Monitoring and evaluation of relationship marketing initiatives in service companies: proposition of a multicriteria model for selecting indicators and metrics

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Abstract. With an attempting to fill the research gap concerning common metrics for advancing research in the field of relationship marketing, this paper aims to propose a conceptual model for monitoring and evaluating relationship marketing initiatives carried out by service companies, with the support of a hybrid multicriteria decision-making method. To demonstrate the applicability of this conceptual model in the context of a service company in Brazil, an empirical study focusing on a relationship marketing initiative of Light SESA was developed during the applied phase of the research. As main results, we can highlight the tool for selecting and hierarchizing indicators and respective metrics; and a consistent set of indicators, aiming at the continuous improvement of RM initiatives in service companies.

Keywords. Monitoring and evaluation; relationship marketing; service business; indicators and metrics; AHP-TOPSIS.

1. Introduction

The importance of common metrics for advancing social science theory and research has been discussed in recent years, focusing predominantly on how theory can inform measurement and on how common metrics can enlighten policy formulation. There has been also greater interest worldwide in measuring intangible concepts, such as subjective well-being, customer loyalty, or social networking, besides a growing trend to move from single indicators to indices and from a course of action to outputs, outcomes, and impacts [1;2].

The discipline of marketing has undergone significant changes, both in the academic field and in the practice of companies and organizations in general. From the perspective of a long-term vision in which relationships and strong ties between the organization and its clients and other stakeholders lead to mutual benefits, these changes have been occurring more specifically in the area of relationship marketing [3-6].

Grönroos [5] reinforces the importance of interactions in relationship marketing similarly to the product variable in a conventional marketing approach. Therefore, he suggests that the scope of the marketing discipline should be enlarged and proposes a new approach to measure the effectiveness of business relationship marketing initiatives, based on the promise theory [6] and the service-dominant logic [7;8]. In applications of measurement approaches in Social Sciences, Bohrnstedt [1, p.9] argues that “indicators often turn out to be determinants of the construct rather than just reflecting it. In some
cases, the assumption is that the indicators define the construct rather than the other way around. This is sometimes called a 'formative' as opposed to a 'reflective' model of index construction”.

The review of the literature covering the period from 1989 to 2019 indicated that academic studies focusing on the measurement of business relationship marketing initiatives’ performance are still scarce. With an attempting to fill the research gap concerning common metrics for advancing research on this field, we highlight in the present paper the relevance of developing a conceptual model for monitoring and evaluating the performance of relationship marketing programs of services, which combines well-known tools of monitoring and evaluation systems [9-11; 19-23] with a hybrid multicriteria decision making method [12-14]. The methodological approach here proposed has not yet been explored by researchers in the marketing area, which confers originality to work presented.

Considering the importance of monitoring and evaluation systems for the effective management of relationship marketing initiatives in service companies and the gap identified in the literature concerning this issue, the main question addressed in this paper is:

“How can service companies identify, propose, and validate indicators and metrics to integrate a monitoring and evaluation system for their programs of relationship marketing?”

The development of a conceptual model for monitoring and evaluating relationship marketing programs of diverse contexts of services is a very complex task. Though, if it is addressed to a sector or an activity, it may be something feasible, as is the case of this research, which focused on a distributor company in the electric power sector in Brazil.

This article is structured in six sections. Following this introduction, Section 2 briefly conceptualizes relationship marketing, reviews the approaches for measuring and evaluating programs; and discusses the potential application of hybrid multicriteria decision methods in the research context. Section 3 presents the adopted methodology. Section 4 introduces the conceptual model for defining and hierarchizing indicators and metrics, aligned with the objectives of the Program in focus. Section 5 demonstrates the applicability of the model through an empirical study carried out in a service company in Brazil, focusing on a relationship marketing initiative of Light SESA [15]. Finally, Section 6 synthesizes the concluding remarks and suggestions for future research works.

2. Theoretical background

The literature review and documentary analysis covering the period of 1998-2018 encompass the following themes: (i) relationship marketing; (ii) monitoring and evaluation systems designed for programs; and (iii) application of hybrid multicriteria decision-making method in the research context.

2.1. Relationship marketing: concept, typology, and critical factors of success

For this work, we adopted the definition of relationship marketing as proposed by Grönroos [4, p. 407]:

"Relationship marketing is a customer focus that permeates organizational functions and processes and is geared toward making promises through value proposition, enabling the fulfillment of individual expectations created by such promises, and fulfilling such expectations through support to customers' value-generating processes, thereby supporting value creation in the firm's as well as its customers' and other stakeholders' processes.

Relationship marketing encompasses several types of initiatives. Boundaries between the types of relationship marketing have been understood as not independent, nor mutually exclusive [3-6; 16-17]. Focusing particularly on relationship marketing of services, the main factor that determines the success of initiatives is their management system, including the definition of indicators and metrics to monitor and evaluate their progress and outputs. Another relevant factor refers to the quality requirements defined by their customers, which can converge or diverge from the services quality definitions established by the company. Convergence or divergence will depend on whether the focus of management is dominated by customers or by the company. The more the company concentrates on
technical issues and functional issues, the greater the gap between business and consumer views [4; 17].

2.2. Monitoring and evaluation systems: definition of indicators and metrics

A comparative analysis covering reference works in the field of monitoring and evaluation [9-11;18-23] was done during the exploratory phase of this work. We adopted the following definitions established by OECD/DAC:

“Monitoring is a continuing function that uses a systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds” [23, p.27].

“Evaluation is the systematic and objective assessment of an ongoing or completed project, Program, or policy, its design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, evaluation effectiveness, impact, and sustainability” [23, p.21].

Monitoring and evaluation are associated functions to collect data and report the findings on how well (or not) the initiative is performing, by using indicators and metrics. In turn, indicators are defined as: “Quantitative or qualitative factors or variables that provide a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor” [23, p.25].

2.3. Potential application of hybrid multicriteria decision methods in the research context

Considering the conceptualization of relationship marketing (RM) and critical factors related to the management of RM initiatives, and also the results from the literature review on multicriteria decision methods, the following methods were combined aiming at selecting and ranking indicators addressed to monitoring and evaluating RM initiatives, particularly those conducted by services companies. They are: (i) Analytical Hierarchy Process (AHP) for weighting the classification criteria applied to proposed indicators [12;13]; and (ii) Technique for Order Performance by Similarity to Ideal Solution (TOPSIS), that is based on the concept that the chosen alternative should have the shortest distance from the positive ideal solution (PIS) and the farthest from the negative ideal solution (NIS) [14].

3. Methodology

The methodology encompassed: (i) bibliographical research on articles published between 1999 and 2019 about the central research themes and selection of most relevant works; (ii) design of a logical framework to propose indicators and metrics for monitoring and evaluating RM initiatives; (iii) application of a hybrid decision support method – AHP for defining the weights of the classification criteria combined with the TOPSIS method for selecting and ranking the proposed indicators; and (iv) demonstration of the applicability of the conceptual model in the context of a service company throughout an empirical study focusing on a relationship marketing initiative of Light SESA. This initiative called “Cliente Light Tem Mais” (“Light Customer Gets More”) was created on December 2012 by the Light SESA Commercial Area, with the prospect of reducing the default index and improving the customers' satisfaction rates [15].

4. Description of the conceptual model for monitoring and evaluating RM initiatives in services companies

Based on the theoretical background that founded this work and considering the characteristics of initiatives of relationship marketing of services a conceptual model was developed to help services companies to evaluate their programs of relationship marketing and identify critical issues and opportunities for improvement to achieve their objectives and targets.

As a result, the proposed model for monitoring and evaluating a business RM initiative carried out by a service company comprises seven stages, as depicted in Figure 1.
Figure 1. Proposed model for monitoring and evaluating a business RM initiative in company services

4.1. Step 1: Building the logical framework of a business RM initiative in a service company
The concept of logical framework of programs was defined and disseminated by McLaughlin and Jordan [9] and the W. K. Kellogg Foundation [10], which combined basic elements of the ‘Objective-oriented Project Planning’, also known as ZOPP [24] and situational strategic planning.

Table 1 presents a basic scheme for building the logical framework of a RM initiative for service companies, from the perspective of defining indicators and metrics to be used according to previously established temporal horizons.

| Hierarchy of objectives of the RM initiative | Objectives of the RM initiative | Actions | Expected outputs and outcomes | Indicators | Metrics |
|-----------------------------------------------|---------------------------------|---------|--------------------------------|------------|---------|
| Short-term objectives                         |                                 |         |                                |            |         |
| Medium-term objectives                        |                                 |         |                                |            |         |
| Long-term objectives                          |                                 |         |                                |            |         |

4.2. Step 2: Identifying stakeholders interested in the RM initiative outputs and outcomes
The broad definition of a stakeholder is any person or group that can influence or is influenced by a business organization (and its activities). The close and direct connection of the service company with its stakeholders contributes to the success of a service business RM initiative.

The main stakeholders interested in the RM initiative outputs and outcomes are (i) customers; (ii) strategic partners; (iii) suppliers; (iv) workforce of the company; and (v) governmental bodies. For this step, the adoption of concepts from the stakeholder theory [25] is strongly recommended.

4.3. Step 3: Definition and classification of indicators and metrics
For the definition and classification of indicators and metrics for evaluating the performance of a business RM initiative in a service company the following taxonomy of indicators should be adopted: (i) key indicators, which express the most relevant concept or dimension of the Program's objectives and temporal targets; (ii) complementary indicators expressing both the most relevant dimension and the other dimensions considered in the Program's objectives; and (iii) specific indicators defined to meet particular needs of individual stakeholders concerning outputs or results of the RM initiative, if the types of previous indicators do not meet these needs.

4.4. Step 4: Definition of criteria for selecting and hierarchizing indicators and metrics
In this step, the criteria for selecting and hierarchizing indicators and metrics for the RM initiative should be defined as recommended in [26].

4.5. Step 5: Construction and fulfillment of the quantitative evaluation matrix of indicators and metrics
In this step, objective criteria are employed for selecting and hierarchizing proposed indicators, as described in step 4. The quantitative evaluation matrix is a management tool used for evaluating alternative indicators proposed in step 3 and determining the relative relevance of them according to their level of compliance with the classificatory criteria.

The application of the analytical hierarchy process (AHP) method aims to assign weights to the classificatory criteria, with the participation of invited experts [12;13]. The use of the TOPSIS method refers to the hierarchization of selected indicators, based on the concept that the chosen alternative should have the shortest distance from the positive ideal solution (PIS) and the farthest from the negative ideal solution (NIS) [14]. So, the hybrid multicriteria method (AHP-TOPSIS) integrated to the conceptual model allows the indicators to be organized in the form of a ranking in descending order, according to the classificatory criteria defined in step 4.

4.6 Step 6: Final analysis of hierarchized indicators and metrics by corporate managers of the RM initiative

Step 6 refers to the managerial analysis of the indicators and metrics, already hierarchized with support of AHP-TOPSIS in step 5. Here, final qualitative verification of the conformity and relevance of the indicators is conducted, adopting the checklist suggested by [26]. The checklist can be applied either fully or partially, depending on the RM initiative. Due to the responses obtained, it is possible to identify the need to evaluate the relevance of the selected indicators or even to revise the logical framework of the initiative (turning to step 1).

4.7. Step 7: Elaboration of the identity charts for all selected indicators and their metrics

In this step, an identity chart for defining indicators’ specifications in a standardized way should be elaborated according to reference guidelines in the field of monitoring and evaluation [21;22;26]. During the fulfillment of the identity charts (one for each indicator), it is important to explicit the alignment of indicators with one or more objectives of the RM initiative. Indicators’ specifications include relevant information and metrics organized in a one-page form, as detailed by Meneses [27].

5. Demonstration of the applicability of the model: an empirical study focusing on a relationship marketing initiative of Light SESA

During the period from March to August 2017, six meetings were held, in which the proposed model was tailored to the Program “Cliente Light Tem Mais”, and managerially validated by its team and invited experts from PUC-Rio and the commercial area of Light SESA. Due to space limitations, the results of the empirical study are partially presented in this section. Nevertheless, the detailed description of the conceptual model and all results of the empirical study are published in the first author’s MSc. Dissertation, on which this paper was based [27].

The result of step 1 was the logical framework of the Program “Cliente Light Tem Mais”, according to the concepts defined in [9;10] and fulfilling the basic scheme shown in Table 1. The logical framework of the Program was split into the two phases of its implementation, namely:

- Phase 1 (2012-2017): Discounts in partner companies from different sectors for customers (residential - low voltage), without systematic accumulation of points;
- Phase 2 (2018- towards): Discounts in partner companies from different sectors for customers (residential - low voltage), according to the accumulation and redemption of accumulated points.

Step 2 yielded the mapping of the following stakeholders and their interests concerning the Program outputs and results:

- Light SESA: reduction of default indexes and improvement of customer satisfaction according to surveys conducted by the Brazilian Electricity Regulatory Agency (Aneel, acronym in Portuguese), and the Brazilian Association of Electric Power Distributors (Abradee, acronym in Portuguese);
Partner companies from various sectors: increase of customer base and revenues concerning the sale of goods and services to customers participating in the Program “Cliente Light Tem Mais”;
Consumers: obtaining discounts in 1,500 partner companies from various sectors and reducing the value of the monthly bills of electricity supply.

Next, step 3 defined and classified a set of 25 indicators for the Program “Cliente Light Tem Mais”, being seven key indicators; 12 complementary; and six specific ones. By way of illustration, Table 2 shows the indicators classified as key for monitoring and evaluating the Program.

Table 2. Proposed key indicators and metrics for the Program “Cliente Light Tem Mais”

| Reference | Key Indicators                                                                 | Metrics                                                                                       |
|-----------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| CDp       | Rate of customer default (residential – low voltage)                          | Number of defaulting customers (residential - low voltage) in the month /total of customers (residential - low voltage) in the month [%] |
| BP1       | Growth rate of the base of partner companies (per year) – Phase 1               | Number of partner companies with higher sales indexes concerning participants of the Program by sector in month /total of partner companies per sector in month [%] – Phase 1 |
| CP1       | Growth rate of the number of customers participating in the Program – Phase 1   | Number of customers participating in the Program in the month N - number of customers participating in month N-1)/number of customers registered in month N-1 [%] – Phase 1 |
| BP2       | Growth rate of the base of partner companies (per year) – Phase 2               | Number of partner companies with higher sales indexes concerning participants of the Program by sector in month /total of partner companies per sector in month [%] – Phase 2 |
| CP2       | Growth rate of the number of customers participating in the Program – Phase 2   | Number of customers participating in the Program in the month N - number of customers participating in month N-1)/number of customers registered in month N-1 [%] – Phase 2 |
| SP2       | Sales by partner companies concerning the customers registered in the Program (per partner company, per month) – Phase2 | Sales ($) concerning customers registered in the Program in the month N - Sales ($) concerning customers registered in the Program in month N-1)/Sales ($) concerning customers registered in the Program in month N-1 [%] – Phase2 |
| DBp       | Growth rate of discounts granted on monthly bills of electric power supply (total per month) | Total discounts granted on monthly bills of electric power supply ($) in month N - monthly bills of electric power supply ($) in month N-1/total discounts granted on monthly bills of electric power supply ($) in month N-1 [%] |

Note*: XX1 – indicators linked to objectives of Phase 1 of the Program; XX2 – indicators linked to of Phase 2 of the Program; 
and XXp – indicators linked to permanent objectives of the Program.

As recommended in [26], Step 4 defined the following criteria for selecting and hierarchizing indicators and metrics, being the first four eliminatory criteria, and the other classificatory ones. The criteria are: (i) representativeness of the indicator in relation to the program objectives; (ii) meeting the information needs of stakeholders; (iii) measurability; (iv) traceability; (v) simplicity and good understanding; (vi) reliability of data sources; (vii) availability when the information is needed; and (ix) desired time-scale adherence (see detailed description of criteria in [27]).

Step 5 focused on the construction and fulfillment of the quantitative evaluation matrix of indicators for the Program “Cliente Light Tem Mais”. In this step, the team representatives and invited experts employed the hybrid multicriteria method (AHP-TOPSIS) for selecting top indicators and metrics that should integrate the model. The AHP method was used to define the criteria weights, and the TOPSIS method for the final ranking associated to the degree of compliance of the indicators proposed to the decision criteria (by each phase of the Program). Step-by-step results can be accessed in Meneses [27].

In response to the main question of this empirical study, the application of the conceptual model in the context of the Light SESA Program allowed to define in Step 6 a set of 25 indicators, two of which being indicators directly associated with permanent objectives of the Program; 10 indicators regarding the monitoring and evaluation of the outputs and results of the Phase 1; and 13 indicators referring to outputs and outcomes of Phase 2, initiated in 2018.
Finally, Step 7 introduced an identity chart for defining indicators’ specifications in a standardized way, making explicit relationships between indicators and the program objectives, targets, and actions [27].

6. Final remarks and recommendations

In this paper, an attempt was made to demonstrate the applicability of a conceptual model developed for monitoring and evaluating RM initiatives in services companies. During the period from March to August 2017, six meetings were held in Light SESA, in which the proposed model was tailored to the Program “Cliente Light Tem Mais”, and managerially validated by its team and invited experts from PUC-Rio and the commercial area of this company. A set of 25 indicators could be objectively proposed, being two indicators directly associated with permanent objectives of the Program; 10 indicators regarding outputs and results of Phase 1; and 13 indicators referring to outputs and results of Phase 2, initiated in 2018.

A positive acceptance of the proposed model could be observed in an operational context (Light SESA) during the pilot experience focusing on the Program “Cliente Light Tem Mais”. The empirical results can be understood as pieces of evidence of the conceptual model application and tools’ usefulness and feasibility. However, there still may be limitations with respect to the generality of the findings, such as only one service business RM initiative was considered (pilot experience); the decision process did not include the use of logic fuzzy as initially planned by the authors. Nevertheless, the material developed for this pilot experience is suitable for later implementation in the Program “Cliente Light Tem Mais” and other RM initiatives conducted by service companies.

As suggested by Bohrnstedt [1], a set of 25 indicators for this Program were proposed in a ‘formative’ model of construction, defining the construct of RM initiative performance instead of just reflecting it.

For future research works and deepening of the results here presented, we propose:
• To apply the tools of construction of the logical framework and selection and hierarchization of indicators in other organizational contexts of service business RM initiatives and compare with those from Light SESA;
• To combine multicriteria decision-making methods with fuzzy logic, when business environments are characterized by uncertainty and complexity;
• To develop and apply impact assessment tools for service business RM initiatives concerning ex-post evaluation of their economic, social, and environmental impacts.

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