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Procedia Economics and Finance 25 (2015) 14 – 25

Procedia Economics and Finance

www.elsevier.com/locate/procedia

16th Annual Conference on Finance and Accounting, ACFA Prague 2015, 29th May 2015

Customer Profitability Analysis and Customer Life Time Value Models: Portfolio Analysis

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Abstract

The financial performance of a company is evaluated by two models in the marketing and sale phase of business cycle: tactically oriented customer profitability analysis model (CPA) and strategically oriented customer lifetime value model (CLTV). The article builds on the author's paper Analysis of customer lifetime value model: Literature review by analyzing real data provided by a company which belongs to market leaders in its segment: customers' profitability, creditworthiness and payment performance of customers were analyzed between 2010 and 2014.
Results of the portfolio analyzes will be used in the future research which should build modified marketing models focused on the customer relationship and expand them by the risk factor of a customer's payment default and potential loss for a company driven by a customer's bankruptcy. Such a model will be tested on the provided data set.
We proved that the risk profile of customers was above the average (most of customers were classified as "high risk" customers). Furthermore, we confirmed that "one-off" customers were more reliable payers and were also more profitable for the company. Last but not least, we analyzed the "Kanthal effect" by Kaplan on the data set. We concluded that the profitability of customers varied significantly, but the most profitable group of customers (20 %) generated 104 % of the profits only.

Keywords: Customer Profitability Analysis (CPA); Customer Life Time Value (CLTV); Management Accounting; Portfolio analysis

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doi:10.1016/S2212-5671(15)00708-X

1. Introduction

The customer profitability and a business relationship between companies and their customers have been analyzed by companies and academics for decades. Comprehensive knowledge of customers or customer groups has the greatest impact on the financial performance of any company. It is important not only for marketing specialists, but most importantly for the top management of the company. In today's highly competitive world, a loss of a key customer might have a significant impact on the cash inflows of a company which might lead to a short-term cash flow issues, or even to a bankruptcy of the company. Fight for individual customers, either to attract new ones, or to keep the current customer base satisfied, has become a survival fight of each company.

This paper builds on the author's paper written in 2013 which summarized the already written literature related to the tactically oriented marketing model, Customer Profitability Analysis, and on the strategically oriented model, Customer Life Time Value.

The goal of this paper is to provide a detailed portfolio analysis of a customer base provided by a company active on the Czech market. We will provide answers to following questions:

- Is the risk profile of customers equally spread?
- Are "one-off" customers more profitable than "regular" customers?
- Are "one-off" customers better payers than "regular" customers?
- Is the "Kanthal effect" as described by Kaplan applicable on the data set?

The long-term goal of the research is to modify both marketing models focused on the customer relationship and expand them by the risk factor of a customer's paym ent default and potential loss for a company driven by a customer's bankruptcy. Such a model will be tested on the provided data set.

2. Literature review[1]

The so far written literature analyzed both marketing models focused on the customer relationship separately. The strategically oriented customer life time value (CLTV)[2] framework[3] was already introduced to the market in 1930s and thanks to the recent world financial crisis it became one of the top models in prediction of long-term customer relationship. The tactically oriented customer profitability analysis model (CPA)[4] analyzed customers profitability based on the historical data, especially, in the short-run.

CLTV framework

In the CLTV framework, the business relationship between a customer and a company can be divided into three phases: customer acquisition, retention and expansion.[5] There are two theoretical differentiable approaches for

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[1] The aim of this section was not to provide a detailed overview of literature written on Customer Profitability Analysis and Customer Life Time Value models as it would go beyond the purpose of this paper. The goal has been to summarize some key papers written on customer relationship management. It is up to a reader to broaden its knowledge by reading the related papers. More detailed overview of literature is mentioned e.g. in Čermák (2013).

2 It is generally defined as "*the present value of all future profits obtained from a customer over his or her life relationship with a firm*".(Gupta et al., 2006, p. 140). Berger and Nasr (1998, p. 18) mentioned another definition of CLTV which was defined by Kotler and Armstrong. They defined CLTV as an access of "*a person, household, or company whose revenues over time exceed, by an acceptable amount, the company costs of attracting, selling, and servicing that customer*".

[3] The strategic CLTV concept is based on the life cycle costing. A review summarizing published case studies of life cycle costing was written by Korpi and Ala-Risku (2008).

[4] CPA can be defined as „*the difference between the revenues earned from and the costs associated with a customer relationship during a specified period*" (Holm , Kumar , Rohde, 2011, p. 391)

[5] This classification was used by Gupta et al. (2006). These phases were analysed by e.g. Thomas (2001). A different classification of a long-term relationship between a customer and a company was mentioned by e.g. Šoljaková (2009).