PROPOSAL ON THE MARKING OF A NEW PRODUCT UNDER A NEW MARK

Liviu Constantin STOICA[1], Marian Pompiliu CRISTESCU[2], Ana-Maria Ramona STANCU[3]

[1] PhD, Academy of Economic Studies, Bucharest, E-mail: ana_maria_ramona@yahoo.com

[2] Associate Professor, "Lucian Blaga" University, Sibiu, E-mail: marian.cristescu@ulbsibiu.ro

[3] Assistant Lecturer, "Dimitrie Cantemir" Christian University, Bucharest, E-mail: stoica.liviu.constantin@gmail.com

Abstract | In this article entitled "PROPOSAL ON THE LABELING OF A NEW PRODUCT UNDER A NEW MARKET", I wanted to know the impact of placing a product on the market of the people questioned. The study was divided into two, ie: in the first part I made a presentation on the studied society and in the second part I made a mathematical model to see if the company will profit or not after the launch of the wifi internet .

1) PRESENTATION OF THE NEW PRODUCT

The producer and publisher of the advertising message - S.C. Romtit Romania S.R.L. is a Romanian company, at the beginning of the road, which aims to promote quality to European standards. The company's expansion will be based on the desire to provide high-quality services in a growing market.

SC Romtit Romania S.R.L. treats every detail carefully in all phases, from documentation to the final stage. It is hoped that the results will be at the highest quality level and will always be up to date with the technical development. The quality of the services and products offered by the company helps to effectively deal with challenges in the telecommunication market.

The company provides the following services at a real cost:
- Fixed telephony
- Data services
- Analogue and digital cable TV
- Fixed 3D TV

Service: 3D Fixed Telephony

This service is an innovation in the fixed telephony market due to the new technology of data transmission via a high-speed antenna, and the conversion of video images into 3D image is made with specially designed spectacles. To make this connection, a modem is attached to the phone to receive information from the antenna and transpose it to the user's personal TV, while the phone's function remains the same (making the sound transfer on both sides). Thanks to this latest generation innovation, video images are received in real time and quality is a great one. What's special about this product is that its users can feel the emotions, feelings, feelings and reactions of the interlocutor.

The ROMTIT **sales price** differs depending on the chosen package, ranging from 24.99 euros (included VAT) to the Family Fiber and Family Cable packages, 29.99 euros (VAT included) in the Data Fiber package and 45.99 euro (VAT included) to the Business Bussiness Package (for business). ROMTIT package prices are fairly equal to those of

competitors after the market; UPC ROMTELECOM, but besides our competitors, we have 3D telephony.

Distribution

In order to reach the target users more easily, we created several headquarters located in the big neighborhoods, so within a maximum of 2 working days a team of ROMTIT will be presented at the indicated address and will install the services free of charge. Our headquarters are located in the Militari neighborhood, 154 Iuliu Maniu street, bl A5, sc A, ap 2 (opposite the Cora shop). In the UnireaShopping Center store on the 1st floor, Mall Vitan floor 2 and in the Stefan cel Mare neighborhood no. 54, bl C76, sc G, ap 2 (opposite the Dinamo Stadium). Our addresses can also be found on www.romtit.ro, where you can find out more about us and the services we offer

Promotion

ROMTIT services will be promoted in advertising spots on the most watched TV channels, in periodical publications such as TV guides: Freedom, ProTV Magazin, but also in newspaper pages: National Journal, Evening of the Day, and so on. It will also appeal to larger prints, positioned in public, cinema, and nand so onafe venues, especially those frequented by the target consumer segment.

a) TARGET AUDIENCE

Therefore, ROMTIT customers are willing to pay a reasonable price in order to be able to use high-quality 3D telephony services, internet and television. ROMTIT introduces 3D telephony for the first time in our country. These services are addressed to individuals and businesses.
a. Individuals:
Age: 25-45 years
Originating environment: urban
Income: medium, high,
Secondary education,
Lifestyle and personality: The targeted clients have an active lifestyle, they are balanced, balanced personalities who know how to make the right choice for them and who have a great interest in communicating easily and permanently in touch with everything what's new with your loved ones. They have a well-founded family and the vast majority of them are gone all the time and are away from their loved ones for a long time.
b. Legal entities: All medium and large companies, those that are developing, those who want to expand into more locations or are already developed.

b) POSITIONING THE ROMTIT BRAND AND THE TARGET AUDIENCE

This service is available for the first time in Romania. It's easy and easy to install. There is no need for a cable, all of which is transmitted through the waves. An antenna that helps capture waves is secured with a password that only the user knows, and the modem receives all the information wirelessly. It is the easiest way to communicate with loved ones, but also to conclude long distance contracts. There is no need for long and tiring journeys to conclude a contract or to take part in a conference. It is a very useful service for companies.

First, money and time are saved, and in a company the two resources are very precious. Business representatives no longer have to travel around the world to discuss or advise with their partners. Now, with the new service offered by ROMTIT, the leadership of a company is no longer so exhausting. With the help of this service, it is possible to conclude contracts with companies from other countries even from the office, conferences with people from all countries can be organized without having to travel. Because of this type of business, business meetings are just like "face to face". In the 21st century, time is a very precious resource. We now offer you the opportunity to spend more time with family. As for individuals, they can be close to their loved ones at any time regardless of the distance that separates them.

c) THE IDENTITY OF THE ROMTIT BRAND AND THE CONTENT OF THE MESSAGE

Abbreviation from Romania; telephony, internet and television has formed a nucleus that gave birth to the ROMTIT brand name, which inspires power and stability.
The prince

"Connecting people" are the keywords suggested by the image of interconnected people. Different colors of this indicate environmental differences, culture, and so on. and yet nothing prevents them from building a unitary one, not even the distance that separates them. ROMTIT service packs are presented individually along with the corresponding price so that any customer can make the choice that suits her best. Colorful living images inspire life and well-being brought to customers once they have subscribed to the company's services.

Slogan
"Everything is now simpler" or "Stay close to your loved ones" refers to the new recipe offered by S.C. ROMTIT Romania S.R.L., namely the service packages. It guarantees simplicity, modernity and ease in choosing the right ones and paying them in one invoice, so the headaches with the roads and lost time at the counter will disappear forever.

d) THE LAYOUT OF AN AD TO BE PUBLISHED IN A REGULAR PUBLICATION

To promote ROMTIT in a periodical publication, the weekly magazine ProTV Magazin was chosen. This is addressed to a segment of the population that includes the ROMTIT target segment. This publication presents in its pages news, trends, and the TV guide of the week, this representative the perfect opportunity to insert our package offer. Thus, the readers of the magazine are brought to know the services and offers of our company, being able to be clear and oriented towards simplicity and ease. For a better exposure, the ad is 1/1 and is located on the right side of the magazine.

2) MAKING A MATHEMATICAL MODEL FOR LAUNCHING A PRODUCT ON THE MARKET[1]

SC ROMTIT Romania S.R.L wants to launch wifi internet for the questioned people.
As a result of the contracts, the company gets a profit from the launch of the wifi internet for women of 200 u.m. (lei, euro, dollars, and so on.), and from the male, the company obtains a profit of 160 u.m. (lei, euro, dollars, and so on.).

In the coming weeks, the company has 2000 contracts, as follows:
- For women, 36 hours (50 days * 6 hours / day = 300 hours) are allocated;
- For men, 40 hours (30 days * 10 hours / day = 300 hours) are allocated.

The company has in stock 1200 contracts for female and 800 contracts for male[2].
Contracts and all related documentation have a total area of 6 m^2, so for contracts of persons of women is 1.6 m^2 and for contracts of persons of sex male of 1 m^2.

The company wants to set the wifi launch plan in the next period so the profit is maximum.
Information about the wifi internet launch was provided to me by the office worker.

In order to achieve the mathematical model, we synthesized the data in Table 1.

Resources	Contracts		Available
	women	men	
R1	12 (days)	20 (days)	600 (hour)
R2	1,6 (m2)	1 (m2)	60 (m2)
Advantage (u.m.)	100 u.m.	80 u.m.	

Table 1 - Data Synthesis

[1] Stancu Ana-Maria Ramona, Lungu Ion, "Realizarea unui model matematic", Conferința Națională cu participare Internațională, Revista " Knowledge Horizons – Economics", Vol 7, Issue 1, ISSN 2066-1061, 2015

[2] Fisher D., "Optimization and simplification of hierarchical clustering", Proceedings of 1st Int. Conf. on Knowledge Discovery and Data Mining (KDD'95), pg.118-123, Montreal, Canada, 1995

To accomplish the mathematical model, I must follow several steps.

In the first step, they must identify the variables and units of measure (the unknowns of the problem are the decision variables).

That is, the decision variables are:

 x 1 - female (F);

 x2 - male (M).

So, using the decision variables, the mathematical model is achieved.

In the second step I have to calculate the total profit, which should be maximized with the objective function.

 I know that the profit for females (F) is 50 u.m. and the company produces 60 * x1, and for men (M) it is 40 u.m. and the company produces a 40 * x2.

So the objective function will be: $f(x) = 200 * x_1 + 160 * x_2 = MAX\ (u.m.)$

 In stage three, they express the restrictions that must meet various conditions: hours, number of cards, days, and so on.

$$\begin{cases} 12 * x_1 + 20 * x_2 \le 600 \\ 16 * x_1 + 10 * x_2 \le 600 \\ x_2 \le 40 \end{cases}$$

 In the fourth step I have to set the conditions of non-negativity, ie: $x_1 \ge 0, x_2 \ge 0$

Under the stages and restrictions I will have:

$$\max f(x) = 100 * x_1 + 80 * x_2$$
$$\begin{cases} 12 * x_1 + 20 * x_2 \le 600\ (ore) \\ 16 * x_1 + 10 * x_2 \le 600 \\ x_2 \le 40 \\ x_1 \ge 0, x_2 \ge 0 \end{cases}$$

I still resolve the issue by the graphical method.

 The first step is to visualize the set of admissible solutions that satisfy the conditions of non-negation.

I see the point that satisfies inequality: $d_1: 12 * x_1 + 20 * x_2 \le 600$

  If $x_1 = 0$ so $20 * x_2 = 300$, deci $x_2 = 30$

If $x_2 = 0$ so $12 * x_2 = 300$, deci $x_1 = 25$

I have the point A (0, 30) şi B(25, 0)

I see the point that satisfies inequality:

 $x_2 = 0$ și $d_2: x_2 = 40$ and I will have the point C (0, 20)

I see the point that satisfies inequality: $16 * x_1 + 10x_2 \le 600$

$d_3: 16 * x_1 + 10 * x_2 = 600$

 If $x_1 = 0$ then $10 * x_2 = 600$, so $x_2 = 60$

 If $x_2 = 0$ then $16 * x_1 = 600$, so $x_1 = 37.5$

I have point D (0, 60) and E (37.5, 0)

 In the second stage the optimal solution is determined, the stage where I assume I will have 60 contracts for female and 40 contracts for male.

 I know that: $f(x) = 100 * x_1 + 80 * x_2$. So, point (10, 20) is in the set of admissible solutions of function *f*.

Then I will: 100*60+80*40 = 6000+3200 = 9200

 9200 if and only if $100 * x_1 + 80 * x_2 = 9200$

So, $(\forall) x_1, x_2$ function *f* brings a profit de 9200.

Whether $100 * x_1 + 80 * x_2 = 9200$

  If $x_1 = 0$ then $80 * x_2 = 9200$, so $x_2 = 115$

  If $x_2 = 0$ then $100 * x_1 = 9200$, so $x_1 = 92$

I want to make a double profit.

  $100 * x_1 + 80 * x_2 = 18400$

 If $x_1 = 0$ then $80 * x_2 = 18400$, so $x_2 = 230$

 If $x_2 = 0$ then $100 * x_1 = 18400$, so $x_1 = 184$

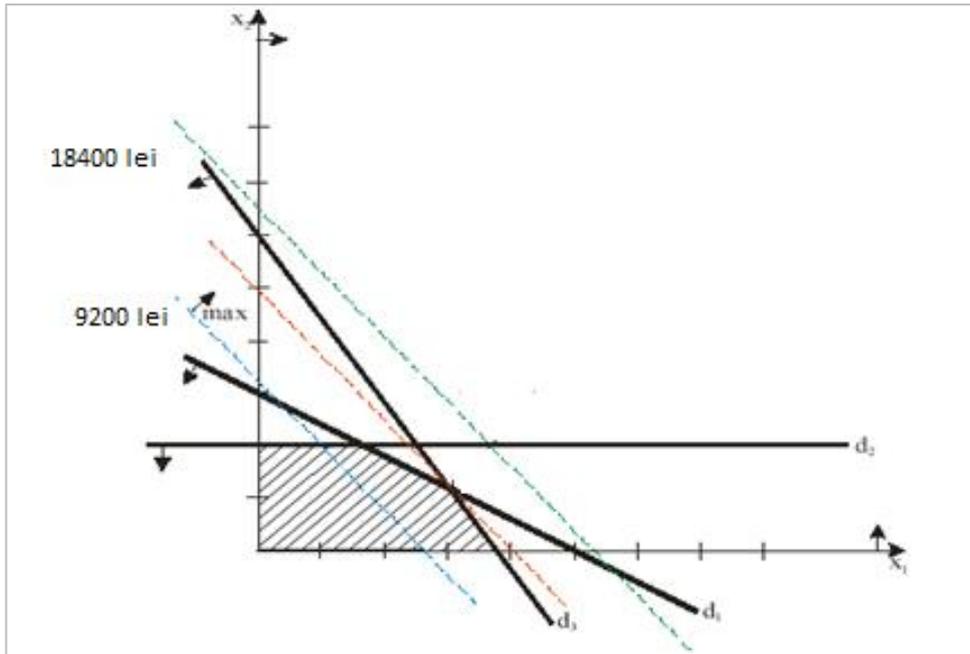I have the point F (0, 230) şi G (184, 0)

I will have the following graph:

Figure 1 - Profit calculation

It is noticeable that the right d5 does not intersect the shaded set, so they can not have a 4600 profit.

Note that the lines $100 * x_1 + 80 * x_2 = 9200$ and $100 * x_1 + 80 * x_2 = 18400$ are parallel, so $f(x) = 100 * x_1 + 80 * x_2$ represents a parallel beam.

If I move the right that corresponds to the function $f = 9200$ in the direction of the maximum, then I find that the maximum profit corresponds to the intersection point of the d$_1$ and d$_2$ lines.

$$\begin{cases} 12 * x_1 + 20 * x_2 = 600 \\ 16 * x_1 + 10 * x_2 = 600 \end{cases}$$

The optimal solution for the system is : $x_1^* = 30$ şi $x_2^* = 12$.

But, $f(x) = 100 * x_1 + 80 * x_2$. That is, max (f) = 100 * 30 + 80 * 12 = 3000 + 960 = 3960

The work program for the maximum profit proposes to make 20 contracts for the sexes and 40 contracts for the sexes M, and the profit will be 3960.

7) CONCLUSIONS

After studying the data and a mathematical model, I noticed that the company will make a profit when launching the new Wi-Fi Internet.

8) REFERENCES

- Fisher D., "Optimization and simplification of hierarchical clustering", Proceedings of 1st Int. Conf. on Knowledge Discovery and Data Mining (KDD'95), pg.118-123, Montreal, Canada, 1995

- Stancu Ana-Maria Ramona, Lungu Ion,"Realizarea unui model matematic", Conferința Națională cu participare Internațională, Revista " Knowledge Horizons – Economics", Vol 7, Issue 1, ISSN 2066-1061, 2015

- http://doingbusiness.ro/financiar/raport/159 1111/romtit-srl/