

Use of Balanced Scorecard in Cooperatives

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Abstract— The cooperatives have some particularities connected to their principles, including the issue of self-management. Through self-management it is defined that the members themselves, who are the “owners” of the cooperative, perform the management of the same. Strategic management, which plans the future and monitors results, is an important tool for the success of cooperative organizations. In this context, the Balanced Scorecard (BSC) has proven to be a useful tool for planning and monitoring financial and non-financial indicators. In the article, a systematic review was performed to verify the application of the Balanced Scorecard in cooperatives. The aim of the study was to conduct a theoretical analysis of the scientific discussion about the application of BSC in cooperative organizations. The result found in the 13 articles studied shows that it's possible and useful to apply BSC in cooperatives. Despite the success of the application, the number of articles on the subject can be considered small, and nothing specific was found to evaluate specific indexes of cooperativism, being something to be analyzed as a current limitation of the tool for use in cooperatives.

Keywords— *Balanced Scorecard, Strategic management, Cooperative.*

I. INTRODUCTION

Cooperativism is a social movement that unites people with common goals. Its main function is to gain strength, to achieve results that would be impossible individually. In Brazil there are currently about 6,828 cooperatives, bringing together 14.6 million members. These cooperatives employ 425.3 thousand people, being a sector of strong representation in the economy of the country. The cooperatives collected to the public coffers in 2018 a total of R\$ 7 billion in tributes, and injected more than R\$ 9 billion into the economy with the payment of salaries and benefits to employees (OCB, 2019a). Cooperatives have been seen as a form of economic development of territories, including helping some countries to overcome the crisis. These companies provide jobs and create well-being (ALFONSO; CUMPLIDO; GONZÁLEZ, 2016; JIMÉNEZ; STRANO, 2018).

One of the characteristics of cooperativism is that the members are the administrators. Within cooperatives there is the self-management process, which can be understood as a management process that involves social, political and economic criteria, seeking to eliminate the hierarchy of labor relations and arbitrary decisions (SANTOS, 2012).

Just as any organization is necessary the planning and control of activities to achieve the proposed objectives. However, the cooperative has a pluridimensionality, It's necessary to examine it not only on the basis of economic indicators, but also on a social basis, including issues related to the degree of cooperation (PINHO, 1982).

The Balanced Scorecard (BSC) is a planning and control tool designed to evade traditional financial measures. Its creators sought to unite financial and nonfinancial measures, providing multi-item planning within an organization that can be easily monitored by all involved. Since its inception BSC has been widespread around the world, but its use isn't as intense in cooperative organizations (KAPLAN; NORTON, 1997).

A study of 114 articles published on BSC in 20 years realized the great use and importance of the tool. However, this study does not show the number of articles applied to cooperatives (HOQUE, 2013).

Given this, a great similarity is perceived between what cooperatives need for their management, and the objective of the BSC tool. The aim of this study is to conduct a theoretical analysis of the scientific discussion on the application of BSC in cooperatives.

II. THEORETICAL REFERENCE

2.1 Cooperativism

Cooperatives are organizations where a group of people come together for common ends. The basic idea of these ventures is to gain strength and competence to overcome together what would be very difficult individually (CORNELIAN, 2006). To the International Co-operative Alliance-ACI (2019) "A cooperative is an autonomous association of people voluntarily united to meet their common economic, social and cultural needs

and aspirations through a democratically controlled and jointly owned organization."

Cooperatives aim to supply their members with goods and services and to carry out educational and social programs. According to the author, the cooperatives are based on the "Rochdale Pioneers Principles", which are: free membership, democratic management, fair interest on capital, proportional return on operations, transactions and money, political, religious and ethnic neutrality, and educational development. Cooperatives have a distinctive feature, which is to realize the interests of all people through a company with certain values and principles. And these principles that shape cooperatives (CHARTERINA, 2015).

The branches of cooperativism aren't a consensus in the literature, therefore, are considered the branches presented by the Organization of Cooperatives of Brazil (OCB), which are 13: Farming, Consumption, Credit, Educational, Special, Infrastructure, Housing, Production, Mineral, Work, Health, Tourism and Leisure, Transportation (OCB, 2019b).

The management of the cooperatives is democratic and free, the members choose the representatives and give them the decision-making power to manage society through accountability. Each member is entitled to only one vote, he may have more than one quota, but the vote is for uniqueness. Self-management can be considered a characteristic of cooperatives, as it is the members themselves who run the organization. While this is a gain, it can be a challenge. Besides the issue of self-management there is still the fact that the cooperative doesn't have the financial purpose of profit. Based on this it's important to remember that management need not only monitor economic indicators, but also social indicators. These indicators are to verify economic health and also health as an association of people, trying to demonstrate, for example, the solidarity of members in the company's activities, the degree of equity practiced in the cooperative, the importance attached to the democratic participation of members, their educational background, and indices that demonstrate the social impact of the cooperative, such as total employees and their distribution, salaries, impact of cooperative activities on their environment (PINHO, 1982).

2.2 Balanced Scorecard

BSC arose from the need for creators, Kaplan and Norton, to escape the traditional accounting model that prioritizes financial factors. According to the authors, the management process based on periodic financial reports no longer meets the needs of today's companies, requiring

adaptation to cover other factors, such as valuation of intangible and intellectual assets. BSC tries to balance financial measures and organizational performance measures, becoming a management tool, not just of measures, adopted by many companies as a philosophy (KAPLAN, NORTON, 1997).

Companies that have been using BSC successfully, as a strategic management system to manage long-term strategy follow 5 principles: translate strategy into operational terms; align organization with strategy; turn strategy into everyone's task; convert strategy into continuous process and; mobilize change through executive leadership (KAPLAN; NORTON, 2000).

The Balanced Scorecard has 4 perspectives, which balance the short and long term objectives, the results obtained and the performance vectors of these results, the objective and subjective measures. The perspectives are financial, customer, internal business processes, learning and growth (KAPLAN; NORTON, 1997).

Financial objectives focus on the objectives and measures of other BSC perspectives. The use of financial measures is important as it may be the link between the other perspectives. Every measure selected for a scorecard must be part of a chain of cause and effect relationships that will ultimately result in financial objectives.

The customer perspective allows the company to align its customer-related outcome measures with specific customer segments and markets. Today's companies should be aware that if they don't align with customer preferences, their market will be taken over by competition (KAPLAN; NORTON, 1997).

Considered a third step, the internal process perspective is developed by defining a complete value chain, focusing on 3 main processes: innovation, operations and after sales services (KAPLAN; NORTON, 1997).

Learning and growth perspective objectives provide the infrastructure that makes it possible to achieve ambitious goals in the other three perspectives.

The perspectives were built on the basis of the balanced scorecard and, according to the authors, should not be a "straitjacket", that is, if the company presents another type of need not considered in these 4 perspectives, it can adapt (KAPLAN; NORTON, 1997).

Through extensive literature review and analysis of empirical studies, Quesado, Guzmán and Rodrigues (2018) were able to list numerous advantages and benefits of BSC implementation. The conclusion was that BSC is more than just a performance evaluation system. It is a strategic management tool that clarifies and translates

organizational strategy, facilitating communication, alignment and learning.

III. METHODOLOGY

A systematic review was used to analyze the scientific production on Balanced Scorecard applied to cooperatives. Systematic review is a means to identify, evaluate and interpret available researchs relevant to a particular research problem (KITCHENHAM; CHARTERS, 2007).

It's possible through systematic review to know the topics already researched and the research gaps, mapping existing knowledge.

The objective was to analyze if the BSC can be applied in cooperative organizations, how it was done and what are the gains and difficulties. For this, we searched the Web of Science, Scopus and Spell databases, searching for articles from the creation of the tool until 2018. The choice of terms was based on the intended context. First term searched was "balanced scorecard" plus the word cooperative (or cooperativa) in order to verify what the authors have researched on the subject. The languages searched were Portuguese, Spanish and English. Only free articles were considered.

For reading and analysis of the research remained 20 articles. After understanding the articles, 7 were eliminated for not talking about the application or evolution of the balanced scorecard in cooperative organizations. The analysis is therefore based on 13 articles, published in Spanish, English or Portuguese, dealing with the importance or application of the balanced scorecard in cooperatives.

IV. RESULTS AND DISCUSSION

Only articles with the characteristics chosen from 2009 were found, which shows that it was slow to study the application of BSC in cooperatives, considering that the BSC was created in 1992. The number of publications per year doesn't follow any kind of trend or standard as shown in table 1.

Table 1: Articles published per year

Year	Number of publications	% Accumulated
2009	1	7,69
2010	1	15,38
2013	3	38,46
2014	1	46,15
2015	2	61,54
2016	2	76,92
2018	3	100,00
Total	13	

The number of authors of articles varies between 1 and 4, but the highest concentration of articles is with the maximum number of 4 authors, as shown in table 2.

Regarding the language Portuguese is the leader with 10 articles, 3 more in English. No articles in Spanish were found.

Table 2 –Number of authors per article

Number of authors	Number of articles	Accumulated (%)
1	2	15,38
2	3	38,46
3	3	61,54
4	5	100,00
TOTAL	13	

The country with the most articles published was Brazil with 10 articles, 1 published in the United States, 1 in Turkey and 1 in the United Kingdom. The application of the work was done in Brazil, France, Russia and Turkey, according to table 3.

Table 3 –Countries of publication and application of articles

Country	Publication	Application
Brasil	10	10
Estados Unidos	1	0
Reino Unido	1	0
Turquia	1	1
Rússia	0	1
França	0	1
TOTAL	13	13

Regarding the branch of cooperativism, articles were found in 6 different branches, as shown in table 4.

Table 4. Number of articles by branch of cooperativism

Branch	Quantity of articles
Farming	4
Credit	4
Consumption	2
Health	1
Work	1
Transport	1
TOTAL	13

The largest number of BSC applications is concentrated in farming and credit cooperatives with 4 articles each, followed by the consumer branch with 2 articles.

Regarding what was covered in each article, the application of BSC was generally successful, or considered important and useful, as shown in board 1.

Board 1 – Main finding of articles

Article	Main finding
1	The criation of model uniting BSC and System Dynamics. The developed model allowed a better understanding of the relations between research and agricultural production, thus facilitating the process of analysis and decision of new investments in research by the managers and analysts of the farming cooperative under study (PROTIL et al. 2009).
2	Satisfaction assessment of members with BSC support. It was possible to evaluate satisfaction and to carry out an improvement plan (FERREIRA, 2010).
3	Verification if the performance appraisal methods in 2010 similar to GECON or BSC. The results showed that the managers of the institution use concepts from both models in the performance evaluation, but that this use was instinctive, as they demonstrated not knowing the institutionalized use of the models (MARTINS et al., 2013).
4	BSC was used to assess internal and external customer satisfaction. It was possible to apply and propose improvements in management (DINIZ et al., 2013).
5	Analysis of performance measures from customers perspective, considered most important by the cooperative. Realized the importance of customer proximity to ensure customer satisfaction (GARCIA et al., 2013).
6	The use of performance measures makes it possible to translate organizational strategies at the operational level and that their performance is in line with that established by the cooperative. The adoption of the Balanced Scorecard made it possible to correct discrepancies between business units (BEUREN; SALLA, 2014).
7	The use of BSC was considered the most appropriate for developing and practicing business strategies (PRIZHIGALINSKAYA et al., 2015).
8	BSC is a form of performance appraisal usable in cooperative entities that have full definition of their long term strategy and forward thinking (PECH et al., 2015)

9	It was possible to measure the results of the cooperative, allowing to evaluate the effectiveness of management and its sustainability (OLIVEIRA; GIROLETTI, 2016).
10	BSC is a form of performance appraisal usable in the cooperative and provides a broad view of the company's strategic control. It allows managers to broaden control over organizational performance, since from the annual strategic planning restructuring analysis, one can propose more strategies that can improve the proposed BSC framework (BRIZOLLA et al., 2016).
11	The use of BSC contributes to the identification of strategies and definition of objectives and goals to be achieved, as well as translating these objectives into initiatives, facilitating decision-making and internal process management (Kruger et al., 2018).
12	Cooperative members can identify their situation and use the proposed methodology to formalize a cooperative improvement management project (JEANNEAUX et al., 2018).
13	The importance of the learning and development dimension was verified (BALABAN; FASAL, 2018).

In all articles studied, it was concluded that the implementation of BSC is useful for the management of the Cooperative. In some cases, BSC was used in conjunction with other methodologies, but in neither case was the application interrupted or impossible. In some situations difficulties have arisen, but whenever it can be circumvented.

Despite the success in applying BSC or part of it in cooperatives, it can be said that the number of articles on the subject is small. This can be a symptom of some items, such as: lack of professionalism in the management of cooperatives, difficulty in applying the tool, understanding that management tools are only for profit-seeking companies, among others.

Another item that was verified is the lack of search for social indicators and of cooperation, being a tool that doesn't contemplate all aspects provided for in a cooperative.

V. CONCLUSION

The study of 13 articles selected for the research showed the possibility of applying BSC in cooperative organizations. In all cases of application, it was realized the utility of the tool as a way to provide strategic planning and evaluate the performance of the organization. The low

number of articles shows the need to study the subject further, analyzing the reasons for not using the tool. Another fact that highlights the lack of specific studies focused on cooperativism was that there were no studies relating BSC perspectives with the principles of cooperativism.

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