

RESEARCHES CONCERNING THE PROFITABILITY OF THE COMMUNITY PHARMACY WITHIN THE CONTEXT OF WORLD ECONOMIC AND FINANCIAL CRISIS

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Abstract

The paper contains researches concerning the economic outcomes of a community pharmacy's activity in the city of Sibiu (Romania) for a three-year period during the time ranging from January 1st 2007 – December 31st 2009. The evolution of break-even point has been analysed together with the factors which influenced it under the conditions of economic and financial crisis and measures for the profitability and the improvement of pharmacy's activity were proposed. The methods employed in research have been as follow: the method of break-even point, method of comparison, method of safety interval, retrospective analysis and logical analysis. The results of research have shown that the values of pharmacy's break-even point varied according to crisis aggravation. In 2007, the value of break-even point was positive, but between 2008 and 2009 it was negative. The main cause of this negative evolution was the non-reimbursement of medicines issued in health insurance system. The value of pharmacy's safety interval, calculated with the purpose of providing a forecast for the years 2010 and 2011, indicates the fact that the pharmacy should increase, in the coming period, its sales and thus invest the whole profit in re-establishing the financial balance. In this respect, there were proposed a wide range of measures and additional services which could lead to increases in turnover, to profit and a higher profitability rate.

Rezumat

Lucrarea conține cercetări privind rezultatele economice ale activității unei farmacii comunitare din orașul Sibiu, pe o perioadă de trei ani, în intervalul 1 ianuarie 2007 – 31 decembrie 2009. S-au analizat evoluția pragului de rentabilitate, factorii care l-au influențat în condițiile crizei economice și financiare și s-au propus măsuri pentru rentabilizarea și îmbunătățirea activității farmaciei. Metodele utilizate în cercetare au fost: metoda pragului de rentabilitate, metoda comparației, metoda intervalului de siguranță, analiza retrospectivă și analiza logică. Rezultatele cercetării au arătat că valorile pragului de rentabilitate al farmaciei au variat în corelație cu agravarea crizei. În anul 2007, valoarea pragului de rentabilitate a fost pozitivă, dar în anii 2008 și 2009 a fost negativă. Principala cauză a acestei evoluții negative a fost nedecontarea medicamentelor eliberate în cadrul sistemului de asigurări sociale de sănătate. Valoarea intervalului de siguranță al farmaciei, calculat cu scopul de a oferi o previziune pentru anii 2010 și 2011, indică faptul că farmacia va trebui ca în perioada următoare să crească vânzările și să investească întreg profitul pentru a reveni la echilibrul financiar. În acest scop, s-a realizat propunerea unei game

variate de măsuri și servicii suplimentare, care ar putea conduce la creșterea cifrei de afaceri, la obținerea unui profit și a unei rate de rentabilitate mai mare.

Keywords: pharmacy, management, marketing, profitability, legislation, economic and financial crisis.

Introduction

The break-even point indicates the point where pharmacy's expenses are equal to revenues. The break-even point represents the financial outcome of an activity, materialized in getting some revenues exceeding the expenses or, in strictly economic terms, represents the capacity of an enterprise to bring about profit. Under this break-even point, the economic unit is losing, above it, it has profit (it becomes profitable).

Establishing the break-even point is necessary for each economic unit as it allows establishing the level where business becomes profitable, it allows determining the amount of sales necessary to get a certain profit amount, it emphasizes the correlations between the dynamics of sales, respectively that of revenues and the dynamics of expenses level grouped in variable and fixed expenses and allows determining that level of revenues and profits for which profit is null [2].

Starting with 2008, worldwide, the crisis occurrence initiated disturbance in financial mechanisms, economic mechanisms, threatening to reach energy, and more recently, agricultural products [7]. Romania is more and more affected by this economic recession which is felt especially by small and medium-sized enterprises [4], among which pharmacies as well [1, 9, 12].

The purpose of this paper is to analyse the evolution of the community pharmacy, during a period of time in which economic and financial crisis leaves a significant mark on the Romanian economic and legal system, highlighting factors impacting the profitability of the pharmacy, providing possible solutions to make the activity more efficient, proposing ideas to diversify and improve the services offered by the pharmacy, which can lead to patient loyalty, increases in turnover and profitability.

Materials and Methods

Fixed expenses, variable expenses as well as the sales income of a community pharmacy in the city of Sibiu were analysed during a three-year period within the time range: January 1st 2007 – December 31st 2009. The data necessary for this study have been selected from accounting records and from pharmacy's management software ("Cont & Soft").

The methods employed in the research have been the following: the method of break-even point, logical analysis, retrospective analysis, method of comparison, method of safety interval. The method of break-even point (or the method of balance point) is a basic method to examine profitability, indicating the point where total expenses are equal to total cash collections achieved, respectively the situation in which no profit, no loss is recorded [3]. Safety interval method is a forecasting method concerning the economic status of a company in the coming period [2].

Results and Discussion

Pharmacy's break-even point was calculated as follows:

$$Pr = \frac{Pb}{V},$$

where:

Pr = break-even point;

Pb = gross profit;

V = sales [2].

The break-even point aims at outlining the point corresponding to the moment in which total expenses and cash collections are equal, as their difference should be equal to zero. If the company exceeds this point, the trading company will gain profit. The break-even point was calculated for each of the three studied years.

Table I

The break-even point of the examined pharmacy in the years 2007, 2008 and 2009

Studied years	2007	2008	2009
Gross profit (lei)	288696.54	-11614.72	-404150.76 (207757.39)
Sales (lei)	1807371.7	1889629.23	2719460.05
Break-even point	15.97	-0.61	-14.86 (7.63)

Table I presents the values for the pharmacy's gross profit (the difference between the pharmacy's total sales and expenses) and the values of the break-even point for each of the three studied years.

In the case of year 2009, the table shows both the values obtained corresponding to the late reimbursement of the medicines issued within the health insurance system (the values in black) and the values which have

been obtained if the money due to the pharmacy by the Health Insurance House would have been reimbursed within 30 days as before the occurrence of economic crisis (values in brackets).

The results obtained outline the progressive decrease of profit and of break-even point from 15.97 in 2007, to -0.61 in 2008 and respectively -14.86 in 2009. In the case of year 2009, the break-even point would have been 7.6 if the pharmacy had received the money owed by the Health Insurance House. In spite of all these, as compared to year 2007, the value of 7.6 above the break-even point for the year 2009, is reduced to half, the difference of profit being 80939.15 lei, though the sales of 2009 are 1.5 times higher than those of 2007. In this specific case, the pharmacy's variable expenses were taken into account, which were constantly increasing and, thus, they diminished the difference between these and cash collections, bringing about a poorer result than in 2007.

The results obtained for the pharmacy's break-even point in the years 2007, 2008 and 2009 were centralized and are presented in the form of a synthesis in the Figures 1 and 2.

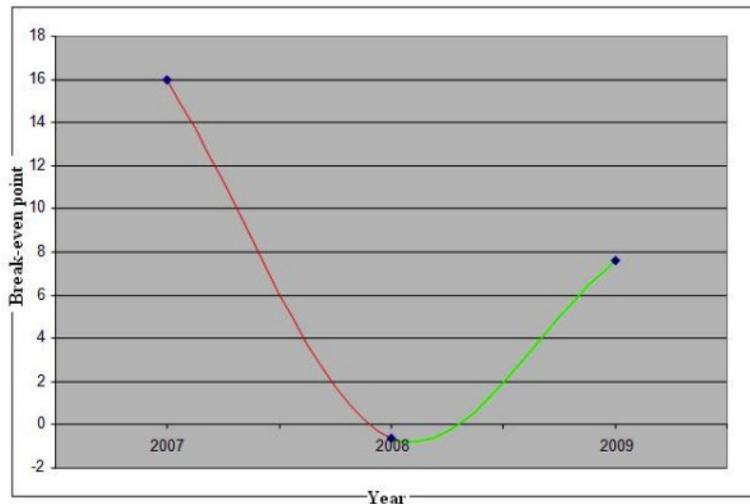


Figure 1.

Forecast evolution of break-even point in the years 2007, 2008 and 2009

Figure 1 presents the evolution of break-even point for the three examined years in the event that the pharmacy would have been refunded the money for reimbursed medicines and such delayed payments by the Health Insurance House would not have occurred.

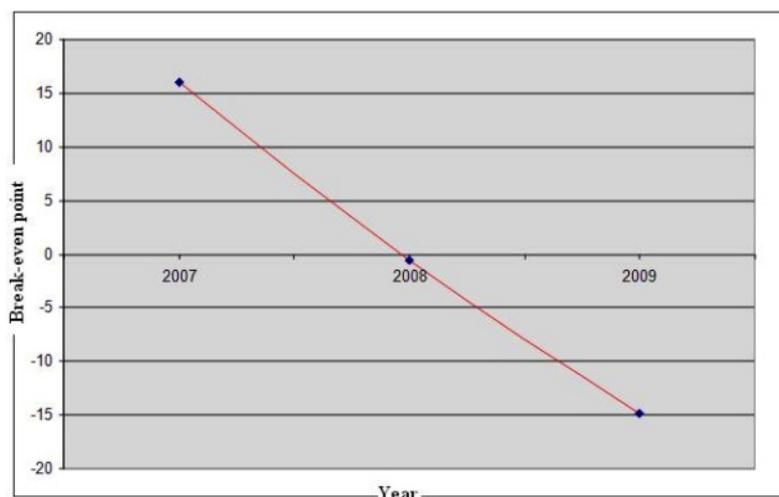


Figure 2.

Real progress of break-even point in the years 2007, 2008 and 2009

The diagrams in the figures 1 and 2 outline the non-positive influence of economic and financial crisis on profit and pharmacy's profitability. This involution is the consequence of the factors generated by economic crisis, especially brought about by legal amendments. As a result of the Romanian Government Order no. 1088/2009 for amending the framework-agreement concerning the conditions for providing healthcare [5], the payment deadline for reimbursed and free cost prescriptions was moved forward up to 180 days. Moreover, a 30-day range has been added for the control by the Health Insurance House of the documents submitted for reimbursement, so that reimbursement deadline reached 210 days. In practice, it was found that this one has also been exceeded.

Due to late payments, in the month of May 2010, the Health Insurance House also owed the pharmacy the amount of 611908.2 lei for the last four months of 2009. This is the explanation why the pharmacy has obtained a much decreased break-even point in 2009. Normally, in the absence of economic crisis, the break-even point for 2009 should have been positive as indicated in the forecast progress in figure 1, respectively half of the value reached in 2007.

The negative value of the break-even point in 2009, of -14.86, is the consequence of late reimbursement of compensated and free medicines dispensed by the pharmacy within the health insurance fund system. If the pharmacy had received the money owed, within 30 days, as before the crisis, the pharmacy would have operated in normal parameters.

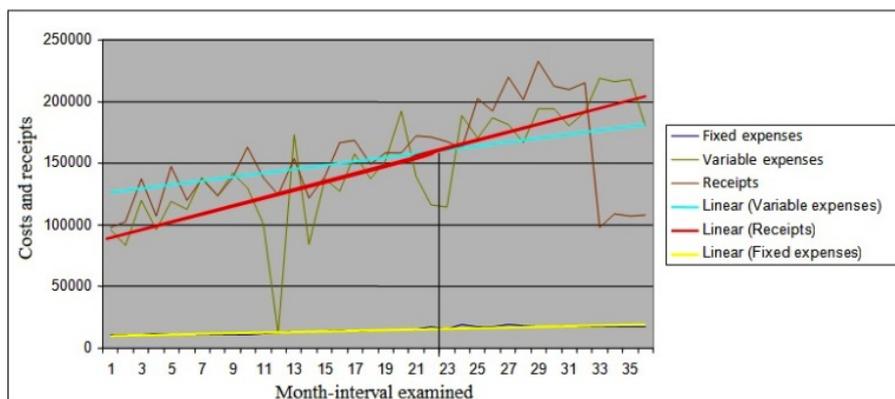


Figure 3.

Synthesis chart – costs and receipts cumulated by the pharmacy during the interval January 1st 2007 – December 31st 2009

Figure 3 reunites, in the form of a chart, the data collected in the pharmacy which were processed and laid at the basis of the calculation of break-even point. Each class of results is presented in two forms: one linear and another variable, both contributing to the interpretation of the break-even point. Fixed expenses are written down in dark blue and yellow respectively, these do not represent significant oscillations as they almost overlap. Variable expenses are represented by the green curve and light blue line, their forms being distinct due to their fluctuations. Receipts are marked in red (linear form), brown (variable form) respectively.

At the intersection of the straight lines of receipts and variable expenses, there was traced the perpendicular line on the abscissa axis OX outlining the moment when the break-even point, which corresponds to the 22nd month (out of the 36 month-interval examined).

One can notice, from figure 3, that both variable and fixed expenses of the pharmacy increased in the course of the examined time interval and for a quite long period (22 months out of the 36 examined months), costs exceeded income. Therefore the break-even point was only reached in the 22nd month, which is only in one third part of the examined interval. The sooner the break-even point is reached, the better. In case the break-even point is reached in the last third of the interval under study, it is compulsory for the pharmacy manager to take measures to increase pharmacy profitability.

Safety interval represents the level of minimum sales, so that the respective enterprise does not enter the area of losses. Safety interval was calculated using the following formula:

$$I_s = \left(1 - \frac{Pr}{CA}\right) \times 100$$

where:

Pr = break-even point;

CA = turnover [2].

Safety interval in the case of the studied pharmacy was calculated to provide forecasts for the coming period in the event the economic crisis continues or deepens. For the year 2009, the pharmacy recorded a negative break-even point, of -14.86 and a turnover of 2710507 Romanian lei. Consequently, by using these values a 100% safety interval was obtained. The value obtained for the safety interval reveals the fact that in the upcoming period the pharmacy should invest all profits to restore its financial balance. This is difficult as expenses do not involve only procurement of medicines, but also personnel costs, payment of taxes and duties, utilities etc., without which the pharmacy cannot function.

For the pharmacy under examination, which reached the break-even point after 22 months of the interval of 36 analysed months, we suggest several measures to be adopted by the chief pharmacist to increase pharmacy profitability. These measures aim at two directions: reduction of costs and increase of sales, respectively.

Pharmacy costs reduction may be achieved by:

- setting up partnerships with other pharmacies to negotiate medicines procurement prices with the suppliers;
- renegotiating the lease contract of the premises, to reduce the rent, if possible;
- reducing utilities costs, for instance by analysing the offer of several telephony and internet operators and choosing those whose offer is more profitable;
- analysing the contracts entered by the pharmacy with various companies and reducing pertaining costs by negotiation or eventually by entering contracts with other companies which have the lowest costs;
- reducing procurement costs by carefully analysing the offers of distributors and choosing the most profitable one;
- eliminating all the expenses the pharmacy may give up (for instance consumables).

Increase of pharmacy sales could be achieved, for instance, by developing current customers' loyalty or by attracting new patients through an increased quality of the provided services, by organizing programs which can be implemented at pharmacy level (for instance diabetic patient counselling programme, pregnant women counselling programme and infant

care programmes, cosmetic counselling programme etc.), by granting bonuses for non-pharmaceutical sold products, by issuing fidelity cards.

Throughout the considered three years, the pharmacy tried to recover by increasing incomes through direct sales. This implied additional products purchase.

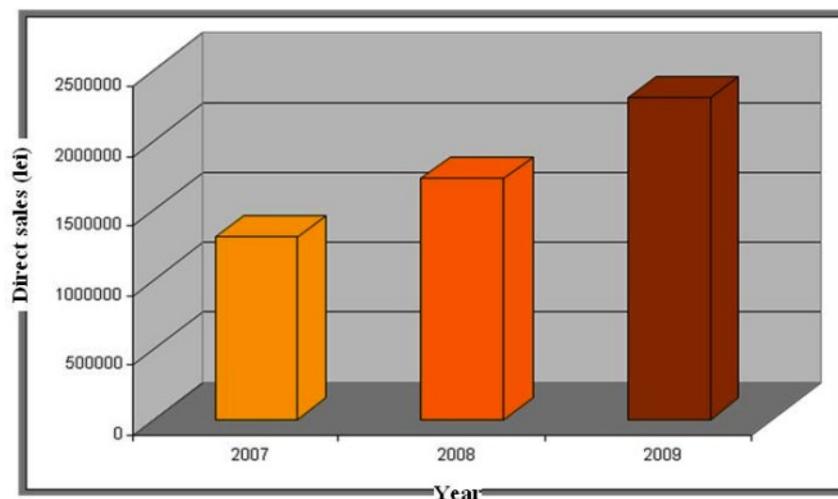


Figure 4.

Evolution of direct sales (lei) in the years 2007, 2008 and 2009

From Figure 4 can be observed that the free sales value of the pharmacy increased continuously. In comparison with 2007, sales in 2009 almost doubled (the increase was by 1.76 times). This increase proved favourable to the pharmacy, as it was able to run more spot cashed money.

Sales increase is a permanent concern for the pharmacy staff. A pharmacy differs from other commercial units through the range of special products that are specific only to pharmacy. Medicines are special goods, which include a great dose of "human intelligence" that must be handled only by specialists [10, 11]. When it comes to medicines the human facet should overcome the commercial one, therefore dispensing is strictly regulated. Nevertheless, within a pharmacy other products, indulged by various commercial agents, can be found as well, such as: cosmetics and personal hygiene products, parapharmaceuticals, dietary supplements, herbal products etc. The secret to sales increase consists in a good supply as well. It is important for a pharmacy to always dispose of the medicines most requested by patients and the specialities they most desire [11].

As far as non-pharmaceuticals are concerned, merchandising techniques can be used to display them in such an attractive manner that they can easily catch one's eye and encourage purchase [6, 8]. In the "warm areas", nearby the counter, are to be placed those products that are more likely to be purchased by impulse: make-up items, tooth-brushes etc. Conceiving gift bundles, during holiday seasons, with promotional priced cosmetics can also increase sales.

The income value is undoubtedly related to patient satisfaction. Patients' perception with regards to the offered services can be directly correlated with repetitive and increased sales. Under nowadays circumstances of a continuously growing concurrence between pharmacy units, the rendered services are the one making the difference. A more improved and diversified service portfolio is a pharmacy's possibility to overcome its competitors and thus distinguish itself amongst the various other existing pharmacies. Therefore we propose few ideas of ways to better and diversify the offered services that can lead (directly or indirectly) to growth in a pharmacy's sales and rentability.

Additional services programme that may include:

➤ *Administering injections.* An additional service that can be provided to pharmacy's patients is the administration of injections (for instance vaccines, antibiotics, insulin etc.). For this type of service, a specially arranged place within the pharmacy and qualified personnel are required. Therefore, medical offices could become less crowded and patients could save more time by taking the shots in the pharmacy from which they were purchased, both the product's price and its actual administration being covered by the person in question.

➤ *Pharmaceutical home care.* This program is designed for those that cannot reach a pharmacy or for those that want their medicines to be home delivered. In consistency, patients are to pay a delivery fee.

➤ *Measurement of biologic parameters* (arterial tension measurement, hypertension and cardiovascular risk determination, weight and body mass index measurement); determination of biochemical parameters (glucose, lipids, uric acid, prostate specific antigen etc.). Measuring such parameters in the pharmacy could be very accessible to patients. It is possible to purchase special devices: professional sphygmomanometer, professional weighing scales, glucose measuring device (glucose meter) with test strips, cholesterolmeter with test strips. Although purchase costs for the necessary devices are quite high, in time, they can be attenuated from out the fee perceived for each test that is carried out.

➤ *Chronic disease monitoring for the pharmacy's patients.* For running such a program, specifically addressed to patients suffering from chronic conditions, several aspects need to be covered: establishment of efficient relationships with patients alongside prescribers; gather and storage of all essential medical information from patients and prescribers; purchase of the medicines and devices needed to assure and monitor patients' therapy. Health Insurance House can also be involved in the programme's financing.

Editing a Pharmacy's News Bulletin, which could provide information for patients with respect to various seasonal diseases recommended diets in chronic disease, promotional offers of the pharmacy, etc.

Building a web page of the pharmacy. On the pharmacy web site, patients may find e-mail address of the pharmacy, which they may use to require additional information to pharmacists in the pharmacy and shall receive experts' replies. This service is not expensive and may constitute another confidential means to provide consulting to patients.

Counselling programme for patients giving up smoking. The costs of such a programme are to be covered by the patient itself. In addition, the pharmacy needs to make nicotine chewing gum provisions and dispose a counselling chamber.

Counselling programme for athletes. The pharmacist's role in this domain can be very important, especially if a tight collaboration with the prescriber in question is being made.

Cosmetic and dermatologic assistance programme. Diversification of the range of cosmetics in the pharmacy and provision of some cosmetic advice. Cosmetics may bring about additional profits to the pharmacy. The more various the ranges of products, the higher the revenues are by attracting patients with various preferences and needs. In consistency, the pharmacy needs a cosmetician or a pharmacist with special dermatocosmetic training as well as special devices for assessing complexion typology. It is also required to set a special area destined for patient evaluation and counselling. Cosmetic products shall be displayed within the counselling space for patients to get acquainted and buy. Each patient will receive pertinent information regarding the usage of the most suited products, after having their complexion examined. What is more, a permanent collaboration with the dermatologist will also be maintained as some cases may address its competences [11].

Counselling programme for pregnant women and baby care. Activities that can be delivered by pharmacist within this programme's

format are various: counselling regarding the hygieno-dietary regime as well as the products to be avoided during pregnancy; consumption of dietary supplements adequate to the patient's physiologic condition, in collaboration with their physician; counselling purposed to diminish the intensity of certain upsetting side effects caused by pregnancy or by the usage of some products, if occurring; pregnancy physiologic parameters screening and monitoring of the administered medicines during the period, the side effects, in close cooperation with the woman's physician; providing baby care hygiene products. Cosmetic products for children are a continuously expanding market in Romania considering the fact that adults don't consider money when concerning the healthcare of their young. It is said that the offer must be viewed from the perspective of creating need. Therefore, children products shall be located in a specially designed section [11].

Conclusions

The research carried out indicates the evolution of the rate of return of community pharmacy in Sibiu, for a period of three years (2007, 2008 and 2009) and the way it is influenced by economic and legislative factors generated by the economic and financial crisis emerged in 2008 at world level and also felt in Romania.

The values of break-even of the pharmacy varied in relation with the deepening of the economic crisis. The year 2007 was the year when the crisis was not apparent and a positive break-even was recorded and the pharmacy had profits. The year 2008 was the year in which the crisis could be felt and became a real fact and therefore there were recorded negative results from profits and break-even point of view, which was negative, but had a value close to 0. One can state that this result is the consequence of the fact that the pharmacy was not ready and had no time to recover. In 2009 the pharmacy recorded the lowest break-even point of the three years under study due mainly to the fact that the pharmacy was not refunded in time the amounts of money for the medicines released within the health insurance system.

Based on the values of break-even point, there was calculated the safety interval to provide a forecast for the next period in the event the economic crisis perpetuates. The value obtained for the safety interval indicates that in the coming period the pharmacy should increase its sales and invest 100% of the incomes to restore its financial balance.

To improve pharmacy activity and to restore its financial balance, there were proposed a wide range of measures and additional services which following their enforcement at the pharmacy level, have the aim of

increasing pharmacy's receipts and eventually to obtain higher profits and profitability rate. The services proposed refer to administer injections in the pharmacy, home delivery of medicines, measuring the biologic parameters within the pharmacy, editing a pharmacy news bulletin, build a web page of the pharmacy, communication with patients by e-mail, counselling programmes for patients giving up smoking, athletes, pregnant women and baby care, diversification of the range of cosmetics. By carrying out these services, it is expected to develop patient's loyalty but also to increase its profitability. Thus, the pharmacy shall be better integrated in the community, its personnel shall be motivated from financial point of view, new patients shall be attracted, loyal patients shall be more satisfied and the pharmacy shall be more profitable.

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