

20th EURO Working Group on Transportation Meeting, EWGT 2017, 4-6 September 2017,
Budapest, Hungary

Commercial actions management for railway companies

Ricardo García Ródenas^{a*}, José Carlos García García^a, María Luz López García^a

^a*Departamento de Matemáticas, Escuela Superior de Informática. Universidad de Castilla.-La Mancha. 13071 Ciudad Real, Spain*

Abstract

At the present moment, commercial actions management for railway companies is based on the so-called *railway passenger transport customer relationship management systems* (RPTCRMS). CRMs can be analyzed under 4 dimensions: i) Key customer focus, ii) Knowledge management, iii) CRM organization and iv) Technology-based CRM. This work analyzes a general RPTCRMS under the points of view i) and ii).

© 2017 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the 20th EURO Working Group on Transportation Meeting.

Keywords: Customer relationship management; railway passenger; marketing; big data; data mining

1. Introduction

Customer Relationship Management (CRM) is a business strategy for highly competitive business environment such as tourism, gas and electricity supply, internet services, banking, consultancy, health care, and so on. In most of the companies, the customer profitability follows 80:20 Pareto rule, where 20% of the customers offer the 80% of the profits. CRM systems wish to identify this group of customers in order to attract them, provide efficient, long-term value for them and retain them.

In past decades the Train Operating Companies (TOCs) do not record customer purchase history. Currently, with the new e-booking systems and the introduction of the competencies in railway markets have greatly increased the opportunities for creating successful CRM systems as a way to manage the travellers' relationship with TOCs.

The classic methods used in railway planning to decide commercial actions, railway operations, etc. work with aggregated demands. However, new analytical techniques such as big data and data mining allow CRMs to work at

* Corresponding author. Tel.: +34 926 29 53 00; ext: 6222.

E-mail address: ricardo.garcia@uclm.es

customer level, opening new CRM's functionalities which are becoming a pivotal management tools for TOCs.

The goal of this work is to propose a general structure for RPTCRMS and identify the most notable functionalities of these systems.

2. A view of railway passenger transport CRM system

An academic literature search on Scopus database[†] finds 4640 documents for the query "Customer Relationship Management", of which 337 are document type of *Reviews*. It shows the difficulty of introducing a conceptual framework to describe the whole applications on CRM systems. If we focused on the transportation field it is observed that a less attention has been paid. Moreover, the obtained results for the railway industry are negligible.

Winer et al. (2001) analyses the problems in data-base construction in CRM systems and proposes a classification based on the *type of customer iteration* and his *frequency*. For the first item, the categories of direct and indirect iteration can be distinguished and for the second one, high and low frequency in commercial transactions. The third dimension is the type of *commodity* produced by the company: services or goods. A roughly classification of companies, and thus CRMs, is obtained from these three items. The railway passenger transport CRM systems belong to the category of providing services in which the customers have an indirect high frequency iteration.

2.1. A general structure of railway passenger transport CRM system

Ngai et al. (2009) define *Customer Relationship Management (CRM)* as a set of processes and systems that support business strategy with the goal of establishing lasting and profitable relationships with the company's customers. However, there is no accepted definition of CRM in the literature. Therefore, it stands out from all possible definitions, that a CRM can be seen as a process of *acquisition* and *retention* of clients supported by business intelligence in order to maximize the value of the customer for the company.

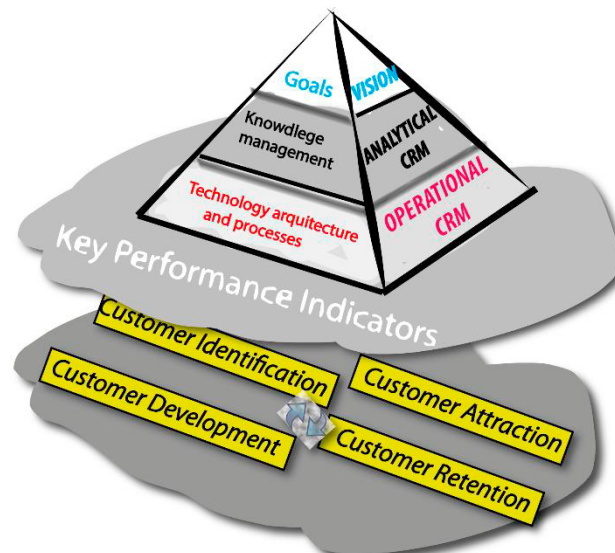


Fig. 1. Structure of CRM

Fig. 1 shows a CRM structure. A CRM is the tool (the pyramid) that implements a set of functionalities with the purpose of establishing relationships with customers and, in this way, to obtain a comprehensive understanding of them, thus increasing their value for the company. CRM, from an architecture standpoint, can have both an

[†] It is carried out at 3-3-2017

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات