

Customer retention and price matching: The AFPs case

Pedro Hidalgo^{*}, Enrique Manzur¹, Sergio Olavarrieta², Pablo Farías³

Business Department, School of Economic and Business, Universidad de Chile, Diagonal Paraguay 257, Santiago, Chile

Abstract

Understanding the long-term price matching effects on CLV is important in evaluating the effectiveness of these policies in stimulating customer retention. In industries with low brand differentiation and low customer involvement (e.g., private pension system), it can be seen that choosing a brand is based on inertia. The objective of this article is to analyze the convenience for the firm of improving customer retention, by matching the lowest price in the Chilean private pension system. Results suggest that matching the industry's price leader reduces the firm's CLV, thus diminishing firm incentives to make this marketing effort.

Keywords: AFP; CLV; Chilean pension system; Customer lifetime value; Customer retention; Price defectors

Since the 1960s, marketing reflects more of a customer-centered point of view (e.g., Kotler, 1967), shifting its emphasis from short-term transactions, to long-term relationships with clients (Rust, Lemon and Zeithaml, 2004). In fact, marketing must be seen as an investment (Srivastava, Shervani and Fahey, 1998) which improves brand perception (Simester, Hauser, Wernerfelt and Rust, 2000), leading to an increase in customer acquisition, retention and add-on selling. The aforementioned effects generate increases in Customer Lifetime Value (CLV), which increases firm value (Berger and Nasr, 1998; Blattberg et al., 2001; Rust et al., 2004). Because of this, decisions about precisely how much money to spend on each marketing effort become particularly important. Consequently, in marketing there is a need to develop models that focus on maximizing, rather than just measuring CLV.

Both marketing theory and practice generally recognize that customer loyalty is an essential asset in service industries (Keaveney, 1995). Indeed, evidence shows that loyalty is more

prevalent for services than for products (Bloemer and de Ruyter, 1999). Many studies emphasize the benefits of customer retention (e.g., Bendapudi and Berry, 1997; Johnson et al., 2001; Johnson and Selnes, 2004; Libai et al., 2002). Gupta et al., (2004) indicate that a 1% improvement in the customer retention rate improves firm value by 5%. Similarly, Reichheld and Sasser (1990) show that a 5% increase in customer retention increases a firm's profits at a range between 25% and 85%.

Price may be one of the most important determinants of customer decisions (Srivastava and Lurie, 2001). Managers could utilize price matching to stimulate repeat purchase behavior (reducing price defection), because price matching may indicate a commitment to protect customers (objective: to keep customers happy so they would come back and buy again). Nevertheless, previous research findings suggest that repeat (i.e., existing) customers focus less on price savings than new customers do (Reichheld and Sasser, 1990). Understanding long-term price matching effects on customers is important in order to determine whether price matching has a lasting impact on customer behavior that is evaluating the effectiveness of these policies in stimulating customer retention, in addition to customer acquisition (Kukar-Kinney, 2006).

Over the last few decades an important number of countries have been starting reform processes on their social security systems, changing from shared or common fund to individual

* Corresponding author. Tel.: +56 2 9783375.

E-mail addresses: phidalgo@unegocios.cl (P. Hidalgo), emanzur@unegocios.cl (E. Manzur), sergio.olavarrieta@udp.cl (S. Olavarrieta), pfarias@unegocios.cl (P. Farías).

¹ Tel.: +56 2 9783378.

² Tel.: +56 2 6762201.

³ Tel.: +56 2 9783378.

capitalization ones. Two of the main reasons for these reforms are: 1) falling birth rates, and 2) an increase in life expectancy, which are leading to a reduction in the worker/retiree ratio. Additionally, shared systems – which are usually government managed – are sometimes inefficient, because funds may be subject to reassignment in pursuit of different objectives. This is mainly due to political pressure (Berstein and Chumacero, 2005).

With the social security system reform in 1981, private companies known as AFPs (Administradoras de Fondos de Pensiones, Pension Fund Administrators) became the new system's operators, granting customers both the responsibility and the freedom to choose their AFP. Several countries are currently discussing possible reforms to their social security systems. Indeed, Diamond (2006) states that numerous US economists are considering reforms in Chile as a reference in order to structure individual pension fund accounts. Schieber and Shoven (1996), citing the experiences of Chile, claim that the seemingly successful reforms in Chile led many Latin American countries to apply similar reforms. Such is the case of Peru (1992), Argentina and Colombia (1993), Uruguay (1995), Mexico, Bolivia, and El Salvador (1996) and Nicaragua and the Dominican Republic (2001) (Olivares, 2006).

Pension funds defer current wages, and result in a part of the workforce's life cycle income being saved before it actually reaches the wage earner's hands. This reduces the obvious risk of this income being consumed rather than saved. However, individuals' awareness of their pension rights may be incomplete or underestimated due to uncertainty and illiquidity of pension funds equity (Feldstein, 1978; Pitelis, 1985). Moreover, an important feature of this industry is the mandatory nature of contributions (e.g., being forced to buy the service) along with the existence of government guarantees. These aspects might be explaining customers' lack of interest in pension fund products (Berstein and Chumacero, 2005). Consequently, the amount of information which customers manage is very low, as is their involvement regarding pension fund decisions.

Additionally, several service and extended service features AFPs may offer, like pension plans, information to be provided to customers and commissions (prices), are subject to regulation. In industries with low brand differentiation and low customer involvement (e.g., private pension system), it can be seen that brand choices respond to inertia (Assael, 1987, 2004).

Thus, this article specifically analyzes the firm convenience of improving customer retention rate by matching the lowest price in the Chilean private pension system.

1. The Chilean private pension system

In 1981, the Chilean private pension system began with the participation of twelve AFPs. By 2007, and as a result of mergers and acquisitions over the years, the number of AFPs in the Chilean pension system came down to six. These firms provide similar benefits (established by law), but there is some differentiation among them, mainly related to the price

(commission) charged, pension fund returns, number of branch offices located throughout the country, and customer service.

An AFP is a firm with the exclusive objective of managing a pension fund, along with the provision of all benefits and guarantees established by law. As a retribution for its services, the firm charges commissions (prices) to its customers in order to finance its activities. Table 1 indicates annual commissions (prices) charged by each of the six AFPs to a worker (customer) with an annually taxable income equivalent to the average taxable income of workers affiliated to each of the six AFPs.

AFPs presently charge both a variable commission (a percentage over taxable salaries), and a fixed commission (Castro, 2005). Given the fact that the AFPs are required (by regulation) to charge the same variable commission over taxable salary, and the same fixed commission to all of their customers, two customers with different salaries generate very different incomes for an AFP. For example, if a commission rate of 2.5% is applied to annual salaries of \$48,000 and \$6000, the AFP would annually collect from them \$1200 and \$150, respectively. Since service production costs do not vary proportionately between customers with different incomes, misalignment comes up between income and costs which makes it much more profitable for AFPs to capture high-income customers. Since this misalignment between income and costs is not approachable through price (commissions) changes, increasing incentives appear for competing in terms of commercial expenses, additional services and even gifts, which allow for customer discrimination among AFPs (Castro, 2005; Tarziján, 2005).

2. AFP switching

Pension system affiliation is mandatory as of January 1st, 1983, with automatic inclusion of workers entering the workforce for the first time after that date. Affiliation is exclusive, because even if a worker performs one or several, simultaneous or successive activities, the person must be affiliated to only one AFP. System affiliation is legally binding, and remains throughout the client's (affiliate's) entire life, whether they are working or not. However, the customer is always free to choose his or her AFP.

Table 1
Annual commission (US\$)

AFP	Annual taxable income	Commission		Annual commission	Surcharge (over Habitat)
		Fixed	Variable		
Bansander	\$9006	\$16.1	2.42%	\$234.0	\$25.7
Cuprum	\$12,078	\$0	2.48%	\$299.5	\$22.7
Habitat	\$7646	\$7.5	2.23%	\$178.0	–
Planvital	\$6253	\$16.1	2.55%	\$175.5	\$28.6
Provida	\$6373	\$0	2.39%	\$152.3	\$2.7
Santa María	\$7088	\$10.5	2.42%	\$182.0	\$16.5

Source: www.safp.cl.

Note: annual taxable income is based on the average of the previous three years (2003–2005).

The rate of exchange used is CH\$514.21 for US (observed on 12/31/2005).

The individual capitalization system with private administrators (AFPs) requires customers who are active regarding pension funds, in order to achieve effective competition between AFPs in such a way that prices (commissions) are equal to marginal costs, and returns for customers are the highest possible, while keeping risk as low as possible. However, the amount of information that customers manage is very low, as is their involvement with pension fund decisions. For example, affiliates do not understand the service, and are not even interested in understanding it (Berstein and Ruiz, 2005). Previous research shows that involvement leads to higher motivation, heightened arousal and increased cognitive elaborations (Mano and Oliver, 1993). Thus, the triggering of extensive evaluations for low involvement products is unlikely (Assael, 2004; Oliver and Bearden, 1983).

In addition, pension plans, information to be provided to customers, and prices (commissions) AFPs may offer, are subject to regulations. The underlying assumption in the establishment of such regulations is that agency problems require the implementation of mechanisms designed to ensure proper fund management. However, by protecting uninformed customers, regulation endangers differentiation and competition in prices and services (Berstein and Chumacero, 2005).

Given low brand differentiation and low customer involvement, it can be seen that choosing an AFP is based on inertia (Assael, 1987). This behavior is sometimes referred to as spurious loyalty because repetitive purchases may make it appear that the customer is loyal to the brand when actually no such loyalty exists (Assael, 2004). Customers do not exhaustively search for information nor do they evaluate attributes. Instead, customers are passive information receivers. For example, 97% of AFP customers are unaware of how much they pay their AFP in commissions, because these amounts are deducted automatically from their monthly salaries (Berstein and Castro, 2005).

Returns earned for AFP clients are not the only tool for encouraging customers to switch AFPs. Berstein and Ruiz (2005) show that 51.5% of clients who switch AFPs do so to an AFP with higher returns than the one they had before. Therefore, the remaining 48.5% of customers who switch to an AFP rendering higher returns indicates other reasons for the switch. Berstein and Castro (2005) show that other factors, unrelated to the product itself, are as important, or even more so, in motivating customers to switch AFPs (see Table 2).

Table 2
Reasons why customers switch AFPs

	April 2001	September 2004
Higher returns of the pension fund	18%	29%
Lower commissions (prices)	13%	15%
To help the sales representative	14%	11%
AFP image	9%	10%
Recommendation	14%	9%
Gift	20%	9%
Do not know/do not answer	12%	17%

Source: Berstein and Castro (2005).

Contact strategy takes on greater significance in some industry-based contexts, particularly for services with a continuous provision to affiliates (subscribers). Direct marketing by means of telephone contacts, e-mail or in person are common practices for industries such as life insurance, cable TV, credit cards and AFPs (Fried and Hidalgo, 1990). Generally speaking, these are products with which the customer, once a provider has been chosen, doesn't switch brands unless a specific action, which entails costs for both the firm (marketing effort) and the customer (e.g., psychological, financial costs), merits the switch (Venkatesan and Kumar, 2004).

Personal interactions constitute a pivotal aspect in services marketing (Crosby, Evans and Cowles, 1990; Gountas et al., 2007). For example, Fig. 1 reports that in this industry sales representatives play a fundamental role in the customer acquisition process (SAFP, 2002). Sales representatives' incomes are mainly based on salary percentages of customers who join the AFP. This means that commissions may be attractive enough for sales representatives to offer gifts and/or positive expressive displays (i.e., smiling, displaying friendliness, showing genuine concern for clients) to customers in order to acquire them. In this manner, customers do not consider price (commissions), returns and service when it comes to choosing an AFP, but rather the value of a gift and/or helping the sales representative (Berstein and Ruiz, 2005).

3. Study

In the analysis of the convenience for the firm of improving customer retention rates by matching the lowest price in the Chilean private pension system, the use of a Customer Lifetime Value (CLV) measurement, with and without price matching is particularly relevant. An important number of researchers also use the CLV (e.g., Blattberg et al., 2001; Bolton et al., 2004; Gupta and Lehmann, 2003; Gupta et al., 2004; Niraj et al., 2001; Reinartz and Kumar, 2003; Reinartz et al., 2005; Rust et al., 2004; Thomas, 2001), in various contexts. CLV is the present value of all future earnings a firm may generate from a customer (Berger and Nasr, 1998; Dwyer, 1997; Gupta and Lehmann, 2003). This analysis is similar to that of discounted cash flow, but with one difference; CLV incorporates the customer retention rate.

This article follows the method Gupta and Lehmann (2003) develop as a way of analyzing and measuring the customer lifetime value (CLV) of a firm via public data provided by the same. If used correctly, this tool may be useful as a guideline for strategic decision making for growth, and in evaluating measures such as mergers, acquisitions, market penetration, market development, etc. In addition, this method provides the ability to evaluate marketing efforts. For example, it may help a company to identify when will investing in the improvement of its current customer retention, or to acquire new clients, become profitable. Gupta and Lehmann (2003) define CLV (see Eq. (1)) as the result of an annual margin per customer (m) multiplied by the customer's probability of remaining with the company (annual customer retention rate, r) for each year (t), discounted at an annual rate (i). By using public data such as financial

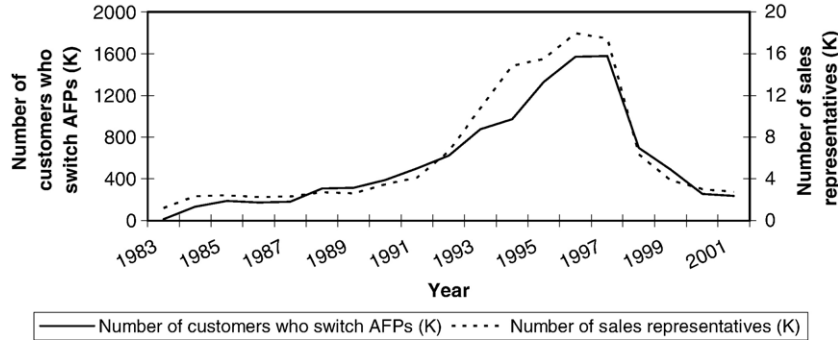


Fig. 1. Customers who switch AFPs and number of sales representatives (SAFP, 2002).

statements and using the methodology developed by Gupta and Lehmann (2003), CLVs are calculated for the six AFPs, with and without price (commission) matching of that the AFP with the lowest price, in this case, Habitat AFP. CLV calculations follow the assumptions used by Gupta and Lehmann (2003), which state that both the annual margin per customer (m) and the annual customer retention rate (r) are constant at all times, and projection length is infinite.

The annual margin per customer (m) is simply equal to the annual commission (see Table 1) minus total operating expenses, divided by the number of customers. The annual customer retention rate (r) is equal to the percentage of AFP customers (existing at the beginning of the year) who stay with the firm at the end of the year. Finally, the referential annual discount rate (i) is 12% (Gupta and Lehmann, 2003).

$$CLV_{\text{without}} = \sum_{t=1}^{\infty} \frac{m \cdot r^t}{(1+i)^t} = m \cdot \left(\frac{r}{1+i-r} \right) \quad (1)$$

$$CLV_{\text{with}} = \sum_{t=1}^{\infty} \frac{(m-s) \cdot (r + (1-r-d) \cdot sw)^t}{(1+i)^t} = (m-s) \cdot \left(\frac{r + (1-r-d) \cdot sw}{1+i - (r + (1-r-d) \cdot sw)} \right) \quad (2)$$

Given this, the analysis considers two scenarios: without (see Eq. (1)) and with (see Eq. (2)) the marketing effort of price matching. The scenario without the marketing effort (without) considers current margins (m) and customer retention rates (r). The second scenario (with) incorporates the commission (price) reduction the AFP must make (s) in order to match the lowest existing commission (price). Given the fact that 15% of customers who switch AFPs do so because of a lower commission (see Table 2), that is, they are price defectors, it would be correct to assume that 15% of customers ($sw=15\%$) who switch to another AFPs ($1-r-d$) will remain in the same AFP, since the incentive to switch AFPs disappears in the second scenario. The annual customer death rate (d) represents the percentage of AFP customers (existing at the beginning of the year) who die (for the product category) in the pension system during the year.

Thus, since an AFP reduces its commission (price) by an amount s in order to match that of the low-priced competitor (Habitat AFP), it is likely for that 15% of customers who would switch the AFP in the first scenario, and represent 15% of $1-r-d$ of the AFP's customers, to no longer have an incentive to switch to another AFP, thus increasing the annual customer retention rate up to $r+(1-r-d) \cdot 15\%$. If Cuprum AFP, for example, reduces its commissions (price) by \$22.7 in order to match Habitat AFP's price (see Table 1), the customers in that 15% who would leave the AFP in the first scenario, and represent 15% of 5.17% ($100\% - 93.4\% - 1.5\%$) of Cuprum AFP's total customer base, will no longer have an incentive to switch to another AFP, increasing the annual customer retention rate from 93.4% to 94.1% (see Table 3).

Results in Table 3 show that matching industry leader prices reduces a firm's CLV in all cases, therefore reducing firm incentives for making this marketing effort. The negative option value (see Eq. (3) and Table 3) may appear as a result of the inertia of AFP customers, since price (commission) only accounts for 15% of AFP switches (see Table 2), and also of a high customer retention rate, which is higher than the average of 80% found on Chilean and US firms (Olavarrieta et al., 2007; Reichheld, 1996).

$$\text{option value} = CLV_{\text{with}} - CLV_{\text{without}} \quad (3)$$

Additionally, computing of the minimum switching rate (sw_{min}) aims to equalize the CLV with price matching, to the CLV

Table 3
CLV & commission (price) matching (US\$)

AFP	m	s	r	d	CLV without	CLV with	option value	sw_{min}
Bansander	\$158.5	\$25.7	92.3%	2.8%	\$742.9	\$651.3	\$-91.6	55.7%
Cuprum	\$166.6	\$22.7	93.4%	1.5%	\$834.4	\$758.2	\$-76.3	41.9%
Habitat	\$114.6	-	95.5%	2.2%	-	\$663.8	-	-
Planvital	\$111.2	\$28.6	89.8%	6.2%	\$449.7	\$345.4	\$-104.2	120.8%
Provida	\$100.4	\$2.7	94.3%	3.1%	\$536.0	\$535.2	\$-0.8	15.9%
Santa María	\$113.2	\$16.5	92.9%	3.7%	\$549.1	\$485.0	\$-64.1	68.0%

Note: annual margin per customer (m), surcharge (s), annual customer retention rate (r) and annual customer death rate (d) are based on the average of the previous 3 years (2003–2005).

The rate of exchange used is CH\$514.21 for US (observed on 12/31/2005).

without it (option value=0) (see Eq. (4)). Results indicate that, with the exception of Provida AFP, the minimum switching rate necessary to compensate the margin drop that price matching causes, is largely over 40% (even reaching the limit rate of 100%), indicating that AFPs do not have incentives to reduce prices, but rather to increase them.

$$sw \min = \frac{r}{\left[\frac{m^*(1+i)}{s^*(1+i-r)} - 1 \right] * (1 - r - d)} \quad (4)$$

4. Discussion

For industries with low brand differentiation and low customer involvement, this article's results are highly interesting. In these industries, as is the case of the Chilean pension fund system, matching industry leader prices reduces a firm's CLV, thus reducing the firm's incentives for making this marketing effort. Given low brand differentiation and low customer involvement, it can be seen that a customer's AFP selection is based on inertia (Assael, 1987, 2004). Customers do not exhaustively search for information nor do they evaluate attributes. Instead, customers are passive information receivers. However, full understanding of customer post-purchase response to price matching, requires taking of various individual customer characteristics into account. For example, highly price-conscious customers should perceive high levels of price matching as more beneficial, and their repeat purchase behavior should be more strongly affected than that of less price-conscious customers (Kukar-Kinney, 2006). Furthermore, it may very well be that various bonds (e.g., default option, status quo), which act as switching barriers for customers, are what influences repeat purchasing behavior, instead of a mere preferential disposition (Liljander and Strandvik, 1997).

The level of involvement with the service that a customer has is likely to increase by means of making the service important to the customer (e.g., using perceived risk), linking it with his or her values or personal situations, or by accentuating personalized services and customer-oriented layouts and designs (Assael, 2004; Bloemer and de Ruyter, 1999; Conchar et al., 2004). Future research may focus on analyzing the effectiveness of these particular marketing efforts. Additionally, in the case of the Chilean pension fund system, analysis in terms of CLV is possible for assessing profitability of sales representatives, gifts, good service policies, or other marketing efforts.

Managers must keep in mind that managing CLV is not possible without proper measuring. Fortunately, Latin American managers are taking the principles and concepts of marketing into account, and are applying them even more completely and with greater enthusiasm than US practitioners (Griffin et al., 1998). Using internal company data, firms may easily measure CLV. In this study, some assumed simplifiers appear, such as the constant annual margin per customer and annual retention of customers, and the infinite projection length (Gupta and Lehmann, 2003), which firms could adjust for greater accuracy. Opportunities that the quantifying of customer lifetime value (CLV) generates are unlimited, and enable profitability quantification for each customer or segment,

making marketing efforts measurable, and appraisal of companies, mergers or acquisitions more accurate. It is also a more appropriate measure of performance (Rust et al., 2004). In addition, customer segmentation using CLV is possible; however, correct assignment of benefits and costs to each of the company's customers (or segments) is necessary. For example, some customers may produce losses for the company in terms of individual consumption. Nevertheless, the influence a customer exerts on other customers (word-of-mouth, reference groups), can make this customer someone whom it is profitable to satisfy. CLV also has limitations, such as difficulties in estimating changes in the environment, new competitors, substitutes, legal changes, etc. There could also be problems in accounting for word-of-mouth, and the effect of reference groups, network externalities, and brand reputation over the years. However, these difficulties are small in comparison to the great benefits that can be obtained from applying this model for measuring the effects of marketing efforts.

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