interviews, it was possible to propose a strategic map with sixteen strategic objectives, divided into four perspectives of the Balanced Scorecard. Although the map contained the traditional financial objectives, the main contribution was related to the perspectives: clients, processes, learning, and growth, which synthesized the main strategic non-financial elements and that the managers did not give relevance.

Finally, the research leaves a gap to be explored; the subject must be widely discussed and improved, especially in regions that have the greatest potential for economic development in agribusiness. For future studies, it is suggested to deepen the design and conduct interviews with agribusiness managers from other segments, in order to know which decision support resources the agribusiness industries need to propose a web platform of monitoring of performance.

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