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How to improve profitability of a household aluminum foil manufacturing company in Serbia: Comparison of Two Strategies

MBA Thesis
BA 399 MBA Research Project

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1. Introduction

1.1 About the firm

SZR Alcakov was founded in Belgrade in 2002. It is a small entrepreneurship that specializes in production of household aluminum foil. At the beginning of its business, there was one product line with two products. These were household aluminum foils with lengths of 8m and 15m called - "Alcak Lepo" 8m and "Alcak Lepo" 15m. From 2002 to 2004, it cooperated only with small grocery shops and local neighborhood shops.

In 2004, the business operation expanded and SZR Alcakov started to sell its products to the IDEA supermarket chain. In 2004, SZR Alcakov expanded its product line from two products to four. Since then, the product line has encompassed: "Alcak Lepo" brand of 5m, "Alcak Lepo" brand of 8m, "Alcak Lepo" brand of 15m and "Alcak Lepo" brand of 30m.

In 2005, SZR Alcakov expanded its business operations, once again. In addition to the household aluminum foil, it initiated trading in products such as meat paper for butcher shops, kitchen sponges, refrigerators and garbage bags.

In February 2009, SZR Alcakov started to produce private label household aluminum foil for the IDEA superstore (K plus). This included production of household aluminum foil for brand "K plus" 10m, brand "K plus" 20m and brand "K plus" 30 m. The production of a private label for Idea superstore required great commitment and outstanding efforts. This caused reduction in range of products that was being sold. Production of the household aluminum foil and the trade in meat paper for butcher shops remained the only business activities of the entrepreneurship. This study will only be focused on household aluminum foil because it generates 90% of revenue of total business revenue.

The main mission of the company is to provide the best products for preservation of food with the lowest prices at the market.

The vision of the company is to be one of the most recognizable brands for household aluminum foil.

The major goals are:

- To be in TOP 3 in the market share holdings in household aluminum foil market
- To have at least € 10 000 profit at the end of the year

The strategy that the company uses is **cost leadership strategy**,¹ implying that its products are one of the cheapest at the market; with the plan to have the lowest prices and good quality at the same time.

¹Hill C., Jones G.,(2007).Strategic management-7th edition. Houghton Mifflin Company. Boston

SWOT analysis:

Internal analysis:

▪ **Strengths:**

- "Just-in-Time production" – allows lower costs and lower inventory
- Possibility to make and transport household aluminum foil in minimum 3 to maximum 36 hours basis
- Only producer in Belgrade that can produce and transport the order if it is less than 400 pieces in the same day
- Reliability and "NO LATE POLICY" (if the shipment is late SZR Alcakov deducts 5 % of receivables)
- The biggest domestic producer of household aluminum foil in Belgrade

▪ **Weaknesses:**

- Semi automatic machines for production
- Machine can only produce 2000 pieces a day
- Weather dependent (location of the factory and warehouse is not reachable if there is snow or extreme rain)

External analysis:

▪ **Opportunities :**

- Possibility to expand from 2 to all 4 superstores
- One of the three companies situated in Belgrade (two domestic producers and one importer)
- Financial crisis will cause people to look more for lower prices
- Possibility of importing and skipping the Serbian intermediary who earns bigger profit margins because of monopoly

▪ **Threats :**

- Import from China(the Serbian government allows all imports from China, without protecting the competition)
- Competitor FINO (Greece) is to open a factory in Serbia
- Consumers are expected to start buying more and more private label brands

1.2 Company situation

In 2009, SZR Alcakov sold 228,800 pieces of household aluminum foil. Total amount of the sold Alcak brand "Alcak Lepo" was 61,450 and total amount of sold private label of Idea superstore "K plus" was 167,350 pieces. From total amount of the pieces sold in 2009, SZR Alcakov had a profit of RSD 851,723.29 or EUR 8,517. In 2008, there was sold 70,117 pieces, with profit of RSD 921,862.71 or EUR 9,218.

Consequently, this caused cost profit analysis for the first time since 2002. Most of the business operation was done by intuition from professional experience without deeper business analysis, whereas the price was set by comparing it with competition, with the price level lower than its competition.

For the cost profit analysis it was calculated:

- The difference in days period between when SZR Alcakov pays to its suppliers and when the buyers pay to SZR Alcakov
- Cost per product
- Total costs
- Revenue for all products
- Discounted revenue on the same day as cost, because of the difference in paying days
- Profit margin per product

In 2009, SZR Alcakov paid suppliers in average 99 days after the order, and buyers of SZR Alcakov paid in average after 141 days after the shipment.² The difference in days for 2009 was 42 days.

Revenue of each buyer was discounted on present value of cost where there was 42 day difference.

Formula that was used for discounting was a simple interest formula:

$$PV = \frac{FV}{1+i*t}$$

$$t = \frac{d}{365}$$

FV- Value that is discounted (Revenue from buyers)

i- Interest rate for opportunity cost which is 8.5%

t- Time period

d- Number of days

² Table for supplier and buyers is in appendix

³ Raseto J.,(2009).Finansijska i aktuarska matematika(Financial and actuarial mathematics). Singidunum University. Belgrade , page 26

TABLE 1⁴ – COST-PROFIT ANALYSIS

Brand	Cost ⁵ (RSD)	Total cost(RSD)	Discounted revenue (RSD)	Revenue (RSD)	Loss from difference in paying (RSD)
Alcak lepo 5m	16.61	326,386.50	475,180.07	503,001.35	27,821.28
Alcak lepo 8m	22.85	775,757.50	1,144,936.32	1,208,959.5	64,023.18
K plus 10m	30.06	3,289,165.20	3,204,324.84	3,556,150	351,825.16
Alcak lepo 15m	37.39	142,082.00	285,831.39	303,208	17,376.61
K plus 20m	50.84	1,674,669.60	1,698,082.86	1,818,288	120,205.14
Alcak lepo 30m	68.56	277,668.00	419,890.30	446,032.5	26,142.20
K plus 30m	71.62	1,789,783.80	1,898,990.10	2,001,699	102,708.90
TOTAL		8,275,512.60	9,127,235.89	9,837,338.35	710,102.46
					7.22%

From table 1, we can conclude that the total cost in 2009 of SZR Alcakov for the household aluminum products was RSD 8,275,512.60 or EUR 82,755 and that the total revenue in 2009 was RSD 9,127,235.89 or EUR 91,272 when the revenue was discounted on the same day as costs. If the revenue was not discounted, the revenue amount for 2009 was RSD 9,837,338.35 or EUR 98,373. SZR Alcakov lost 7.22% of total revenue or RSD 710,102.46 or EUR 7,101 on time difference in days when SZR Alcakov pays to its suppliers and when its buyers pay to SZR Alcakov.

⁴ This table is shortened, total calculation is in appendix

⁵ Calculation of cost per product is in appendix

TABLE 2⁶- COST - PROFIT ANALYSIS

Brand	Length in meters	Cost (RSD)	DASP ⁷ (RSD)	ASP ⁸ (RSD)	Profit	Amount sold
Alcak lepo 5m	5	16.61	24.18	25.60	31.31%	19,650
Alcak lepo 8m	8	22.85	33.72	35.61	32.24%	33,950
K plus 10m	10	30.06	29.28	32.50	-2.65%	109,420
Alcak lepo 15m	15	37.39	75.22	79.79	50.29%	3,800
K plus 20m	20	50.84	51.55	55.20	1.38%	32,940
Alcak lepo 30m	30	68.56	103.68	110.13	33.27%	4,050
K plus 30m	30	71.62	75.99	80.10	5.75%	24,990
TOTAL						228,800

In table 2, we can see the profitability of the Alcakov brand, where the profit margin for "Alcak lepo" 5m was 31.31%, for "Alcak lepo" 8m was 32.24% for "Alcak lepo" 15m was 50.29% and for "Alcak lepo" 30m was 33.27%.

For brand "K plus", we can see that the brand "K plus" 10m had a negative profit margin of -2.65%, profit margins for "K plus" 20m was positive with 1.38% and the profit margin for "K plus " 30m was also positive with 5.75%.

⁶ This table is shortened , total calculation is in appendix

⁷ DASP- Discounted average selling price

⁸ ASP – Average selling price

TABLE 3⁹- COST – PROFIT ANALYSIS

Product	Profit	Amount sold	Profit in RSD	Profit in RSD for Alcakov brand	Profit in RSD for Idea store brand
Alcak lepo 5m	31.31%	19,650	148,793.57	148,793.57	
Alcak lepo 8m	32.24%	33,950	369,178.82	369,178.82	
K plus 10m	-2.65%	109,420	-84,840.36		-84,840.36
Alcak lepo 15m	50.29%	3,800	143,749.39	143,749.39	
K plus 20m	1.38%	32,940	23,413.26		23,413.26
Alcak lepo 30m	33.27%	4,050	142,222.30	142,222.30	
K plus 30m	5.75%	24,990	109,206.30		109,206.30
TOTAL		228,800	851,723.29	803,944.08	47,779.21
Total profit margin			9.33%	8.80%	0.53%

Table 3 shows that the discounted profit of SZR Alcakov for 2009 was RSD 851,723.29 or EUR 8,517. From the "Alcak Lepo" brand the total amount of profit was RSD 803,944.08 or EUR 8,039 and from the "K plus" profit was RSD 47,779.21 or EUR 477.

The profit of "Alcak Lepo" 5m in 2009 was positive and it was RSD 148,793.57 or EUR 1,487 for sold 19,650 pieces, profit of "Alcak Lepo" 8m was RSD 369,178.82 or EUR 3,691 for sold 22,950 pieces, profit of "Alcak Lepo" 15m was RSD 143,749.39 or EUR 1,437 for sold 3,800 pieces and profit for "Alcak Lepo" 30m was RSD 142,222.30 or EUR 1,422 for sold 4050 pieces

In table 3 we can see the profit from a private label of Idea superstore – "K plus". Profit of "K plus" 10 m was negative or RSD -84,840.36 or loss of EUR 848 for the sold 109,420 pieces, profit of "K plus" 20m was positive RSD 23,413.26 or EUR 234, and profit of "K plus" 30m was RSD 109,206.30 or positive EUR 1,092. The total profit for private label of Idea superstore "K plus" was RSD 47,779.21 or EUR 477.

Among three products that SZR Alcakov was producing for Idea superstore "K plus" 30m and "K plus" 20 m were generating profit that encompassed the loss from "K plus" 10m.

Looking at the profit numbers of the private label of Idea superstores, SZR Alcakov decided to stop the production of the private label of Idea superstores.

1.3 Background of the Serbian market

The analysis of the household aluminum foil industry in Serbia can be described with analysis of Porter's five forces. This five forces concept will help to show which factors in the industry are

⁹ This table is shortened , total calculation is in appendix

very influential for operating in this industry and which are very low. Analysis of Porter's five forces will show at what kind of market SZR Alcakov operates in Belgrade.

1. Bargaining power of buyers

Household aluminum foil products are facing weak buyer power because there are a lot of customers which are much segmented, and have low influence on the prices of the products. But if we consider wholesalers and supermarket chains that buy in bulks they have very high bargaining power. Big retailers such as Idea, Delta group (Maxi, Tempo, and Pekabeta), Vero, and Merkator-Rodic are able to negotiate for prices because they purchase and sell majority of household aluminum products in Belgrade.

2. Bargaining power of suppliers

The main suppliers in this market are importers of aluminum foil. Because the cost of aluminum foil (material for production) has, in average, a big share in cost of household aluminum products i.e. more than 80%, they have big saying what the production price will be. In Serbia, there are three big importers: Alu produkt, Kristal Group and SMS. The product they supply is vital to the industry, which implies high bargaining power with the buyers at the market. The price of importing from abroad is very high, so most of the companies that make household aluminum foil rely on their prices to determine its own price. They can also threaten the industry because they can easily enter the market and become their customer competitors.

3. Threat of new entrants

The amount of capital investment needed to enter into production of household aluminum foil products is low and the threat of new entrants is very high. Possibility of new supplier of foil entering the market is very high and inevitable in the future. Most of the industry is composed of small companies. Any company that wants to start production of household aluminum foil can do so very easily. The test for these manufacturers is not producing household aluminum foil; it is, if they can get their products on the shelves of the big retail stores as their larger can.

4. Threat of substitute products

The main reasons why consumers buy foil are to put food in the refrigerators and to pack food for journeys. Instead of aluminum foil, plastic containers can be also used to put food in refrigerators. The other possible substitute is stretch foil for preservation of food. The biggest threat in this industry and in most consumer product industry is the production of private label. This is the prevailing trend on the retail market in Serbia. Some companies are competing with that by producing private labels for supermarkets to which they are selling its products. It is their firm belief that if they can manufacture and package a lower price alternative themselves, they would be ready to accept lower-marginal revenue instead of risk from losing sales to private label competitor.

5. Rivalry among established companies

There are two big companies (Fino and Alu pak) that enjoy together big market share, i.e. 40% of the market share. The entire market is divided among a large number of manufacturers. While some consumers prefer certain brands, such as Fino and Alupak, switching cost are very low and many customers don't care which brand of products they are buying. It does not cost consumer anything to buy one brand of household aluminum foil instead of another. This and all other factors that were discussed above make this industry very competitive.

Serbia was not an exception when the global financial crisis hit the world's strongest economies. The economic situation worsened and the power of buyers decreased. The problems with liquidity of the economy gave rise to grey economy, and strong competition of big supermarket chains influenced closing down of many small retail stores. According to the Agency of trade register, 11,000 companies closed down¹⁰. Bad liquidity in Serbia also reflected on the standard of living and that reflected on consumer spending. In Serbia, every eight participant in a survey of "Market magazine" complains on irregular income, and seven percent of the entire population showed loss of ways to earn income.

The crisis in Serbia worsened in January 2008 and continued to get worse in 2009. The inflation in 2009 was 6.6 %¹¹ and the consumer price index inflation (CPI) was 10.1%¹². In January, the number of the people employed was 1 983 000 and in December 2010 reduced to 1,857,000 people employed.¹³ More than 100,000 people lost their jobs. All this influenced the buying power of consumers and changed in consumer preferences and in consumer trends. In 2009, Serbian consumers reduced number of weekly shopping tours or monthly purchases of drinks, food products, and many other non-food products.

The sales of household aluminum foil had a decrease in 2009. According to the data acquired from research agency MEMRB, the total amount sold for Belgrade was 1,480,586 pieces and in 2009 there 1,428,993 pieces were sold.

The research agency data for market share can be found in the appendix. The biggest market share has Alu pak with 28.34%, and second biggest is Fino with 15.99%. From the total market share in sold pieces in 2009, there is a big trend of production and placement of private labels of big supermarket stores. PL part of the market has 27.42% of market share, where Idea Private label has 9.37%, Delta group 10.45% and Merkator 4.11%. In the group of small producers of household aluminum foil, Celeja-Mibra and Alufix take both around 10% and Zoki, Prima pak and SZR Alcakov around 3% each.

In Serbia, 43% of total consumers buy commodity goods in traditional neighborhood shops, the same percentage of the population buys in supermarket chains, 13 percent in hypermarkets and 2 percents in cash and carry shops.¹⁴

¹⁰ <http://www.market-srbija.com/tema/kako-ostati-likvidan> , date 12.02.2010.

¹¹ <http://www.emg.rs/vesti/srbija/110532.html> date 12.02.2010

¹² <http://www.economy.rs/finansije/6366/Inflacija-u-Srbiji-u-2009--bila-6-6-odsto.html>, date 15.02.2010

¹³ www.nbs.rs- statistical bulletin for 2009- pdf file

¹⁴ <http://www.bgsvetionik.com/ekonomija/manje-kupaca-u-hipermarketima.html>, date 15.02.2010

According to Mr. Filipovic, the general manager of Delta Maxi group, the same amount of consumers buy in their stores as in 2008, but the shopping is "lighter". The Serbian consumers are buying less and less luxurious goods and more and more comparing quality and price.

Because of the problem with consumers buying power, supermarket chains allow them delayed paying. This means that already non liquid trade market is becoming even less liquid.

– If you sell goods in your stores on delayed paying for 60 or 90 days, you have to pay to your suppliers also later than what is agreed on. This causes either a rise of prices, or delivery stoppage- Kristof Le Ru, general manager of Interex group for Serbia.¹⁵

One rising trend on the Serbia's superstore market is PL or private labels. For Delta Maxi group (that has 40% market share for sales in household aluminum foil in Belgrade) this is one of the main objectives in future.

- At this moment, we have more than 1500 products and satisfied consumers. Their main characteristic is good quality – Rajko Mandic, general manager of Maxi¹⁶

The Serbian government helped the citizens and the economy with 1.1 billion Euros, in the way that it subsidized interest rates with 55 million Euros. This was only 0.15 % of Serbian GDP, compared to Germany's 2.5 % of GDP or 68 billion Euros, or Ireland's 0.3 GDP or 623 million Euros .The Serbian government is trying to fight the illiquidity with subsidized loans for business. In 2009, there were 11,000 credits for liquidity in total value of 1.1 billion Euros. This helped many companies in 2009 and this practice will be continued in 2010. This helps many firms, where paying of their obligations helps not just those firms, but the other firms in the chain.¹⁷

In 2010, the Serbian government introduced the dinar (RSD) consumer and cash loans for citizens for the first time. The state will provide a billion and a half dinars for an interest subsidy. Subsidized consumer credit can be used to buy home furnishings, floor coverings, white goods, building material, sanitation, and to pay for travel arrangements in Serbia. Minister of economy Mladjan Dinkic stated that the cost of a credit throughout the period will be fixed, regardless of changes in benchmark interest rates, while the possible differences in the changes of the benchmark interest rate will be paid by the state¹⁸

Research agency MEMRB says that the sales level of household aluminum foil are higher than in 2009, almost at the same level as in 2008 for the first quarter in 2010.

¹⁵ <http://www.market-srbija.com/aktuelno/borba-za-potrosace> ,date 15.02.2010

¹⁶ <http://www.market-srbija.com/aktuelno/borba-za-potrosace> date 15.02.2010

¹⁷ <http://www.infogo.biz/vrtlog-nelikvidnosti-sve-brzi-i-jači.html>, date 23.03.2010

¹⁸ <http://www.emg.rs/vesti/srbija/117074.html>, date 25.03.2010

2. Definition of terms

A **strategy** is a set of related actions that managers take to increase their company performance.

One way of measuring **profitability** is by the return that it makes on their capital invested in enterprise.

The **mission** describes what it is that the company does.

The **vision** of a company lays out some desired future state, i.e. what the company would like to achieve.

The **goal** is precise and measurable future states that company attempt to realize.

The **SWOT** analysis is comparison of strengths, weaknesses, opportunities, and treats.

An **industry** can be defined as a group of companies offering products or services that are close substitutes for each other.

Fixed cost¹⁹ is cost that remains unchanged in total for given time period, despite wide changes in related level of total activity or volume.

Direct costs of cost object are related to the particular cost object and can be traced to it in an economically feasible way, also known as variable cost.

Market share, in strategic management and marketing is, according to Carlton O'Neal, the percentage or proportion of the total available market or market segment that is being serviced by a company.

Private label²⁰ products or services are typically those manufactured or provided by one company for offer under another company's brand. Private label goods and services are available in a wide range of industries from food to cosmetics to web hosting. They are often positioned as lower cost alternatives to regional, national or international brands, although recently some private label brands have been positioned as "premium" brands to compete with existing "name" brands.

In business, **revenues** or **revenue** is income that a company receives from its normal business activities, usually from the sale of goods and services to customers.

¹⁹ Horngren C., Datar S., Foster G., (2006). Cost accounting-12th edition. Prentice Hall. New Jersey

²⁰ Kotler P., Armstrong G., (2008). Principles of marketing-12th edition. Prentice Hall. New Jersey

Future value (FV) is amount to which a cash flow or series of cash flows will grow over given period of time when compounded at a given interest rate

Present value (PV) is value today of a future cash flow or series of cash flow.

Simple interest occurs when interest is not earned on interest.

Annuity²¹ is a series of equal payments at fixed intervals for specific number of periods.

²¹ Brigham E., Houston J.,(2007). Fundamentals of financial management-11th Edition. Thomson South-Western. Mason

3. Research Purpose and Problem Statement

Research Purpose

In 2009, the overall profitability of all household aluminum foil products was 9.33% where profitability of each Alcakov brand were: "Alcak lepo" 5m with 31.31%, "Alcak lepo" 8m with 32.24%, "Alcak lepo" 15m with 50.29% and for "Alcak lepo" 30m with 33.27%. For Private label of Idea superstore "K plus", profitability for "K plus" 10m had a negative profit margin of -2.65%, profit margin for "K plus" 20m was positive with 1.38% and profit margin for "K plus" 30m was also positive with 5.75%.

Because of dissatisfying profit margins; "K plus" 10 m – loss of EUR 848 for sold 109,420 pieces; "K plus" 20m- profit of EUR 234, and "K plus" 30m- profit of EUR 1,092. The total profit for private label of Idea superstore "K plus" was EUR 477 for sold 167,350 pieces of aluminum foil. Having compared the profit numbers of private label and its Alcak Lepo brand, SZR Alcakov decided to stop production of private label for Idea superstore.

Since the stopped production of private label led to the lack of profit **the overall purpose of the study is to find additional ways to improve profitability of the company.**

Problem Statement

The main problem of this study is to find a strategy that would result in the highest expected profit.

The first strategy that will be examined is testing the preference of the consumers for different type of wrapping for household aluminum foil. SZR Alcakov wants to find out, whether consumers prefer box packaging and if they can set a higher price for the products and have higher profitability.

The second strategy that will be tested is reducing cost with paying in advance with subsidized credit to SZR Alcakov main supplier of aluminum foil to get 20% discount on buying price per kilogram.

Scope and Limitations

There are a couple of limitations for this study. Because the market for household aluminum foil is not large, there are no public data available that can be used for comparison. The market share is not historically known. There is only data for 2008, and 2009 from the research agency MEMRB and only in total amount of sold pieces by manufactures and supermarket chains. Most of the business that was done in this area and any business decision had to do with the manager intuition. The data that can be obtained is limited and makes this paper exploratory but still can create a picture of this market. The market and the preference of its consumers are not known and this will be one of the first researches that will encompass consumer preference with foil packaging, price and quality. Another limitation has to do with internal problem of SZR. Accounting program that is used for bookkeeping cannot provide information suitable for any financial analysis. Available data from the program are the data on total revenues, obligations of all buyers and suppliers. The main purpose is to calculate the amount of VAT. The data that are used for this analysis were manually entered into Excel worksheets for 2009.

4. Research design

The research data that are used in this study are secondary and primary data.

Secondary data is very obscure since there were no studies for market of aluminum foil. The main secondary sources are economic magazines, internet magazines and data from research agency MEMRB from Belgrade.

Primary data will be the biggest portion in this study. The data is obtained from accounting for financial analysis and from consumers in retail stores for analysis of consumer preference.

The data of entire population who buys aluminum foil is not available because no study was done with that purpose; this limitation caused the reason that data of market share of sold pieces in different retail stores were used to make a quota for the sample for the research.

The sample is stratified sample²², where population was divided into consumers who buy in Delta group stores (Tempo, Maxi, and Pekabeta), Merkator- Rodic supermarkets, Vero supermarkets, Idea supermarkets, and local neighborhood stores.

The researcher visited some stores and some were visited with students of University of Singidunum. Stores were visited in two periods in a day, from 10h-13h and from 16h-19h in a period from February to April.

The questions that were asked were:²³

1. **How often do you buy aluminum foil for your household?; How often do you use aluminum foil in your household?**

These questions were asked because we wanted to see if there is a connection when people use and buy foil with types of wrapping for household aluminum foil.

2. **Where do you most often buy household aluminum foil?**

This was used as a question for stratification purpose. Every store had its quota number. The second reason for this question was to see the difference in opinions for types of wrapping, and use and even demographics of people who buy household aluminum foil in these stores.

3. **What brand do you most frequently buy? ; Rate the satisfaction of the quality of your main brand that you frequently buy; Rate the satisfaction of the price of your main brand that you most frequently buy**

²² Zikmund. W.,(2003)Business Research Methods-7th edition. McGraw-Hill Irwin

²³ Questionnaire that was given to the consumers is in appendix

These questions had the goal to see at what level is brand awareness of all brands of household aluminum foil. The other reason is to see how the consumers are satisfied with these brands. The other reason is to see whether consumers that are loyal to a brand want different wrapping than its brand currently has. Other reason was to see demographics of these brand loyal consumers and to see where they mostly buy its products and at what level is the usage of household aluminum foil of those consumers.

4. When you had the possibility to choose which one you would pick?

In this question consumers got two possibilities to choose from:

1. Aluminum foil packed in a box
2. Aluminum foil packed with see-through foil

Main goal of this question was to see which wrapping consumer mostly prefer. This question is used also to compare type of wrapping that consumers prefer with place of buying and brand loyalty. Also this question is used to compare it with demographics, like does it has difference between man and women in buying habits or income, or how many children there is in house hold.

5. Rate the importance of the cutter of the aluminum foil that comes with the box?

This question had a goal to see how big consumer preference for this addition to the wrapping is. There is no box wrapping with cutter for household aluminum foil at Serbian market.

6. Please chose which household aluminum foil you would buy?

1. Aluminum foil - length 10m , price 52 dinars, no box, see-through foil wrapping
2. Aluminum foil - length 10m , price 60 dinars, in box
3. Aluminum foil - length 10m , price 90 dinars, in box with the cutter

Consumers got three products to choose from, there were the same length, and the difference was in price and packaging. The goal was to see what is most important, the price or the packaging and to see whether consumers are willing to pay the price which SZR Alcakov will have in stores for different wrapping. The price for 10m without box is possible future SZR Alcakov price. And two others are prices that will be selling price at the market if there were in stores. This question is also used to compare wrapping, price, usage of aluminum foil with place of buying and brand loyalty. Also this question is used to compare it with demographics, like does it has difference between man and women in buying or income which foil to buy.

7. Demographic questions

The demographic question was sex (male, female), income, age (18 and older), marriage status and number of children that live in household.

5. Strategy 1 - Change of the type of wrapping for household aluminum foil products

5.1 Data analysis of consumer preference

This research had several main goals:

1. Who are the consumers?
2. When do consumers buy and use household aluminum foil?
3. What are the most recognizable brands and their satisfaction rating?
4. What type of wrapping do consumers prefer for household aluminum foil?

The research was conducted on 300 respondents, where location where consumers buy household aluminum foil was the most important criteria. The number of questionnaires for each store depended on market share in total sales of pieces in Belgrade of household aluminum foil.

TABLE 4 LOCATION OF BUYING HOUSEHOLD ALUMINIUM FOIL

Where do you buy household aluminum foil?

	Frequency		Percent	Cumulative Percent
Tempo, Maxi, Pekabeta	120		40.0	40.0
Idea	68		22.7	62.7
Merkator-Rodic	45		15.0	77.7
Vero	7		2.3	80.0
Neighborhood store	60		20.0	100.0
Total	300		100.0	

Because 40% of total sales²⁴ of household aluminum foil comes from Delta group stores, in total amount of questionnaires, there were 40% or of questionnaires or 120 from 300 where consumers answered that this is the place where they most frequently buy household aluminum foil. This methodology was used for each supermarket chain.

The second biggest market share, in 2009, had Idea supermarket with 22.7% or 68 questionnaires. Third were local neighborhood stores with 60 questionnaires or 20%. Fourth was Merkator- Rodic group of supermarket stores with 45 questionnaires or 15% and Vero supermarket stores with 7 questionnaires or 2.3%.

²⁴ Data from sales is in appendix

TABLE 5- SEX OF RESPONDENTS

Sex

		Frequency	Percent	Cumulative Percent
Valid	Male	34	11.3	11.3
	Female	266	88.7	100.0
	Total	300	100.0	

From total 300 respondents, there were 266 women who buy household aluminum foil or 88.7% and 34 man or 11.3 %. We can see that majority of consumers of household aluminum foil are women with more than $\frac{3}{4}$.

TABLE 6-AGE OF RESPONDENTS

Age

		Frequency	Percent
	18-25	16	5.3
	26-35	62	20.7
	36-45	103	34.3
	46-55	65	21.7
	More than 55	54	18.0
	Total	300	100.0

Table 6 shows that there is no majority group in age. The demand of household aluminum foil is almost evenly divided between respondents. The largest category is from 36 to 45 years old with 34.3 % share. Second biggest category is divided between two categories: one was from 26 – 35 years old (20.7 %) and another from 46-55 years old (21.7%). Two smallest categories are groups from 11-25 years old (5.3%) and group with 55 years old and more (18%).

TABLE 7- PREFERENCE IN TYPES OF WRAPPING

When you had the possibility to choose which one you would pick?

	Frequency	Percent
Valid Aluminum foil in a box	191	63.7
Aluminum foil without the box	109	36.3
Total	300	100.0

When the respondents were asked the question of preference of wrapping types, table 7, shows that 63% or 191 of total 300 respondents said that they prefer household to be packed in a box, and only 36.3 % or 109 respondents said they prefer see-through foil wrapping.

This difference between the preferences can be seen from looking at this difference separately for each store:

TABLE 8- PREFERENCE IN TYPES OF WRAPPING AND LOCATION OF SHOPPING OF FOIL

	When you had the possibility to choose which one you would pick?						
	Aluminum foil in a box		Aluminum foil without the box		I don't know		
	Count	Row N %	Count	Row N %	Count	Row N %	
Where do you buy household aluminum foil?	Tempo, Maxi, Pekabeta	71	59.2%	49	40.8%	0	.0%
	Idea	45	66.2%	23	33.8%	0	.0%
	Merkator-Rodic	31	68.9%	14	31.1%	0	.0%
	Vero	6	85.7%	1	14.3%	0	.0%
	Neighborhood store	38	63.3%	22	36.7%	0	.0%
	I don't know	0	.0%	0	.0%	0	.0%

According to table 8, Tempo consumers prefer box - 59.2 % -40.8% and in this supermarket stores there is the smallest difference. In Idea supermarket stores and local neighborhood stores is third largest. The ratio 66.2% - 33.8 % towards box packaging is in Idea and in local neighborhood stores is 63.3% to 36.7% towards box packaging. The second biggest difference for preference in wrapping is Merkator – Rodic stores with 68.9% for packaging into see-through foil and 31.1 % for packaging into see-through foil. The biggest difference is in Vero supermarket stores with 85.7% to 14.3% towards box wrapping.

TABLE 9- OFFERED PRICES AND LOCATION OF SHOPPING OF FOIL

	Please chose which type of household aluminum foil would you buy?			
	Aluminum foil - length 10 m , price 70 dinars, in box with the cutter	Aluminum foil - length 10 m , price 60 dinars, in box	Subtotal	Aluminum foil - length 10 m , price 52 dinars, no box wrapping
	Count	Count	Count	Count
	Where do you buy household aluminum foil?			
Tempo, Maxi, Pekabeta	15	56	71	49
Idea	4	40	45	23
Merkator-Rodic	5	27	31	14
Vero	1	4	5	2
Neighborhood store	3	33	36	24
I don't know	0	0	0	0

When consumers had the possibility to choose from offered prices, the structure changed between box and foil wrapping. For Vero there was a change in 1 respondent or 0.3% and there were two respondents in local neighborhood stores that picked price to be more important to them than their preference of type of wrapping.

The real proportion of percentages of consumers that prefer box or see-through foil as a type of wrapping is:

62.67% box wrapping - 37.33 % foil wrapping

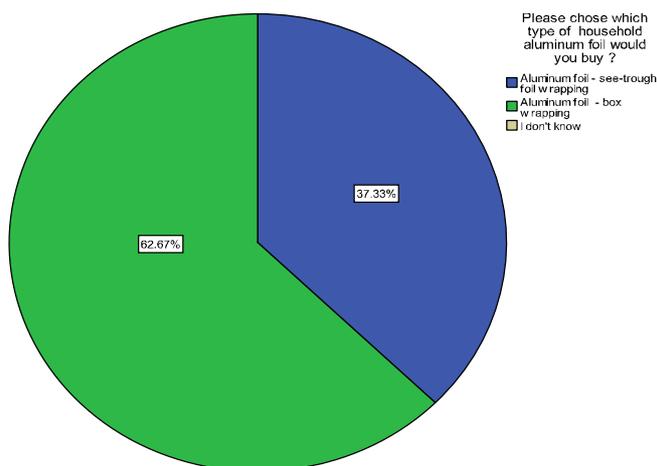


FIGURE 1- PROPORTION OF PREFERENCE OF TYPES OF WRAPPING

SZR Alcakov sells its products in all supermarket stores except in Delta group stores. If the results from Delta group supermarket stores were excluded, we come to a conclusion that from total 300 respondents, 180(60%) were from Idea, Merkator- Rodic, Local neighborhood stores and Vero. We conclude that the ratio is bigger when we exclude Delta group. It is 117 respondents or 65% towards box wrapping and 35% or 63 respondents towards foil wrapping.

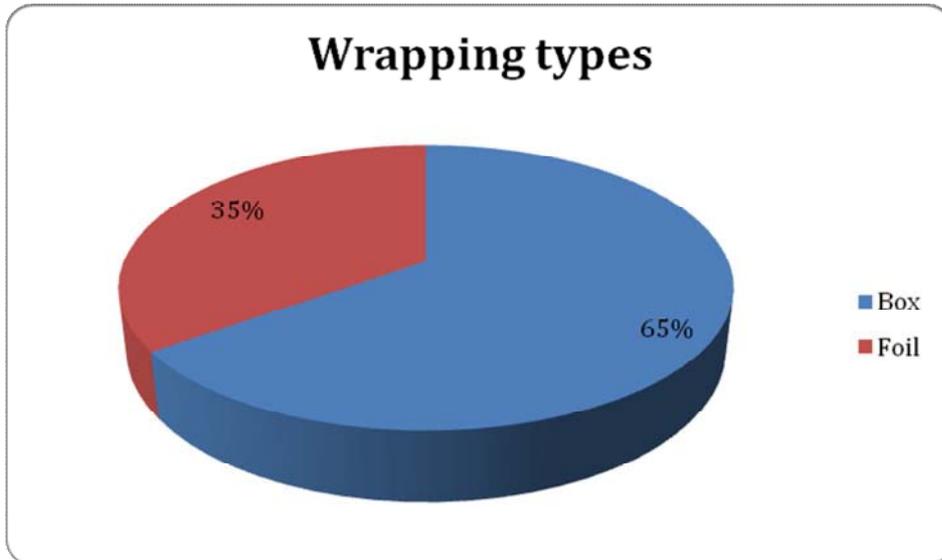


FIGURE 2 – PROPORTION OF PREFERENCE OF TYPES OF WRAPPING WITHOUT DELTA GROUP CONSUMERS

From table 7, we can see the preference towards additional cutter for foil.

TABLE 10 – PREFERENCE OF CUTTER OF FOIL

Rate the importance of the cutter of the aluminum foil that comes with the box?

	Frequency	Percent
Valid		
Generally it is not important, I don't care	7	3.72
It is not important	63	33.51
It is neither important nor not important to me.	33	17.55
It is important	70	37.23
It is very important	15	7.98
Total	188	100.00
Missing		
System	112	
Total	300	

Table 10 and 11 shows us that from respondents who chose box wrapping(188), 103 respondents or 55% are indifferent towards cutter for aluminum foil and 85 or 45% have opinion that is important to them that household aluminum foil has the cutter on the box. When they got the possibility to pick products with prices only 28 respondents or 15% were

willing to pay the price of cutter. When we compare this number to total amount of respondents we calculate 9.33% of total consumers, which proves why there is no household aluminum foil product with cutter at the market.

TABLE 11 – PREFERENCE OF CUTTER AND OFFERED PRICES OF PRODUCTS

	Please choose which type of household aluminum foil would you buy?			
	Aluminum foil - length 10 m , price 60 dinars, in box	Aluminum foil - length 10 m , price 70 dinars, in box with the cutter	Subtotal	Aluminum foil - length 10 m , price 52 dinars, no box wrapping
	Count	Count	Count	Count
	When you had the possibility to choose which one you would pick?	160	28	188
Aluminum foil without the box	0	0	0	109
I don't know	0	0	0	0

The usage of aluminum foil is very stable. Most users of household aluminum foil buy foil once a month or 50% of total respondents. Respondents who buy on every 2-3 months represent 19% and 12.7 % buys 3-4 times a month. There are also 13% of total respondents that don't know the right answer on the question when they buy aluminum foil.

TABLE 12- TIMELINE OF BUYING HOUSEHOLD ALUMINUM FOIL

How often do you buy household aluminum foil for your household?

	Frequency		Percent	Cumulative Percent
3-4 times a month	38		12.7	12.7
Once a month	150		50.0	62.7
Once every 2-3 months	57		19.0	81.7
Less than once in 3 months	16		5.3	87.0
I don't know, I buy when I need it.	39		13.0	100.0
Total	300		100.0	

Comparing the preference of type of packaging we can see that in most cases respondents prefer more box wrapping instead see through wrapping.

Consumers who buy household aluminum foil 3-4 times a month (30-8 or 79%-21%) prefer more wrapping in a see-through foil and the ones that buy once every 2-3 months (49-8 or 86%-14%) and more rarely once in three months (15-1 or 94%-6%) prefer almost absolutely box wrapping. The ones that don't know when they mostly buy prefer box wrapping 36-3 or 92%-8% towards box wrapping.

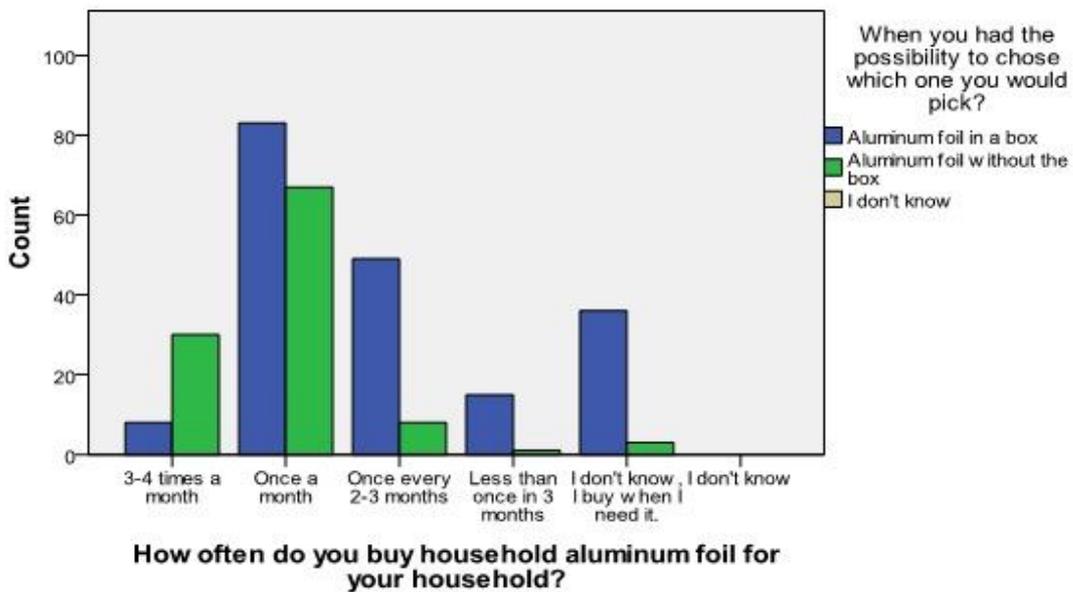


FIGURE 3- TIMELINE OF BUYING HOUSEHOLD FOIL AND PREFERENCE OF TYPES OF WRAPPING

Respondents who buy household aluminum foil once a month are almost equal in percentage for preference. Twenty eight percent of total respondents prefer box wrapping and household aluminum foil wrapped in a see-through foil prefer 22% of total respondents.

TABLE 13- TIMELINE OF BUYING AND USING HOUSEHOLD ALUMINUM FOIL

		How often do you buy household aluminum foil for your household?											
		3-4 times a month		Once a month		Once every 2-3 months		Less than once in 3 months		I don't know, I buy when I need it.		I don't know	
		Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
How often do you use aluminum foil in your household?	Every day	35	92.1%	41	27.3%	1	1.8%	0	.0%	1	2.6%	0	.0%
	Few times a week	1	2.6%	77	51.3%	25	43.9%	3	18.8%	8	20.5%	0	.0%
	Few times a month	2	5.3%	31	20.7%	29	50.9%	13	81.3%	23	59.0%	0	.0%
	Less than 1 time a month	0	.0%	1	.7%	2	3.5%	0	.0%	7	17.9%	0	.0%
	I don't know	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%	0	.0%

In table 13, there is comparison how many times people use aluminum foil, how many times people buy aluminum. We come to conclusion that 92.1 percent of respondents who buy foil 3-4 times a week use household aluminum foil every day. Respondents who buy foil once a month, mostly use it few times a week(43.9% of respondents) and few times a month(50.9% of respondents), and the ones who buy on 2-3 month and more, use household aluminum foil mostly on a few times a month basis. Also respondents who don't know when they buy household aluminum foil use it mostly few times a month.

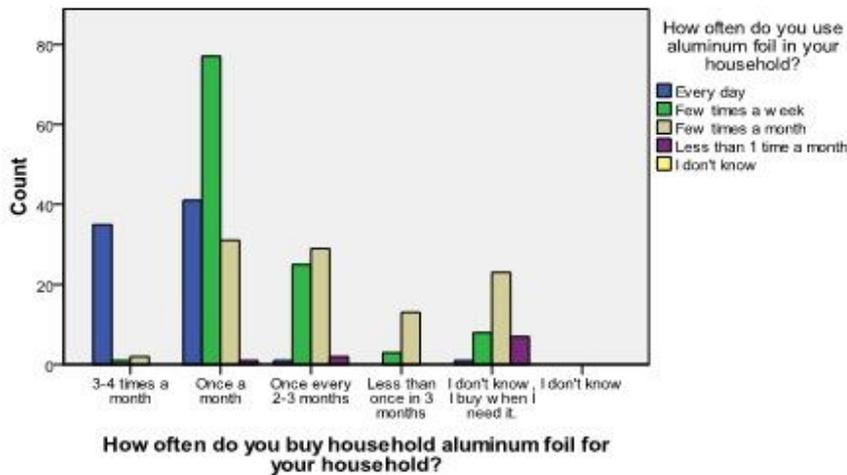


FIGURE 4-USAGE OF HOUSEHOLD ALUMINUM FOIL AND TIMELINE OF BUYING

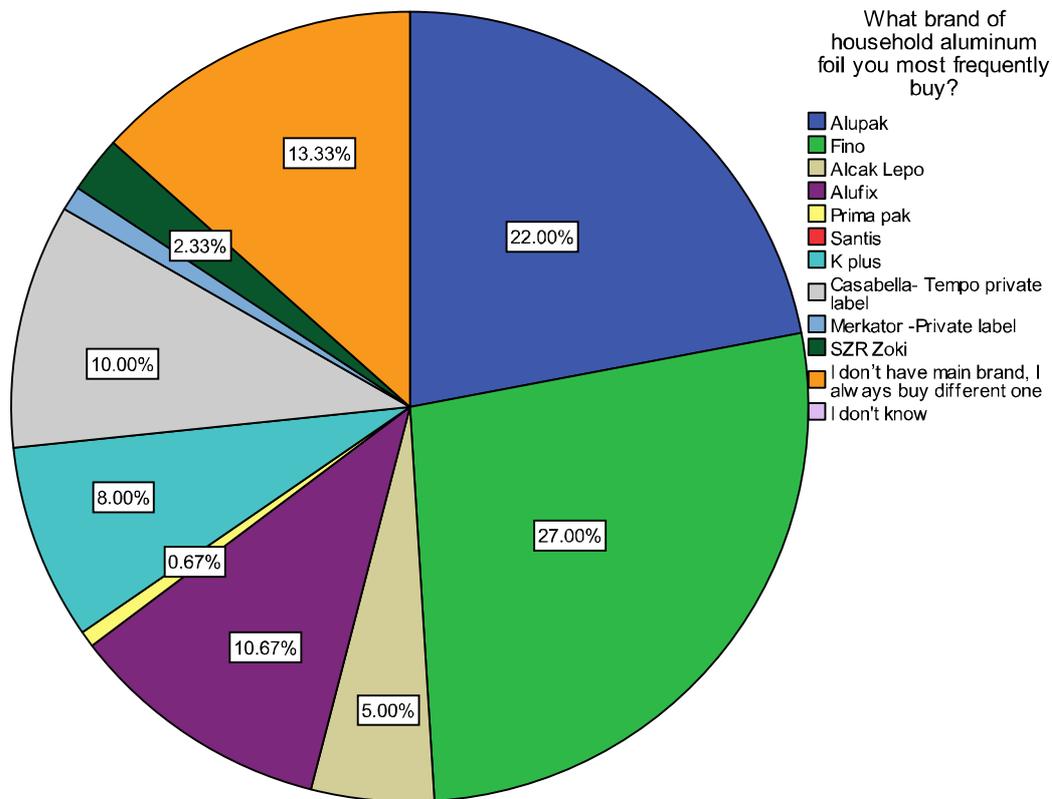


FIGURE 5- BRAND USAGE

Figure 5 shows that from total number of respondents the biggest percentage of users use "Fino" household aluminum foil with 27%. Second by market percentage is "Alupak" users with 22%, and then we have 13.3% of users that don't know that foil they use. "Alufix" users are 10.7% of total number of respondents and Delta private label users (Casabella) are 10% of all respondents. The low percentage of users of total number of respondents belong to "Alcak Lepo" – 5%, Idea private label 8% and SZR Zoki 2.3% of total number of respondents.

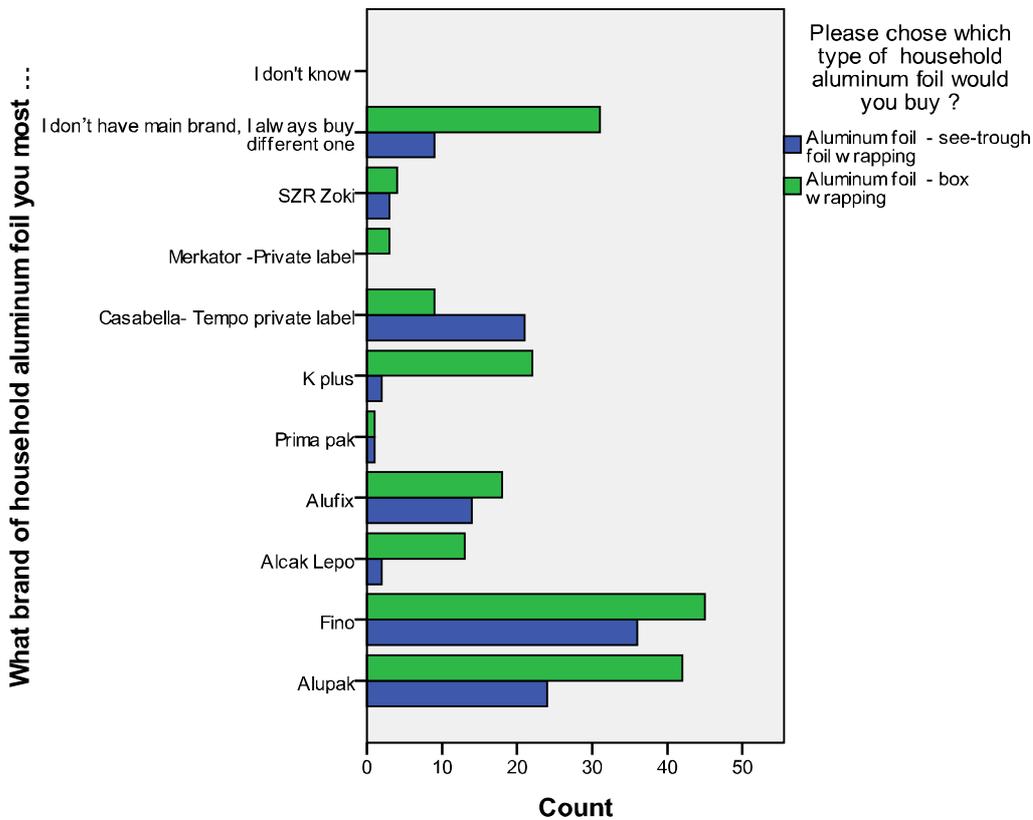


FIGURE 6²⁵ BRAND USAGE AND TYPES OF WRAPPING

The comparison of brand and wrapping preference in figure 6, with the analysis of data got from gathered questionnaires, show that users of "Alupak" household foil represent 22.0% of total respondents and they prefer more box wrapping (63.6%) than see-through foil wrapping (36.4%). Users of "Fino" household foil prefer more box wrapping (55.6%) than see-through foil wrapping (44.4%) and they represent 27% of total respondents. The three quarters of all users of "Alcak Lepo", "K plus" and users that do not know what brand of household aluminum foil they use consumers prefer more box wrapping more see-through foil wrapping. Only users of Delta group private label have different preference. They prefer more see-through foil wrapping. Seventy percent of all total users of Delta group private label (Casabella) prefer see through foil and thirty percent of total users of Casabella prefer box wrapping.

²⁵ Data for this chart is in appendix

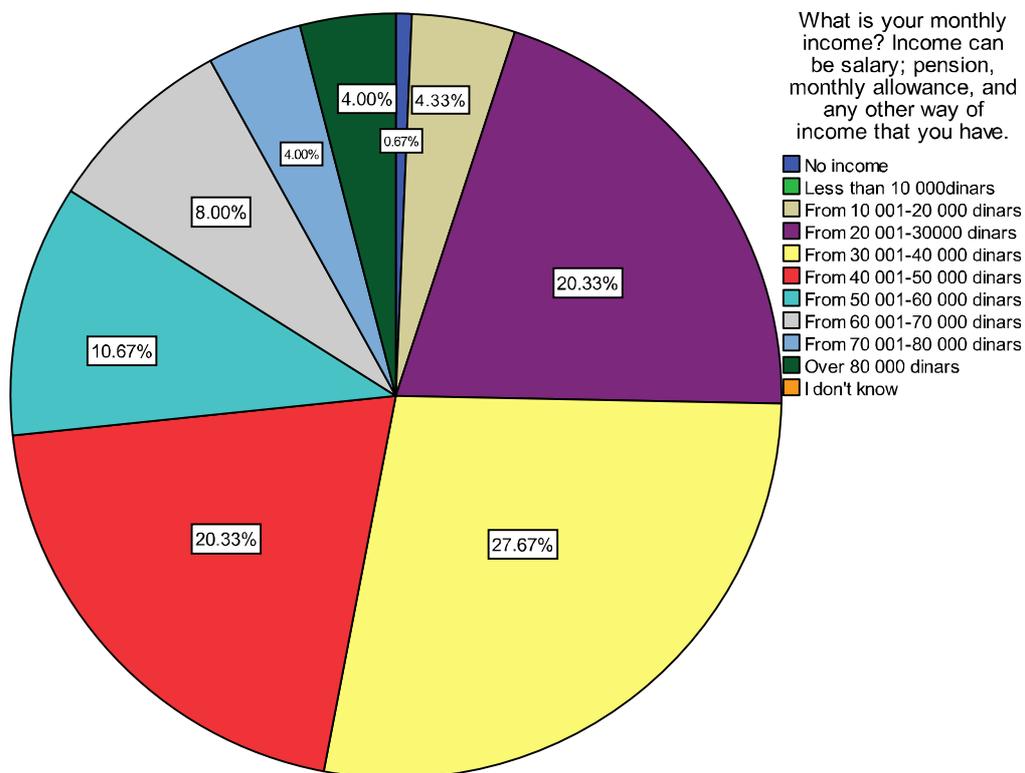


FIGURE 7- MONTHLY INCOME

Figure 7, represents monthly income of the number of total respondents. The biggest percentage of respondents belong to users who have between RSD 30 000 to 40 000 or between EUR 300 to 400 monthly income – 27.67%. Users that have 20 000 to 30 000 RSD (200 to 300 EUR) and 50 000 to 60 000 RSD (500 to 600 EUR) represent 40.66% of total number of respondents or 20.33% each. Users that have monthly income 50 000 to 60 000 RSD (500 to 600 EUR) represent 10.67% of total number of respondents. Users that have monthly income 60 000 to 70 000 RSD (600 to 700 EUR) represent 8% of total number of respondents. Users that have more than 70 000 RSD (700 EUR) represent 8% of total respondents.

From all the respondents that chose box wrapping the biggest percentage is from respondents that have 300 to 500 EUR which represent 59.7% from total number that chose box wrapping and second group is from 500 and more represent 32.7% .The biggest percent of respondents that choose see-through foil wrapping have 200 to 400 EUR. They represent 62.5% from total number that chose see through foil.

TABLE 14MONTHLY INCOME AND TYPES OF WRAPPING

	Please chose which type of household aluminum foil would you buy ?					
	Aluminum foil - box wrapping		Aluminum foil - see-through foil wrapping		Total	
	Row N %	Column N %	Row N %	Column N %	Count	
What is your monthly income? Income can be salary; pension, monthly allowance, and any other way of income that you have.	No income	50.0%	.5%	50.0%	.9%	2
	Less than 10 000dinars	.0%	.0%	.0%	.0%	0
	From 10 001-20 000 dinars	30.8%	2.1%	69.2%	8.0%	13
	From 20 001-30000 dinars	41.0%	13.3%	59.0%	32.1%	61
	From 30 001-40 000 dinars	59.0%	26.1%	41.0%	30.4%	83
	From 40 001-50 000 dinars	72.1%	23.4%	27.9%	15.2%	61
	From 50 001-60 000 dinars	75.0%	12.8%	25.0%	7.1%	32
	From 60 001-70 000 dinars	83.3%	10.6%	16.7%	3.6%	24
	From 70 001-80 000 dinars	75.0%	4.8%	25.0%	2.7%	12
	Over 80 000 dinars	100.0%	6.4%	.0%	.0%	12
Total	62.7%	100.0%	37.3%	100.0%	300	

Figure 8 represents the income of respondents that filled in questionnaires compared with the preference of types of wrapping. There is a conclusion that respondents that have less than 30 000 RSD (300 EUR) monthly income prefer more see-through foil wrapping and that respondents that have more than 300 EUR prefer more box wrapping and that the rise in monthly income coincides the reason why the difference between box and foil wrapping widens towards box wrapping.

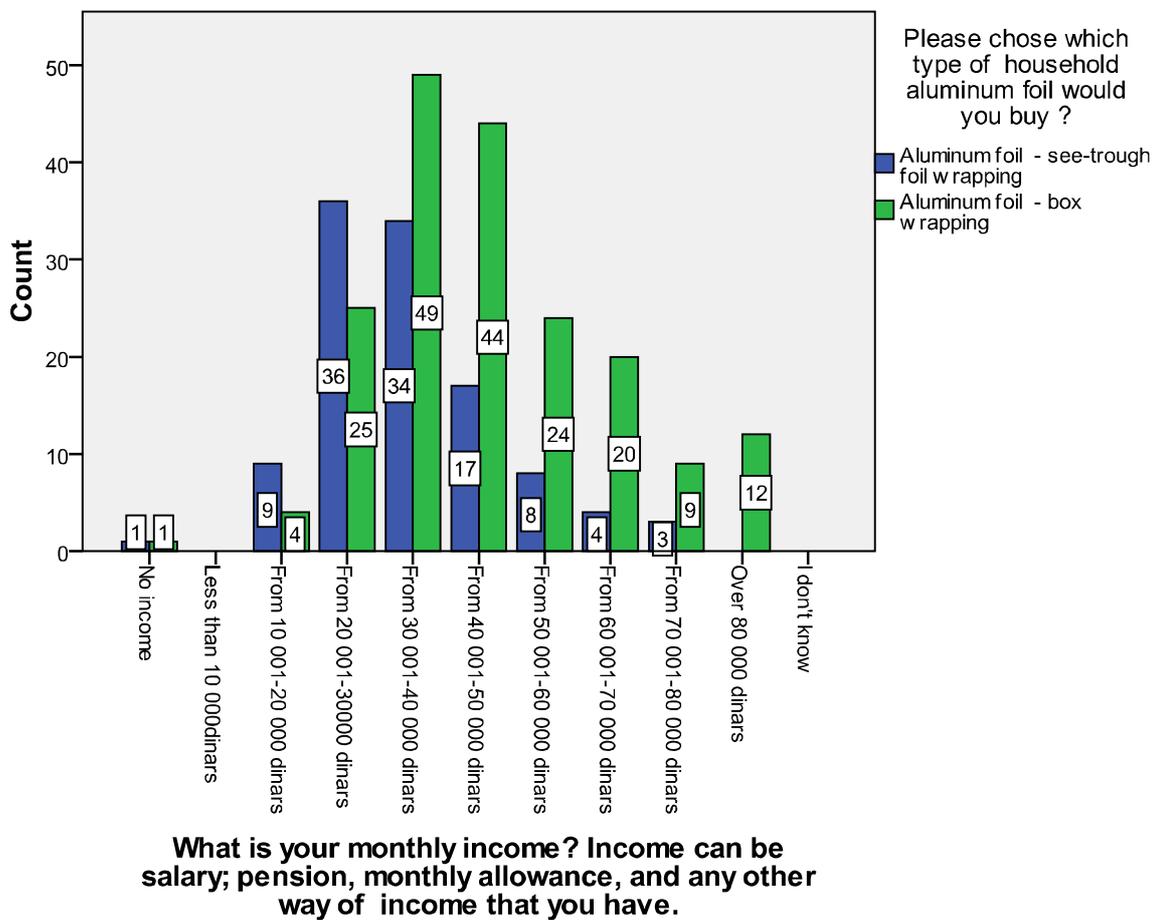


FIGURE 8 – MONTHLY INCOME AND TYPES OF WRAPPING

The data compiled from all respondents, which was the goal to show the preference of all consumers at the market of aluminum foil, can be compared with the data of sales from Idea supermarket.

TABLE 15 – SALES (PIECES) IN IDEA SUPERSTORE

Brands	Sales(pieces) in 2009	%
K plus	133,880	41.74%
Fino	64,736	20.18%
Alupak	60,574	18.89%
ALUFIX	12,789	3.99%
ZOKI SZR	8,555	2.67%
Alcak Lepo	30,495	9.51%
Prima pak	9,696	3.02%
Total sales	320,725	1

The brands “K plus” and “Prima pak” are brands that have a box wrapping, the rest of brands that are sold in Idea supermarkets have a see-through foil wrapping.

From all total sales in Idea supermarket, which we can see from the table 15, 44.77% represent sold pieces of household aluminum foil packed in a box wrapping. Comparing that information with information that was got from analysis of preference of consumers of household aluminum foil where consumers prefer more box wrapping influence that SZR Alcakov is considering to change wrapping of its household aluminum foil products.

5.2 Expected profit from changing the packaging

Since its founding SZR Alcakov set the selling price by comparing it to competition’s price. Their goal was to be cheapest or second cheapest seller at the market.

After couple of meetings with its buyers, it came to conclusion that SZR Alcakov can control the selling retail price. SZR Alcakov can give 15% discount on selling price and the buyers will add 4-5 RSD on the selling price.

When SZR Alcakov decided to set the price for 8m of household aluminum foil it compared it with:

- 1- Alu – Extra 8m– RSD 61²⁶
- 2- PL Delta group 10m- RSD 56
- 3- PL IDEA 10m – RSD 49
- 4- Alu pak 10m – RSD 59

²⁶ All the prices of all competition are in the appendix

The owners of SZR Alcakov decided that the retail price should not be higher than RSD 56-57. Because the retailers will add RSD 4-5 on SZR Alcakov selling price, and because the owners wanted to be at least RSD 2-3 difference to "Alu pak"(Because Idea, Delta group sells its PL in their stores and PL of Delta group and "Alu pak" sell it to all supermarkets in Belgrade) the selling price will be RSD 51.5 for "Alcak lepo" 8m.

The price for "Alcak Lepo" 5m was set by comparing the price of "Gold" foil which was around RSD 43 and price of 8m "Alcak lepo". Because Gold has very small market share , SZR Alcakov took that in account and allow set a higher price than Gold, also wanted to have at least RSD 12 difference towards 5m and 8m; like it did in last 7 years. The price is set on RSD 39.5 or to be in retail stores at least RSD 44-45.

The price of 15m was set by comparing:

- 1- PL Merkator 15 m– RSD 100
- 2- Gold 15m – RSD 115
- 3- PL Idea – 20m – RSD 91
- 4- Alu pak 20m – RSD 109

The lowest price for 15 m is from PL Merkator, but the price for 20m of PL Idea and price of Alu pak 20m influenced the decision that the selling price should not be higher than RSD 102. First they could not compare with price of Private Label of IDEA which is very low, but it wanted to be in a price range of Private Label of Merkator and to have lower price than "Alu pak", at least RSD 9-10. Because retailers add RSD 4-5 to the price, SZR Alcakov decided to sell its "Alcak Lepo" 15m for RSD 96.5; where the price in stores will be around RSD 101-102.

The price for 30m was set by comparing:

- 1- PL Idea 30m– RSD 141
- 2- SZR Zoki 30m – RSD 148
- 3- Alu Extra 30m – RSD 150
- 4- Alufix 30m- RSD 154

The price was set to be between private label of Idea and SZR Zoki. The owners decided that the price should not go higher than RSD 145. This influenced that the selling price for "Alcak Lepo" be RSD 140.5, so the price in retail stores will be around RSD 145-146.

The sales trends of SZR Alcakov brand of household aluminum foil is hard to predict. When we look at the trends²⁷ we can see that it is not possible to predict the sales by the past trends for packaging see through foil. The lack of data and availability for only 1 year of sales data is another reason also is why SZR Alcakov can not predict what the sales will be. For comparing the profitability of changing of the packaging the best way is to compare it with the same level of sales in 2009.

²⁷ All the trends for 2009 are in appendix

TABLE 16 CHANGE OF PACKAGING – PROFIT ANALYSIS- SAME LEVEL OF SALES

Product	Alcakov brand	Alcakov brand	Idea brand with box	Alcakov brand	Idea brand with box	Idea brand with box	Alcakov brand	Total
Length of foil in meters	5	8	10	15	20	30	30	
Total cost (RSD)	423*10 ³	969*10 ³	0	172*10 ³	0	0	297*10 ³	1,861*10 ³
Cost of product(RSD)	16.61	22.85	30.06	37.39	50.84	71.62	68.56	
Cost w/o packaging(RSD)	16.27	22.50	26.66	37.05	47.44	68.22	68.22	
Cost of packaging (RSD)	0.34	0.34	3.4	0.34	3.40	3.40	0.34	
Cost of the box for packaging(RSD)	6	6		6			6	
New cost with box packaging (RSD)	22.27	28.50		43.05			74.22	
Projected amount sold (pieces)	19*10 ³	34*10 ³		4*10 ³			4*10 ³	61*10 ³
Discounted average selling price (RSD)	31.56	41.15		77.10			112.26	
Average selling price reduced for 15% discount (RSD)	33.58	43.78		82.03			119.43	
Average selling price (RSD)	39.5	51.5		96.5			140.5	
Projected discounted revenue (RSD)	600*10 ³	1,399*10 ³		308*10 ³			449*10 ³	2,756*10 ³
Projected revenue (RSD)	638*10 ³	1,488*10 ³		328*10 ³			478*10 ³	2,932*10 ³
Projected loss from discounting (RSD)	38*10 ³	89*10 ³		20*10 ³			29*10 ³	176*10 ³
Projected profit(RSD)	177*10 ³	430*10 ³		136*10 ³			152*10 ³	895*10 ³
Profit margin per brand	29%	31%		44%			34%	

The change of the packaging will influence the cost of household aluminum foil to increase by 6 RSD, because this is the price that SZR Alcakov can buy box for wrapping.

The selling price will have additional discount of 15%, and this will be the way that SZR Alcakov will try to have at least some influence on the price.

With calculation where buyers will pay at the same average days like they did in 2009, the revenue will be discounted with interest rate of 8.5%.

From comparing profit margins of all products it comes to conclusion that only Alcak lepo 30m can increase its profit margin from 33 to 34, but profit margins of "Alcak Lepo" 5m, 8m and 15 cannot be increased and the levels of price per product cannot be increase for the same percentage as the increase of the cost per products.

TABLE 17- COMPARASION OF PROFIT- SAME LEVEL OF SALES

Profit 2009	RSD 852*10 ³
Profit 2010	RSD 895*10 ³
Difference	RSD 43 *10 ³

When the profit from 2009 is subtracted from the expected profit for 2010, we can calculate that with this strategy profit might be higher approximately RSD 43 thousand in 2010 or around 5 %, if the sales are around the same level as 2009 and all the parameters stay the same as in 2009.

TABLE 18- CHANGE OF PACKAGING – PROFIT ANALYSIS- LEVEL OF SALES IS 10% LESS

Product	Alcakov brand	Alcakov brand	Idea brand with box	Alcakov brand	Idea brand with box	Idea brand with box	Alcakov brand	Total
Length of foil in meters	5	8	10	15	20	30	30	
Total cost (RSD)	401*10 ³	884*10 ³		129*10 ³			297*10 ³	1711*10 ³
Cost of product(RSD)	16.61	22.85	30.06	37.39	50.84	71.62	68.56	
Cost w/o packaging(RSD)	16.27	22.50	26.66	37.05	47.44	68.22	68.22	
Cost of packaging (RSD)	0.34	0.35	3.40	0.34	3.40	3.40	0.34	
Cost of the box for packaging(RSD)	6	6		6			6	
New cost with box packaging (RSD)	22.27	28.50		43.05			74.22	
Projected amount sold (pieces)	18*10 ³	31*10 ³		3*10 ³			4*10 ³	56*10 ³
Discounted average selling price (RSD)	31.56	41.15		77.10			112.26	
Average selling price reduced for 15% discount (RSD)	33.58	43.78		82.03			119.43	
Average selling price (RSD)	39.5	51.5		96.5			140.5	
Projected discounted revenue (RSD)	568*10 ³	1,276*10 ³		231*10 ³			449*10 ³	2524*10 ³
Projected revenue (RSD)	604*10 ³	1,357*10 ³		246*10 ³			478*10 ³	2694*10 ³
Projected loss from discounting (RSD)	36*10 ³	81*10 ³		15*10 ³			29*10 ³	161*10 ³
Projected profit(RSD)	167*10 ³	392*10 ³		102*10 ³			152*10 ³	813*10 ³
Profit margin	29%	31%		44%			34%	

Having reduced the amount of sold pieces by 10 % and having calculated expected profit for 2010, we come to conclusion that the expected profit for 2010 will be less than 2009 by around RSD 39 thousand or EUR 390 hundred or 4.5% decrease.

TABLE 19- COMPARASION OF PROFIT –LEVEL OF SALES IS 10% LESS

Decrease 10%	
Profit 2009	RSD 852*10 ³
Profit 2010	RSD 813*10 ³
Difference	RSD -39*10 ³

TABLE 20- CHANGE OF PACKAGING – PROFIT ANALYSIS- LEVEL OF SALES IS 10% INCREASE

Product	Alcakov brand	Alcakov brand	Idea brand with box	Alcakov brand	Idea brand with box	Idea brand with box	Alcakov brand	Total
Length of foil in meters	5	8	10	15	20	30	30	
Total cost (RSD)	490*10 ³⁰	1055*10 ³	0	172*10 ³	0	0	297*10 ³	2014*10 ³
Cost of product(RSD)	16.61	22.85	30.06	37.39	50.84	71.62	68.56	
Cost w/o packaging(RSD)	16.27	22.50	26.66	37.05	47.44	68.22	68.22	
Cost of packaging (RSD)	0.34	0.35	3.40	0.34	3.40	3.40	0.34	
Cost of the box for packaging(RSD)	6	6		6			6	
New cost with box packaging (RSD)	22.27	28.50		43.05			74.22	
Projected amount sold (pieces)	22*10 ³	37*10 ³	0	4*10 ³	0	0	4*10 ³	67*10 ³
Discounted average selling price (RSD)	31.56	41.15	0.00	77.10	0.00	0.00	112.26	
Average selling price reduced for 15% discount (RSD)	33.58	43.78		82.03			119.43	
Average selling price (RSD)	39.50	51.50		96.50			140.50	
Projected discounted revenue (RSD)	694*10 ³	1,522*10 ³		308*10 ³			449*10 ³	2,973*10 ³
Projected revenue (RSD)	739*10 ³	1,620*10 ³		328*10 ³			478*10 ³	3,165*10 ³
Projected loss from discounting (RSD)	44*10 ³	97*10 ³		20*10 ³⁰			29*10 ³	190*10 ³
Projected profit(RSD)	204*10 ³	468*10 ³		136*10 ³			152*10 ³	960*10 ³
Profit margin	29%	31%		44%			34%	

Having increased the amount of sold pieces by 10%, table 20 shows that expected profit for 2010 will be higher than in 2009 by RSD 108 thousand or approximately EUR 1 thousand or 13%. This calculation is taking into an account that the increase will be 10% and when we compare it with data of the analysis of the questioner, where from all respondents who buy in the stores where SZR Alcakov sells its products (65% prefer more box wrapping), we see that possibility for the increase of sales are much larger than only 10 % increase.

TABLE 21- COMPARASION OF PROFIT –LEVEL OF SALES IS 10% INCREASE

Increase 10%	
Profit 2009	RSD 852*10 ³
Profit 2010	RSD 960*10 ³
Difference	RSD 108*10 ³

If the order at the end of the year is more than 70 thousand pieces for the box, Papir print will allow the reduction of the price for the box for RSD 1, and the price will be RSD 5 instead of RSD 6. This means that SZR Alcakov would need to have at least 15% increase of sales in amount of pieces.

TABLE 22 -CHANGE OF PACKAGING – PROFIT ANALYSIS- LEVEL OF SALES IS 15% INCREASE

Product	Alcakov brand	Alcakov brand	Idea brand with box	Alcakov brand	Idea brand with box	Idea brand with box	Alcakov brand	Total
Length of foil in meters	5	8	10	15	20	30	30	
Total cost (RSD)	489*10 ³	1073*10 ³		168*10 ³			366*10 ³	2,096*10 ³
Cost of product(RSD)	16.61	22.85	30.06	37.39	50.84	71.62	68.56	
Cost w/o packaging(RSD)	16.27	22.50	26.66	37.05	47.44	68.22	68.22	
Cost of packaging (RSD)	0.34	0.35	3.40	0.34	3.40	3.40	0.34	
Cost of the box for packaging(RSD)	5	5		5			5	
New cost with box packaging (RSD)	21.27	27.50		42.05			73.22	
Projected amount sold (pieces)	23*10 ³	39*10 ³		4*10 ³			5*10 ³	71*10 ³
Discounted average selling price (RSD)	31.56	41.15		77.10			112.26	
Average selling price reduced for 15% discount (RSD)	33.58	43.78		82.03			119.43	
Average selling price (RSD)	39.50	51.50		96.50			140.50	
Projected discounted revenue (RSD)	726*10 ³	1,605*10 ³		308*10 ³		0	561*10 ³	3,200*10 ³

Projected revenue (RSD)	772*10 ³	1,707*10 ³		328*10 ³		0	597*10 ³	3,404*10 ³
Projected loss from discounting (RSD)	46*10 ³	102*10 ³⁰		20*10 ³⁰		0	36*10 ³	204*10 ³
Projected profit(RSD)	237*10 ³	532*10 ³		140*10 ³⁰		0	195*10 ³	1,104*10 ³
Profit margin	33%	33%		45%			35%	

This change of price will influence the rise of profitability margin for all products. For Alcak lepo 5m -4%, for Alcak lepo 8m -2%, for Alcak lepo 15m -1% and for Alcak lepo 30m -1%.

TABLE 23 -COMPARASION OF PROFIT – LEVEL OF SALES IS 15% INCREASE

Increase 15%	
Profit 2009	RSD 852*10 ³
Profit 2010	RSD 1,104*10 ³
Difference	RSD 252*10 ³

Table 23, shows that an increase of 15% of sales, will reduce cost, increase a profitability margin and cause higher profit compared to 2009 for about RSD 252 thousand or around EUR 2.5 thousand or 30 % increase of profit.

When comparing this strategy with the same level of sales, conclusion is that the profit will not increase by much. This strategy was not enough for owners of SZR Alcakov and they wanted to see the profit based on how much they can earn from taking the credit to pay for material in advance and get 20% discount on cost on material, despite the fact that since its founding SZR Alcakov didn't take any credit from the bank.

6. Strategy 2 -Reducing production cost

6.1 Production process

The type of production of household aluminum foil is JIT (Just in time). Period from order to transport is maximum 36 hours. Time from order to transport can be from minimum 3 hours (for small quantities) to maximum 36 hours (for big quantities)

The order, production, transport process has several steps:

1. Buyer orders a product
2. At that moment products are starting to be produced
3. When production is finished, they are transported to buyers.

There are no large quantities of supplies of finished products and no large quantity of supplies of production materials. The company can in maximum 36 hours produce and transport any type of ordered goods to its buyers.

Production of household aluminum foil has a number of steps:

1. Putting foil around a paper roll
2. Cutting the length of aluminum foil , dependable of the length (5m, 10m, 15m, 20m, 30m)
3. Wrapping this product in foil or box
4. Packing 50 products of household aluminum foil in transport bag.

Cost of production of household aluminum foil encompasses variable costs and fixed costs.

Variable costs are:

- Cost of aluminum foil (material)(suppliers Alu product, Kristal group, SMS trade)
- Paper roll to put foil on(supplier Gradac)
- Box for packaging(For K plus brand- supplier – Papir print)
- Foil for packaging(For Alcak Lepo band- Papir print)
- Bags for transport(supplier – Jedro Komerc)
- Salary for manufacturing workers
- Transportation of finished products to buyers(supplier – City express and own transport)

Fixed costs are:

- Amortization of the machine for production
- Rent(supplier – Milan Tamic)
- Electricity (supplier – EPS(Serbian Electro distribution)
- Salary for director
- Bookkeeping(MIR KD)

TABLE 24-COST PER PRODUCT FOR ALCAK LEPO IN 2009

	Alcak Lepo 5m RSD	Alcak Lepo 8m RSD	Alcak Lepo 15m RSD	Alcak Lepo 30m RSD
Cost for aluminum foil(material)	204.159,13	564.372,71	118.443,46	252.471,59
Paper roll to put foil on	25.545,00	44.135,00	4.940,00	5.265,00
Box for packaging				
Foil for packaging	6.779,39	11.713,00	1.311,03	1.397,28
Bags for transport	2.830,14	4.889,73	547,30	583,31
Salary for manufacturing workers	36.154,37	62.465,18	6.991,68	7.451,66
Transportation of finished products to buyers	13.526,81	23.370,75	2.615,87	2.787,97
Total variable expenses	288.994,84	710.946,37	134.849,35	269.956,82
Amortization	858,83	1.483,83	166,08	177,01
Rent	10.305,94	17.805,94	1.993,01	2.124,13
Electricity	2.576,49	4.451,49	498,25	531,03
Salary for director	20.611,89	35.611,89	3.986,01	4.248,25
Bookkeeping	3.091,78	5.341,78	597,90	637,24
Total fixed expenses	37.444,93	64.694,93	7.241,26	7.717,66
Total expenses	326.439,77	775.641,30	142.090,61	277.674,47
Cost of product(RSD)	16,61	22,85	37,39	68,56

By looking at the table 24 we can conclude that variable costs make most of the total expenses. Variable costs make up from 89% to 94%²⁸ of total expenses. This is mostly because of type of production and where most of the ordered material and variable cost depends on the amount of sold and produced goods.

From all variable expenses, cost of aluminum foil accommodates the biggest percentage of variable cost and also the biggest percentage of total expenses (62 %- 87%). Distribution of other cost depends if production is "Alcak lepo" brand or "K plus brand".

For the production of Alcak lepo brand, the second biggest expense is salary for workers (2%-11% of total expense), third is cost of paper roll to put foil on (1.90 – 7.90 of total expenses) and fourth is cost of transportation (1%-4%) and fifth is foil for packaging (0.50-2% of total expenses) and sixth is cost of transport bags (0.20%-0.80% of total expenses).

²⁸ All the percentages are in appendix

6.2 Analysis of Suppliers – Reduction of cost of Alu produkt

The biggest suppliers of SZR Alcakov are suppliers of aluminum foil. There are three companies from which SZR Alcakov buys from: Alu produkt, Kristal group, SMS trade. SMS trade wasn't a regular supplier. It was supplier from which in shortage of foil SZR Alcakov ordered for a much higher price. Second biggest supplier is supplier of foil and box for packaging of aluminum foil product called Papir print. The third biggest supplier is supplier of paper roll to put foil on called Gradac.

TABLE 25- PERCANTAGE OF EACH SUPLIER FOR TOTAL COST

Supplier	RSD	% of biggest suppliers	% of total
Alu produkt	5,459,036.10	69.20%	66.48%
Kristal group	786,288.00	9.97%	9.58%
SMS trade	565,504.00	7.17%	6.89%
City express	157,503	2.00%	1.92%
Gradac	297,440.00	3.77%	3.62%
Jedro komerc	32,953.50	0.42%	0.40%
Papir print	590,190.67	7.48%	7.19%
Total expenses of biggest suppliers	7,888,915.29	100%	
Total expense	8,275,512.60		

Alu produkt is a company that specializes in import of aluminum foil. They import mainly aluminum foil from Greece and Turkey.

From the beginning of its business in 2002, SZR Alcakov cooperates with this company. Alu produkt is the biggest supplier of SZR Alcakov and the cheapest supplier of aluminum foil in Serbia. In 2009, Kristal group joined the market and started to match Alu produkt with the low price which caused decrease in prices. From January 2009, price lowered from RSD 368.78 to the level of RSD 300 in December 2009.

From total amount of ordered foil there was 3,487 kg for Alcak lepo brand and 12 700 kg of foil for K plus brand.

Because of limitation it is possible to get data for 2007, 2008 and 2009 where data from 2009 is from SZR Alcakov data and data for 2008 and 2007 are from accounting of Alu produkt.

TABLE 26 – ORDERS OF ALUMINUM FOIL FOR PRODUCTION

Supplier	2007	2008	2009
Alu produkt(kg)	3,753	3,889	1,6187
Kristal group(kg)			2,520.9
SMS (KG)			253
Total kg for production of all brands	3,753	3,889	18,960.9
Total kg for production of Alcak lepo	3,753	3,889	3487
Total sold produced pieces of Alcak lepo		70,117	61,450

In this section there will be comparison between the expected value if there is normal ordering during the year from Alupak and if SZR Alcakov takes credit to pay to Alu produkt in advance and get discount of 20%.

Because SZR Alcakov didn't sell less than 3000 kg of aluminum foil, the owners will not order more than 3000 kg from Alu produkt to pay by credit.

1st situation – normal ordering – without taking credit for supply of aluminum foil

With comparison 2007, 2008, 2009 the orders for Alcak lepo were in average 1000 kg. This was enough for production 3.5 months in past period.

So with that we are predicting that we will order from Alu produkt in January, April, and August. The starting price for a kg is 300 RSD.

Because average days when SZR Alcakov paid to Alu produkt were 116 days we will use this number for discounting the first order (for the order in January and paying 116 days later). For the second order the number of days for discounting will be 3.5 months plus 116 days or 105+116 days = 221 days (for the order in April and paying 116 days later). For the third order there will be 7 months and 116 days or 212 +116 days or 328 days (for the order in August and paying 116 days later).

The interest for opportunity cost is 8.5 %

Formula which is used for discounting every order is

$$PV = \frac{FV}{1+i*t}$$

$$t = \frac{d}{365}$$

FV- Value that is discounted (Amount of payment to the Alu produkt or the bank)

i-Interest rate for opportunity cost which is 8.5%

t- Time period

d- Number of days

During the meeting at the beginning of the year, there were negotiations for an increase of price in the 3. quarter of the year. The conclusion was that the price for the third quarter can stay at the same level, increase or decrease.

The each amount will be discounted on the same day; 1st January.

1) If the price stays the same for all orders , RSD 300 per kg

TABLE 27- EXPECTED VALUE FOR ORDERING WHEN THE PRICE STAYS AT THE SAME LEVEL

Order	Amount in RSD	300,000	300,000	300,000
Total yr	days	365		
PMT in	days	116	221	328
	rate	0.085		
	1st order	2nd order	3rd order	
Discounted amount for each order	292,109.05	285,316.00	278,711.06	
Total discounted amount for the whole year				856,136.11

We can conclude from table 27 that total expected value of obligation for aluminum foil material if the price stays the same for all orders will be RSD 856,136.11 or EUR 8,561.

2) Scenario with RSD 20 increase , the price of 1kg in the third order is RSD 320

TABLE 28- EXPECTED VALUE FOR ORDERING WHEN THE PRICE INCREASES IN 3RD ORDER TO 320

Order	amount in RSD	300,000	300,000	320,000
Total yr	days	365		
PMT in	days	116	221	328
	rate	0.085		
	1st order(RSD)	2nd order(RSD)	3rd order(RSD)	Total (RSD)
Discounted amount for each order	292,109.05	285,316.00	297,291.79	
Total discounted amount for the whole year				874,716.85

Table 28 shows that the expected value that will need to be paid for aluminum foil is RSD 874,716.85 or EUR 8,747, if the price increases to RSD 320.

3) Scenario with RSD 40 increase, the price of 1kg in the third order is RSD 340

TABLE 29- EXPECTED VALUE FOR ORDERING WHEN THE PRICE INCREASES IN 3RD ORDER TO 340 RSD

Order	Amount in RSD	300,000	300,000	340,000
total yr	days	365		
PMT in	days	116	221	328
	rate	0.085		
	1st order(RSD)	2nd order(RSD)	3rd order(RSD)	Total(RSD)
Discounted amount for each order	292,109.05	285,316.00	315,872.53	
Total discounted amount for the whole year				893,297.58

Table 29 shows that the expected value that will need to be paid for aluminum foil is RSD 893,297.58 or 8,932 EUR, if the price increases to RSD 340.

4) Scenario with a decrease of RSD 20, the price of 1kg in the third order is RSD 280

TABLE 30- EXPECTED VALUE FOR ORDERING WHEN THE PRICE DECREASES IN 3RD ORDER TO 280 RSD

Order	Amount in RSD	300,000	300,000	280,000
Total yr	days	365		
PMT in	days	116	221	328
	rate	0.085		
	1st order(RSD)	2nd order(RSD)	3rd order(RSD)	Total(RSD)
Discounted amount for each order	292,109.05	285,316.00	260,130.32	
Total discounted amount for the whole year(3000kg)				837,555.37

This table shows us that total amount that will need to be paid RSD 837,555.37 or EUR 8,375 if the price decreases to RSD 280.

TABLE 31- EXPECTED VALUE FOR NORMAL ORDERING OF ALUMIUM GOIL FROM ALU PRODUKT

Total amount of obligation	Price in RSD for the third order	Probability %
893,297.58	340	0.1
874,716.85	320	0.3
856,136.11	300	0.45
837,555.37 ²⁹	280	0.15

At the yearly meeting with Alu produkt the changes of the price were discussed. The change of the price depends of the activity of the second biggest importer of aluminum foil, Kristal group. In 2009, Kristal group entered the market and influence the reduction of the price of aluminum foil dramatically in total market. The prices were reduced from RSD 360 to RSD 300 for Alu produkt. In 2010 Kristal group slowed down their aggressive campaign for the market share because they started to produce Private label for Idea supermarket store and for Delta group (Maxi). As a consequence, they are not interested in competing with Alu produkt for the market share as before. Expert's opinion is that the price will stay the same because they are estimating that current situation will stay the same in the third quarter. If Kristal group reduces its supply of aluminum foil at the market Alu produkt will increase its price to RSD 320 and probability will be 0.3 by the experts of MEMRB. If Kristal group decides to slowly and by third quarter back down from the market and stop selling the aluminum foil this will cause the increase of RDS 40 or the price will be RSD 340 for 1 kg in Alu produkt. There is a 0.1 probability

²⁹ All of this projections are based on the level of 300, 320,340 RSD value of third order for 1 kg for aluminum foil

that the price will increase in the third quarter for RSD 40. This is very open to discussion and less likely according to the experts of MEMRB research agency. There is another scenario where Kristal group continue its aggressive campaign for market share and influence reducing of prices. This is not certain, and the probability is 0.15, because the owners of Kristal group, don't have as much inventory and at the moment as good financial situation. The most plausible scenario is that the price stays the same and Kristal group and Alu produkt continue to have the same market share and have 0.45 possibility chance to happen.

Calculation of expected obligation for Alu produkt:

$$E=893,297.58*0.1+874,716.85*0.3+856,136.11*0.45+837,555.37*0.15= 862,639.37$$

Using this formula to calculate expected value, we will multiply every amount with its probability. Multiplying these four probabilities with expected value we calculate RSD 862,639.37 or EUR 8,626 estimated value that will need to be paid to Alu produkt in 2010.

2nd situation – taking subsidized credit for supply of aluminum foil and 20% discount off

At the beginning of the year there is a meeting where we adjust our terms with our suppliers. At the January meeting there was a deal that if SZR Alcakov can pay Alu produkt in advance because of the liquidity crisis and good professional relationship (7 years of doing business with them) we will get 20% discount on our order.

The subsidized credit is a credit that is subsidized by the government from the fond for development. The government pays part of the interest. Instead of interest rate of 20% it is 7%. This credit can be used for paying to suppliers and for ordering goods and services for production.

We look at the possibility of taking subsidized credit in KBC bank in Belgrade. When we contacted them they said we can get credit of RSD 800,000 with 7% interest rate. Interest rate is calculated when we decrease interest rate of National bank of Serbia with 1.5%. Currently it is 8.5%.³⁰

The decided amount for credit will be 720 000 because , SZR Alcakov will order 3000 kg of aluminum foil from Alu produkt for the price of RSD 300 for a kg. The price without taking the credit is RSD 900 000. When discount of 20% is subtracted, the price of 3000 kg of aluminum foil is RSD 720 000.

The amount of credit that might be taken from the bank is RSD 720 000.

³⁰ www.nbs.rs, date 1st may 2010

The referential interest rate in Serbia is fluctuating and there is a possibility to stay the same after 6 months or to change to 8.5% to 8%. This will influence the calculation of the amount of credit.

Concerning the Bank, repayment of the principal in this case is captured on the monthly basis ($m=12$), one year ($t=1$), i.e. 12 periods ($n=t \times m$). Payments are expected to be in annuities (equal amount of repayment during the life of the credit – fixed payments over specific period of time).

An annuity is comprised of the interest repayment share and principal repayments share and their level varies over the life of the credit however, it always remains at the same level

Formula which is used for calculation of annuity is:

$$A = K * r^{nm} * (r-1) / (r^{nm} - 1)^{31}$$

A- annuity

K- amount of credit

$r = 1 + k/1200$

k=interest rate

m=number of months = 12

n=number of periods = 1 because its is one year

TABLE 32- CREDIT PAYMENT

Credit information	
Monthly annuity(RSD):	62,299.26
Credit amount(RSD):	720,000
Total amount that needs to be paid(RSD):	747,591.09
Total interest(RSD):	27,591.09
Interest:	7.00%
Number of payments:	12 months

³¹ Raseta Jovan, "Finansijska i aktuarska matematika"(2009), University of Singidunum. Belgrade, page 77

TABLE 33- CREDIT PAYMENT

Month	Interest	Principal	Annuity	Days	Discount
1	4,200.00	58,099.26	62,299.26	31.00	61,931.06
2	3,861.09	58,438.17	62,299.26	59.00	61,602.22
3	3,520.20	58,779.06	62,299.26	90.00	61,242.2
4	3,177.32	59,121.94	62,299.26	120.00	60,897.77
5	2,832.44	59,466.81	62,299.25	151.00	60,545.91
6	2,485.55	59,813.70	62,299.25	181.00	60,209.25
7	2,136.64	60,162.62	62,299.26	212.00	59,865.28
8	1,785.69	60,513.57	62,299.26	243.00	59,525.22
9	1,432.70	60,866.56	62,299.26	273.00	59,199.78
10	1,077.64	61,221.62	62,299.26	304.00	58,867.22
11	720.51	61,578.74	62,299.25	334.00	58,548.92
12	361.30	61,937.95	62,299.25	365.00	58,223.6
Total	27,591.08	720,000.00	747,591.08	2,363.00	720,658.5

When the interest rate is 7% and the annuities are paid monthly, the amount of annuity is RSD 62,299.26 or EUR 622. The amount of total interest that would need to be paid is RSD 27,591 or EUR 275.

When we discount on present value amount of every annuity, dependable on period when it needs to be paid we calculate that total expected amount is RSD 720,658.50.

Because there is a possibility that referent interest changes, the bank will modify the interest on the half year basis.

TABLE 34- PAYMENT OF PRINCIPAL

Annuity	Rest of principal
1	661,900.74
2	603,462.57
3	544,683.51
4	485,561.58
5	426,094.76
6	366,281.06
7	306,118.44
8	245,604.87
9	184,738.31
10	123,516.70
11	61,937.95
12	0.00

This table 34 shows us that after 6 months, RSD 366,281.06 is the rest of the payment. On that amount we now calculate the new interest and the annuity for the remaining 6 months. New interest might be 6.5%, because the referent interest rate can be reduced to 8%.

TABLE 35 – CREDIT INFORMATION

Credit information	
Monthly annuity(RSD):	62,209.40
Credit amount(RSD):	366,281.06
Total amount that needs to be paid(RSD):	373,256.40
Total interest(RSD):	6,975.34
Interest:	6.50%
Number of payments:	6 months

TABLE 36- PAYMENT OF CREDIT

	Interest(RSD)	Principal(RSD)	Rest(RSD)
1	1 984.02	60,225.38	306,055.68
2	1 657.80	60,551.60	245,504.08
3	1 329.81	60,879.59	184,624.50
4	1 000.05	61,209.35	123,415.15
5	668.5	61,540.90	61,874.25
6	335.15	61,874.25	0

When we combine this calculation with the first 6 months of paying the credit with 7% interest we get table 37.

TABLE 37- PAYMENT OF CREDIT WITH CHAGE OF INTEREST RATE

Month	Interest	Principal	Annuity	Days	Discount
1	4,200.00	58,099.26	62,299.26	31.00	61,931.06
2	3,861.09	58,438.17	62,299.26	59.00	61,602.22
3	3,520.20	58,779.06	62,299.26	90.00	61,242.2
4	3,177.32	59,121.94	62,299.26	120.00	60,897.77
5	2,832.44	59,466.81	62,299.25	151.00	60,545.91
6	2,485.55	59,813.70	62,299.25	181.00	60,209.25
7	1,984.02	60,225.38	62,209.40	212.00	59,778.94
8	1,657.80	60,551.60	62,209.40	243.00	59,439.36
9	1,329.81	60,879.59	62,209.40	273.00	59,114.4
10	1,000.05	61,209.35	62,209.40	304.00	58,782.31
11	668.50	61,540.90	62,209.40	334.00	58,464.47
12	335.15	61,874.25	62,209.40	365.00	58,139.63
Total	27,051.93	720,000.01	747,051.94		720,147.5

If the interest rate changes after 6 months the total amount of interest that needs to be paid will be RSD 27,051.93 or EUR 270. Total obligation for credit will be RSD 747,051.94 or EUR 7,470 or when we discount this number to present value it is RSD 720,147.5 or EUR 7,201.

Calculation for expected value of credit:

TABLE 38 – EXPECTED VALUE OF CREDIT

Interest rate	Credit amount(RSD)	Probability %	Expected value(RSD)
7%	720,658.5	0.4	288,263.4
7% and change to 6.5%	720,147.5	0.6	432,088.5
Total(RSD)			720,351.9

The trend of referent interest rate³² of National Bank of Serbia is decreasing, from December 2008 to December 2009 went from 17.5% to 9.5% and this level of 9.5% is constant for the first quarter of 2010. The change of the governor in April 2010 caused a change of policy, whereas last governor Radovan Jelasic wanted have a high interest rate, the new one Dejan Soskic wants to have as cheap money as possible. The goal is to have interest rate of national bank of Serbia +- 2 % of inflation, which is projecting to be 6% for 2010. At this moment the reference interest rate is 8.5% and if the inflation shows potential that will be less or around 6%, and that means that the reference rate will be 8%. By the estimation of the expert professor dr Miroljub Hadzic, the layout of probabilities is 0.4% that the reference interest rate will stay the same during whole year and 0.6 % that will change to 8%.

Final Calculation

The profit of reduction of production cost can be calculated when we subtract the expected value of credit from expected value when SZR Alcakov doesn't take credit for buying aluminum foil.

$$\text{RSD } 862,639.36 - \text{RSD } 720,351.9 = \text{RSD } 142,287.5$$

Subtracting those two numbers we calculate RSD 142,287.5 or EUR 1,422

This means that cost might be lower for RSD 142,287.5 or 16.49% which will increase profit for the same amount.

³² Movement of referent interest rate is in appendix

7. Conclusions and recommendations

The analysis for change of the type of packaging and cost reduction by paying in advance by subsidized credit leads us to three different options for choosing the most efficient strategy for increasing profit.

TABLE 39 – COMPARASION OF STRATEGIES

Number	Strategy	Expected increase of profit(RSD)
1	Changing of the packaging	$43 \cdot 10^3$
2	Paying in advance to supplier with subsidized credit	$142 \cdot 10^3$
3(1+2)	Paying in advance with subsidized credit and change of the packaging	$185 \cdot 10^3$

This study was started with the premise that will be enough for SZR Alcakov to increase its profit to the desired RSD 1,000,000 or EUR 10,000 if they change type of packaging. These premises were supported with the business intuition of owners of SZR Alcakov. The main assumptions were that there is 90 % to 10 % ratio towards box wrapping, that sales trends can help predict the sales of SZR Alcakov household aluminum products and that there are many dissatisfied consumers of other brands of household aluminum foil. However, after the analysis of sales trends and consumer preference, and medium brand satisfaction, it came to conclusion that the initial premise was not correct and that this strategy is the least profitable.

Table 39, shows that if the sales stay the same level, there might be approximately RSD 43 thousand higher profit in 2010 than in 2009 or that the profit will increase for approximately 5% from the changing of the packaging

Changing of the packaging shows great potential, where if the sales in pieces increase by 10% the profit will be higher for 13% and if the sales in pieces increase by 15%, the profit will increase by 30%. This situation is very possible because when the exploratory research was finished, it showed that from total respondents who buys household aluminum foil there is preference 62.67% to 37.33% percent towards box packaging. Total sold pieces in 2009 was 1,428,993 pieces of household foil where 62.67 % is around 896 thousand pieces. Also if we only take into account stores where SZR Alcakov sell its products which represent 60% of total sales, where ratio is 65%-35%, than the number is around 557 thousand pieces of foil.

The other strategy which was thought that can increase profit of SZR Alcakov to RSD 1000,000, was taking subsidized credit from the bank for in advance paying to its supplier. Owners of SZR Alcakov never took credit from the bank and they had negative attitude toward this action. It

was expected that at the same level of sales, increase of profit will be less or at the same level as strategy of changing the wrapping of household aluminum foil products. If this was the case SZR Alcakov would apply 1st strategy.

Looking at the table 39 we can see that if a company takes subsidized credit and pays for the material (household aluminum) in advance for discount of 20%, an expected profit will be higher in 2010 for around RSD 142 thousand or EUR 1.4 thousand or for 16% increase. This amount is much higher than strategy 1, at the same level of sales.

The strategy that has potential to have biggest expected profit and it will be recommended to SZR Alcakov is combination of strategy one and strategy two, where company will take subsidized credit from the KBC bank, so they can pay Alu produkt in advance and get 20% discount and combine it with change of wrapping of its household aluminum foil product.

Combination of first and second strategies will result with expected profit higher than 2009 for around EUR 1.8 thousand or 21% increase of profit. This increase of profit will mean that in 2010 SZR Alcakov has real potential to reach target profit of RSD 1,000,000 or EUR 10,000.

Before this study started the owners of SZR Alcakov were unaware of cost per product and total profit, profit per product, profit margin, loss from delayed payments from their buyers. The results of this research brought up new strategies for the company that allows it to increase the profit and potentially earn more than RSD 1,000,000 or EUR 10,000.

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9. Appendix A

Additional tables

Table 40: In 2009 was difference in days when SZR Alcakov paid to its suppliers, and when SZR Alcakov got paid from its buyers.

TABLE 40-TABLE OF ALL SUPLIERS AND DAYS WHEN THEY ITS OBLIGATION

Supplier	RSD			
Alu produkt	5,459,036.10	116	633248187.6	
Kristal group	786,288.00	101	79415088	
SMS trade	565,504.00	99	55984896	
City express	157,503	55	8662666.1	
Gradac	297,440.00	60	17846400	
Jedro komerc	32,953.50	97	3196489.5	
Papir print	590,190.67	75	44264300.52	
EPS(Electricity)	30,000.00	30	900000	
Milan Tamic – Rent	120,000.00	35	4200000	
Salary for workers	660973	30	19829190	
Book keeping	36,000.00	45	1620000	
Total	8,275,512.60		869,167,217.72	
Average PMT				99.493857

From this table we can see that SZR Alcakov pays to its suppliers in 99 days time.

Table of days when SZR Alcakov got paid from its buyers

TABLE 41 – DAYS OF PAYING OF BUYERS

Idea	8,474,452.60	150	1271167890
Jela	290,590.28	70	20341319.57
Karamarkovic	15,340.50	60	920430
Komazec	140,940.00	113.00	15926220
LD trgovina	36,292.50	58.00	2104965
Luki	110,520.00	110.00	12157200
Macak	35,437.50	185.00	6555937.5
Medius	208,642.50	60.00	12518550
Merkator	142,084.25	102.00	14492593.5
Morava	1,580.00	60.00	94800
Podunavlje	193,455.00	81.00	15669855

Poljoplod	142,425.00	119.00	16948575
Prokomerc	113,265.00	80.00	9061200
Trend komerc	13,702.50	70.00	959175
VTH	52,852.50	121.00	6395152.5
Vukovljak	7,290.00	150.00	1093500
Total	9,837,338.4		1,406,407,363.07
Average PMT			140.9385376

TABLE 42- COST PER PRODUCT

	Alcak Lepo	Alcak Lepo	K plus	Alcak Lepo	K plus	K plus	Alcak Lepo	Total foil sold=made	Total alcakov	Total idea generic brand	
Product	Alu foil 5m	Alu foil 8m	Alu foil 10m	Alu foil 15m	Alu foil 20m	Alu foil 30m	Alu foil 30m				
Number of meters	5	8	10	15	20	30	30				
Quantity	19650	33950	109420	3800	32940	24990	4050	228800	61450	167350	
% of total M made	0.03220209	0.089018535	0.358630635	0.018682093	0.215925665	0.245718687	0.039822	3051050			
% of total quantity made	0.085882867	0.148382867	0.478234266	0.016608392	0.143968531	0.109222028	0.017701	228800			
Cost for aluminum foil(material)	204159.127	564372.7113	2273698.898	118443.463	1368957.077	1557843.231	252471.6	6339946.1			m made
Paper roll to put foil on	25545	44135	142246	4940	42822	32487	5265	297440			quantity made made
Box for packaging			372028		111996	84966		568990			quantity made made
Foil for packaging	6779.393897	11712.99862		1311.027828			1397.28	21200.7			quantity made made
Bags for transport	2830.141062	4889.734812	15759.49288	547.3046329	4744.267002	3599.248099	583.3115	32953.5			is quantity made made
Salary for manufact	36154.36823	62465.18073	201323.7135	6991.684441	60606.8646	45979.52478	7451.664	420973			quantity

uring workers												made made
Amortization	858.828 6713	1483.82 8671	4782.34 2657	166.083 9161	1439.68 5315	1092.22 028	177.0 105	10000				quantity made made
Rent	10305.9 4406	17805.9 4406	57388.1 1189	1993.00 6993	17276.2 2378	13106.6 4336	2124. 126	120000				quantity made made
Electricity	2576.48 6014	4451.48 6014	14347.0 2797	498.251 7483	4319.05 5944	3276.66 0839	531.0 315	30000				quantity made made
Total cost of production	289209. 2889	711316. 8842	3081573 .587	134890. 8225	1612161 .174	1742350 .529	27000 1	7841503 .3				
Salary for director	20611.8 8811	35611.8 8811	114776. 2238	3986.01 3986	34552.4 4755	26213.2 8671	4248. 252	240000				quantity made made
Bookkeeping	3091.78 3217	5341.78 3217	17216.4 3357	597.902 0979	5182.86 7133	3931.99 3007	637.2 378	36000				quantity made made
Transportation of finished products to buyers	13526.8 0922	23370.7 4672	75323.3 3156	2615.87 1503	22675.4 7561	17202.7 9707	2787. 968	157503				quantity made made
Total no production cost	37230.4 8055	64324.4 1805	207315. 9889	7199.78 7587	62410.7 903	47348.0 7679	7673. 458	433503				
Total expenses	326439. 7694	775641. 3022	3288889 .576	142090. 6101	1674571 .964	1789698 .606	27767 4.5	8275,51 2.60				
Cost per unit(RSD)	16.6127 1091	22.8465 7739	30.0574 8104	37.3922 6582	50.8370 3595	71.6165 9086	68.56 16					

TABLE 43 – REVENUE OF ALL BUYERS OF SZR ALCAKOV

Buyer		Alcak lepo	Alcak lepo	Alcak lepo	Alcak lepo	K plus	K plus	K plus	Total
		5 m	8m	15m	30m	10m	20m	30m	
IDEA	Price	25.22	34.52	77.30	0.00	32.50	55.20	80.10	
	Discounted price	23.78	32.64	72.85	0.00	30.28	51.55	75.99	
	Amount	11,850.00	17,900.00	2,350.00	0.00	109,420.00	32,940.00	24,990.00	
	Revenue	298,826.85	617,822.50	181,666.25	0.00	3,556,150.00	1,818,288.00	2,001,699.00	8,474,452.60
	Discounted revenue	281,761.23	584,198.68	171,203.92	0.00	3,313,744.84	1,698,082.86	1,870,908.57	
Jela VM	Price	0.00	37.92	0.00	117.45				
	Discounted price	0.00	36.05	0.00	111.55				
	Amount	0.00	3,000.00	0.00	300.00				
	Revenue	0.00	113,752.50	0.00	35,235.00				290,590.28
	Discounted revenue	0.00	108,138.15	0.00	33,464.63				
Karamarkovic	Price	25.81	35.55	0.00	0.00				
	Discounted price	25.52	35.15	0.00	0.00				
	Amount	250.00	250.00	0.00	0.00				
	Revenue	6,453.00	8,887.50	0.00	0.00				15,340.50
	Discounted revenue	6,380.20	8,787.23	0.00	0.00				
Komazec	Price	0.00	39.15	0.00	117.45				
	Discounted price	0.00	36.73	0.00	111.24				
	Amount	0.00	300.00	0.00	1,100.00				
	Revenue	0.00	11,745.00	0.00	129,195.00				140,940.00
	Discounted revenue	0.00	11,018.81	0.00	122,361.62				
LD trgovina	Price	0.00	38.20	0.00	0.00				
	Discounted price	0.00	36.14	0.00	0.00				
	Amount	0.00	950.00	0.00	0.00				
	Revenue	0.00	36,292.50	0.00	0.00				36,292.50
	Discounted revenue	0.00	34,336.96	0.00	0.00				
Luki	Price	19.40	26.80	0.00	80.40				
	Discounted price	17.80	24.58	0.00	73.99				
	Amount	1,000.00	1,000.00	0.00	800.00				
	Revenue	19,400.00	26,800.00	0.00	64,320.00				110,520.00
	Discounted revenue	17,796.33	24,584.63	0.00	59,192.17				
Macak	Price	28.35	39.15	86.85	117.45				
	Discounted price	26.71	37.14	81.84	110.67				
	Amount	100.00	200.00	150.00	100.00				

	Revenue	2,835.00	7,830.00	13,027.50	11,745.00				35,437.50
	Discounted revenue	2,671.39	7,428.17	12,275.66	11,067.17				
Medius	Price	28.35	37.78	86.85	117.45				
	Discounted price	26.87	35.91	81.88	110.21				
	Amount	700.00	1,050.00	500.00	900.00				
	Revenue	19,845.00	39,667.50	43,425.00	105,705.00				208,642.50
	Discounted revenue	18,811.15	37,703.46	40,939.75	99,190.41				
Merkator	Price	24.26	31.49	74.31	0.00				
	Discounted price	23.12	29.95	70.33	0.00				
	Amount	1,800.00	2,300.00	350.00	0.00				
	Revenue	43,659.00	72,418.50	26,006.75	0.00				142,084.25
	Discounted revenue	41,616.61	68,890.33	24,614.00	0.00				
Morava	Price	0.00	31.60	0.00	0.00				
	Discounted price	0.00	31.24	0.00	0.00				
	Amount	0.00	50.00	0.00	0.00				
	Revenue	0.00	1,580.00	0.00	0.00				1,580.00
	Discounted revenue	0.00	1,562.17	0.00	0.00				
Podunavlje	Price	28.35	39.15	0.00	0.00				
	Discounted price	26.84	37.03	0.00	0.00				
	Amount	2,750.00	2,950.00	0.00	0.00				
	Revenue	77,962.50	115,492.50	0.00	0.00				193,455.00
	Discounted revenue	73,817.71	109,238.02	0.00	0.00				
Poljoplod	Price	28.35	39.15	86.85	117.45				
	Discounted price	26.84	37.07	81.77	111.31				
	Amount	400.00	1,150.00	450.00	400.00				
	Revenue	11,340.00	45,022.50	39,082.50	46,980.00				142,425.00
	Discounted revenue	10,737.39	42,630.42	36,798.07	44,524.19				
Prokomerc	Price	28.35	39.15	0.00	117.45				
	Discounted price	27.04	37.13	0.00	111.31				
	Amount	750.00	1,000.00	0.00	450.00				
	Revenue	21,262.50	39,150.00	0.00	52,852.50				113,265.00
	Discounted revenue	20,277.67	37,130.80	0.00	50,090.10				
Trend komerc	Price	0.00	39.15	0.00	0.00				
	Discounted price	0.00	37.41	0.00	0.00				
	Amount	0.00	350.00	0.00	0.00				
	Revenue	0.00	13,702.50	0.00	0.00				13,702.50
	Discounted revenue	0.00	13,095.20	0.00	0.00				
VTH	Price	0.00	39.15	0.00	0.00				

	Discounted price	0.00	37.47	0.00	0.00				
	Amount	0.00	1,350.00	0.00	0.00				
	Revenue	0.00	52,852.50	0.00	0.00				52,852.50
	Discounted revenue	0.00	50,578.68	0.00	0.00				
Vukovljak	Price	28.35	39.15	0.00	0.00				
	Discounted price	26.21	37.43	0.00	0.00				
	Amount	50.00	150.00	0.00	0.00				
	Revenue	1,417.50	5,872.50	0.00	0.00				7,290.00
	Discounted revenue	1,310.39	5,614.59	0.00	0.00				
	Average selling price	25.60	35.61	79.79	110.13	32.50	55.20	80.10	0.00
	Discounted average selling price	24.18	33.72	75.22	103.68	29.28	51.55	75.99	
	Total amount	19,650.00	33,950.00	3,800.00	4,050.00	109,420.00	32,940.00	24,990.00	228,800.00
	Total Revenue	503,001.35	1,208,959.50	303,208.00	446,032.50	3,556,150.00	1,818,288.00	2,001,699.00	9,837,338.35
	Total discounted Revenue	475,180.07	1,144,936.32	285,831.39	419,890.30	3,204,324.84	1,698,082.86	1,898,990.10	9,127,235.89
	Loss from discounting	27,821.28	64,023.18	17,376.61	26,142.20	351,825.16	120,205.14	102,708.90	710,102.46

TABLE 44- TOTAL SALES FROM EACH SUPERMARKET FOR ALUMINUM FOIL

	1480586		1428993	
	2008	%	2009	%
Vero	37672	0.025444	31156	0.022
Merkator	209637	0.141591	214534	0.151
Idea	318473	0.215099	320725	0.222
Local neighborhood stores	314049	0.212111	263295	0.191
Tempo,maxi,pekabeta	600755	0.405755	599283	0.403

TABLE 45-PREFERENCE IN WRAPPING AND BRAND USAGE

	Please chose which type of household aluminum foil would you buy ?					
	Aluminum foil - see-trough foil wrapping		Aluminum foil - box wrapping		Total	
	Row N %	Column N %	Row N %	Column N %	Count	Column N %
What brand of Alupak household aluminum foil you most frequently buy?	36.4%	21.4%	63.6%	22.3%	66	22.0%
Fino	44.4%	32.1%	55.6%	23.9%	81	27.0%
Alcak Lepo	13.3%	1.8%	86.7%	6.9%	15	5.0%
Alufix	43.8%	12.5%	56.3%	9.6%	32	10.7%
Prima pak	50.0%	.9%	50.0%	.5%	2	.7%
K plus	8.3%	1.8%	91.7%	11.7%	24	8.0%
Casabella-Delta group private label	70.0%	18.8%	30.0%	4.8%	30	10.0%
Merkator-Rodic-Private label	.0%	.0%	100.0%	1.6%	3	1.0%
SZR Zoki	42.9%	2.7%	57.1%	2.1%	7	2.3%
I don't have main brand, I always buy different one	22.5%	8.0%	77.5%	16.5%	40	13.3%
I don't know	.0%	.0%	.0%	.0%	0	.0%

TABLE 46-PRICES OF ALL BRENDAS AT THE MARKET

Brand of household aluminum foil	Type of wrapping	Length 5m	Length 8m	Length 10m	Length 15m	Length 20m	Length 25m	Length 30m
		Price (RSD)						
Alupak	Foil			59		109		156
Alu-Mibra	Foil			63		128		168
Fino	Foil			71		133		169
Alufix	Foil			62		121		154
Zoki	Foil			63		112		147
Prima pak	Box			68		130		209
PL Delta group	Foil			56				159
PL Merkator	Foil				100		137	
PL Idea	Box			49		91		141
Frio	Foil			76		147		182
Gold	Foil	43			115			158
Alu-S	Foil			66		128		
Alu-Extra	Foil		61					150
SZR ANA	Foil					120		

TABLE 47- SALES FROM SZR ALCAKOV, EACH MONTH

	Total Alcak Lepo	Total Alcak Lepo	Total Alcak Lepo	Total Alcak Lepo	Private Label	Private Label	Private Label	Private Label Idea	Total Alcak Lepo	Total
	5 m	8m	15m	30m	10m	20m	30m			
January	2450	2600	250	100	0	0	0	0	5400	5400
February	1550	2800	150	150	6150	4020	2010	12180	4650	16830
March	950	3300	150	200	9150	1530	3900	14580	4600	19180
April	1500	4250	600	250	2230	2910	930	6070	6600	12670
May	1100	2150	300	300	8820	1590	1470	11880	3850	15730
June	2300	3400	550	200	12870	1890	1890	16650	6450	23100
July	1250	1950	150	250	6810	3420	1230	11460	3600	15060
August	1500	2850	50	300	12150	4980	4110	21240	4700	25940
September	1600	2180	950	350	13260	870	360	14490	5080	19570
Oktober	1500	2250	350	250	6030	1050	1260	8340	4350	12690
November	1950	3720	50	1250	17130	5310	3810	26250	6970	33220
December	2000	2500	250	450	14820	5370	4020	24210	5200	29410
Total	19650	33950	3800	4050	109420	32940	24990	167350	61450	228800

TABLE 48 – SALES OF ALCAK LEPO , EACH MONTH

	Total Alcak Lepo	Total Alcak Lepo	Total Alcak Lepo	Total Alcak Lepo	
	5 m	8m	15m	30m	Total month
1	2450	2600	250	100	5400
2	1550	2800	150	150	4650
3	950	3300	150	200	4600
4	1500	4250	600	250	6600
5	1100	2150	300	300	3850
6	2300	3400	550	200	6450
7	1250	1950	150	250	3600
8	1500	2850	50	300	4700
9	1600	2180	950	350	5080
10	1500	2250	350	250	4350
11	1950	3720	50	1250	6970
12	2000	2500	250	450	5200
total	19650	33950	3800	4050	61450

FIGURE 9- SALES TREND – ALL PRODUCTS COMBINED

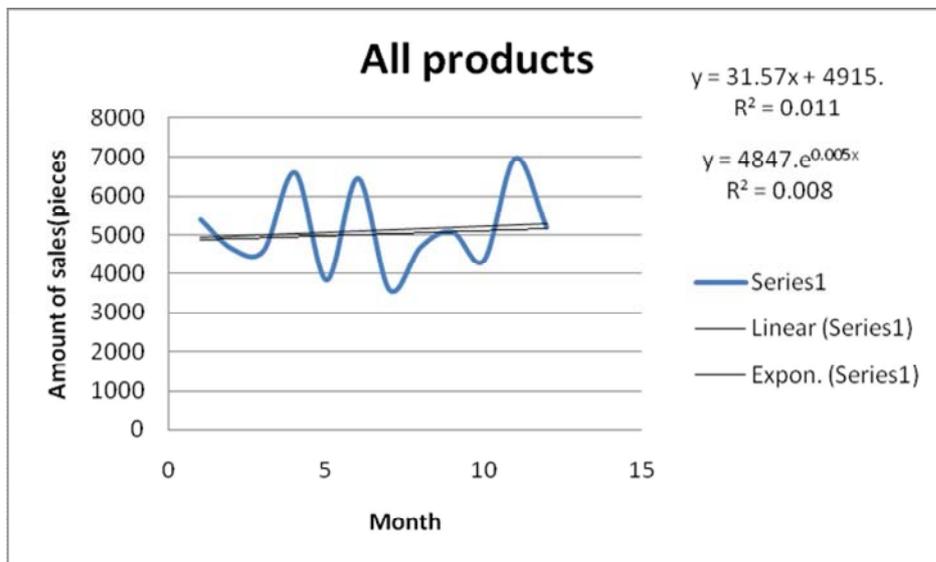


FIGURE 10- SALES TREND -5M

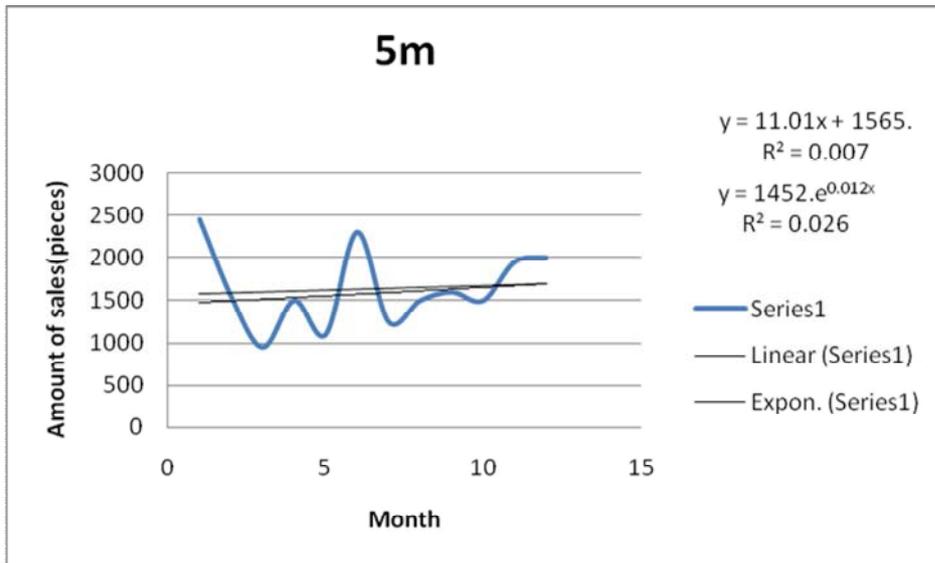


FIGURE 11- SALES TREND - 8M

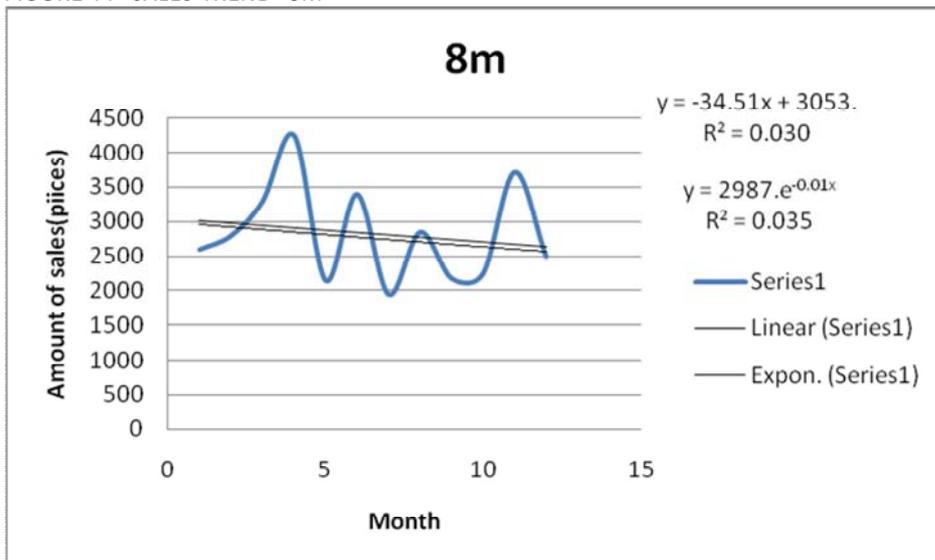


FIGURE 12- SALES TREND – 15M

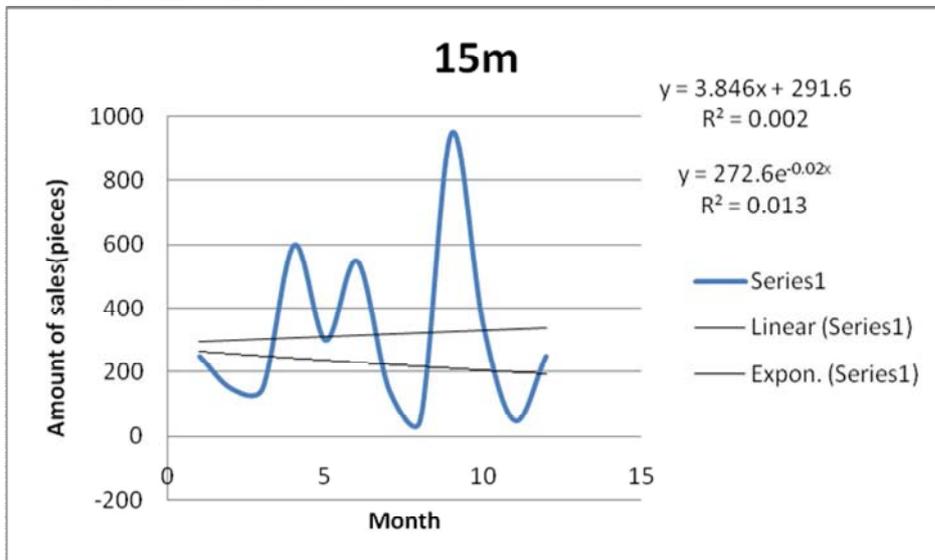


FIGURE 13- SALES TREND- 30M

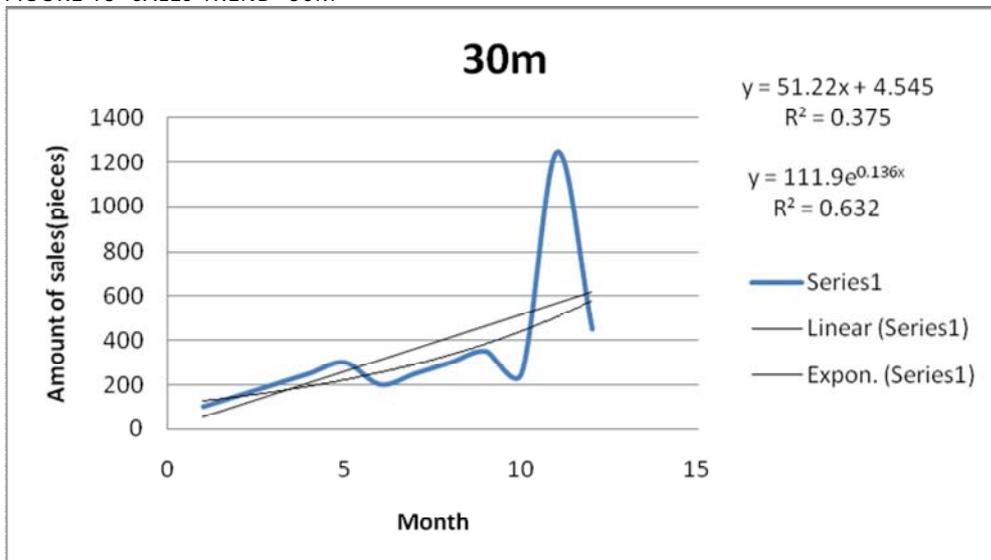


FIGURE 14- REFERENT INTEREST RATE

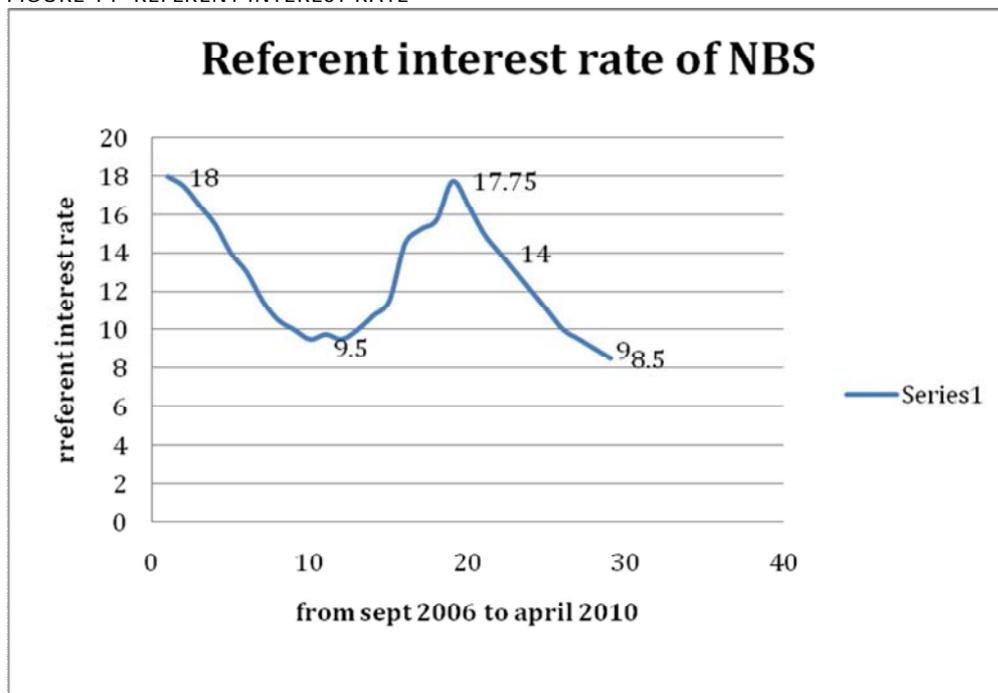


TABLE 49 – SALES IN IDEA BY MONTHS

	K plus	Fino	Alu pak	ALUFIX DOO	ZOKI SZR	ALČAKOV SZR	Prima pak	Total
1	0	5929	7355	1410	723	2850	2271	20238
2	10982	5307	5885	1382	805	2793	1572	27734
3	9726	5399	4876	1309	855	2368	1569	26402
4	10078	5621	4988	1341	589	2394	1613	27124
5	9108	5104	4925	1206	534	2398	336	23611
6	9005	5073	4123	947	566	2833	310	22957
7	9891	5313	4129	871	638	2311	285	23638
8	11545	4939	4776	954	847	2389	269	26615
9	11917	5455	5818	817	648	2354	418	27623
10	12282	5911	4853	912	680	2495	216	26849
11	17910	5449	4135	886	856	2575	414	31925
12	21436	5236	4711	754	814	2735	423	36009
	133880	64736	60574	12789	8555	30495	9696	320725

TABLE 50- SALES BY BRANDS

	Total 2008	%	Total 2009	%
Name	1,480,586		1,428,993	
Alu pak	548,913	37.07%	404,986	28.34%
Fino	305,128	20.61%	228,532	15.99%
Celeja	174,759	11.80%	78,499	5.49%
Alufix	157,221	10.62%	76,874	5.38%
Prima pak	64,556	4.36%	56,829	3.98%
SZR Zoki	49,654	3.35%	41,029	2.87%
SZR Alcakov	59,597	4.03%	52,232	3.66%
Other producers	120,758	8.16%	103,185	7.22%
Private label			391,827	27.42%
Idea			133,880	9.37%
Tempo			149,312	10.45%
Merkator			58,738	4.11%
Other			48,967	3.43%
		100.00%		100%

This table represents percentage of each variable cost in total variable cost, and each fixed cost in total fixed cost. The percentage of variable expenses represent percentage of total expenses and percent of fixed expenses represent percentage of total expenses.

TABLE 51- PERCENTAGE OF VARIABLE AND FIXED COST

	Alcakov brand 5m (RSD)	Alcakov brand 8m	Alcakov brand 15m	Alcakov brand 30m	idea brand K plus 10m	idea brand 20m K plus	idea brand 30m K plus
		RSD	RSD	RSD	RSD	RSD	RSD
Cost for aluminum foil(material)	70.64%	79.38%	87.83%	93.52%	73.81%	84.93%	89.42%
Paper roll to put foil on	8.84%	6.21%	3.66%	1.95%	4.62%	2.66%	1.86%
Box for packaging	0.00%	0.00%	0.00%	0.00%	12.08%	6.95%	4.88%
Foil for packaging	2.35%	1.65%	0.97%	0.52%	0.00%	0.00%	0.00%
Bags for transport	0.98%	0.69%	0.41%	0.22%	0.51%	0.29%	0.21%
Salary for manufacturing workers	12.51%	8.79%	5.18%	2.76%	6.54%	3.76%	2.64%
Transportation of finished products to buyers	4.68%	3.29%	1.94%	1.03%	2.45%	1.41%	0.99%
Total variable expenses	88.53%	91.66%	94.90%	97.22%	93.66%	96.25%	97.34%
Amortization	2.29%	2.29%	2.29%	2.29%	2.29%	2.29%	2.29%
Rent	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%	27.52%
Electricity	6.88%	6.88%	6.88%	6.88%	6.88%	6.88%	6.88%
Salary for director	55.05%	55.05%	55.05%	55.05%	55.05%	55.05%	55.05%
Bookkeeping	8.26%	8.26%	8.26%	8.26%	8.26%	8.26%	8.26%
Total fixed expenses	11.47%	8.34%	5.10%	2.78%	6.34%	3.75%	2.66%
Total expenses	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

This table represents percentage of each cost of total expenses.

TABLE 52 – PERCENTAGE OF TOTAL EXPENSES

	Alcakov brand 5m (RSD)	Alcakov brand 8m	Alcakov brand 15m	Alcakov brand 30m	idea brand K plus 10m	Idea brand 20m K plus	idea brand 30m K plus
		RSD	RSD	RSD	RSD	RSD	RSD
Cost for aluminum foil(material)	62.54%	72.76%	83.36%	90.92%	69.13%	81.75%	87.05%
Paper roll to put foil on	7.83%	5.69%	3.48%	1.90%	4.33%	2.56%	1.82%
Box for packaging	0.00%	0.00%	0.00%	0.00%	11.31%	6.69%	4.75%
Foil for packaging	2.08%	1.51%	0.92%	0.50%	0.00%	0.00%	0.00%
Bags for transport	0.87%	0.63%	0.39%	0.21%	0.48%	0.28%	0.20%
Salary for manufacturing workers	11.08%	8.05%	4.92%	2.68%	6.12%	3.62%	2.57%
Transportation of finished products to buyers	4.14%	3.01%	1.84%	1.00%	2.29%	1.35%	0.96%
Total variable expenses							
Amortization	0.26%	0.19%	0.12%	0.06%	0.15%	0.09%	0.06%
Rent	3.16%	2.30%	1.40%	0.76%	1.74%	1.03%	0.73%
Electricity	0.79%	0.57%	0.35%	0.19%	0.44%	0.26%	0.18%
Salary for director	6.31%	4.59%	2.81%	1.53%	3.49%	2.06%	1.46%
Bookkeeping	0.95%	0.69%	0.42%	0.23%	0.52%	0.31%	0.22%
Total fixed expenses							
Total expenses	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

10. Appendix B

Household aluminum foil survey

This is a survey where we try to find out attitudes/preferences of buyers of household aluminum foil. This survey is completely anonymous and it is used only for purpose of master work for university.

S1. Do you personally use aluminum foil in your household? Circle one of the numbers

1	2	3
Yes ↓ Go to Q1	No ↓ Thank you , You don't need to answer any more questions	I don't know, I am not sure ↓ Thank you , You don't need to answer any more questions

Q1. How often do you buy aluminum foil for your household? Circle one of the numbers

1	2	3	4	5	99
3-4 times a month	Once a month	Once every 2-3 months	Less than once in 3 months	I don't know, I buy when I need it.	I don't know

Q2. How often do you use aluminum foil in your household? Circle one of the numbers

1	2	3	4	99
Every day	Few times a week	Few times a month	Less than 1 time a month	I don't know

Q3. Where do you most frequently buy household aluminum foil? Circle one of the number

1	2	3	4	99
Tempo,Maxi,Pekabeta	Idea supermarket stores	Mercator, Roda	Local, neighbour stores	I don't know

Q4. What brand do you most frequently buy? What is your brand? Circle one of the numbers

1	Alupak	
2	Fino	
3	Alcak Lepo	
4	Alufix	
5	Prima pak	
6	Santis	
7	K plus – Idea PL	
8	Casabella – Tempo PL	
9	Merkator PL	
10	SZR ZOKI	
11	Don't have favorite brand, always different	Go to Q7
12	I don't know	Go to Q7

Q5. Rate the satisfaction of the quality of your main brand that you frequently use? Please use the scale 1-5. 1 means that you are very dissatisfied and 5 that you are very satisfied. Circle one of the numbers

1	2	3	4	5	99
Generally not satisfied(Very dissatisfied)	Not satisfied	I am nor not satisfied nor satisfied	Satisfied	Very satisfied	I don't know

Q6. Rate the satisfaction of the price of your main brand that you most frequently use? Please use the scale 1-5. 1 means that you are very dissatisfied and 5 that you are very satisfied. Circle one of the numbers

1	2	3	4	5	99
Generally not satisfied (Very dissatisfied)	Not satisfied	I am neither satisfied nor not satisfied	Satisfied	Very satisfied	I don't know

Q7. When you had the possibility to choose which one you would pick? Circle one of the numbers

1	Aluminum foil in a box → Go to Q9
2	Aluminum foil without the box → Go to Q10
99	I don't know → Go to Q10

Q8. ? Rate the importance of the cutter of the aluminum foil that comes with the box? 1 means that it doesn't matter and 5 mean that is extremely important. Circle one of the numbers

1	2	3	4	5	99
Generally it is not important, I don't care	It is not important	It is neither important nor not important to me.	It is important	It is very important	I don't know

Q9. Please chose which household aluminum foil would you buy? Circle one of the numbers

1. Aluminum fold - length 10 m , price 52 dinars, no box
2. Aluminum foil - length 10 m , price 60 dinars, in box
3. Aluminum foil - length 10 m , price 70 dinars, in box with the cutter
99. I don't know

D1. Sex Circle one of the numbers

Male	Female
1	2

D2. Age Circle one of the numbers

1	2	3	4	5
18-25	26-35	36-45	46-55	More than 55

D3. What is your monthly income? Income can be salary; pension, monthly allowance, and any other way of income that you have Circle one of the numbers

- 1 No income
- 2 Less than 10 000 dinars
- 3 From 10 001-20 000 dinars
- 4 From 20 001-30 000 dinars
- 5 From 30 001-40 000 dinars
- 6 From 40 001-50 000 dinars
- 7 From 50 001-60 000 dinars
- 8 From 60 001-70 000 dinars
- 9 From 70 001-80 000 dinars
- 10 Over 80 000 dinars
- 99 I don't know

D4. Number of kids in house hold: *Circle one of the numbers*

1	2	3	4
No children	One	2-3	More than 3

D5. Work status *Circle one of the numbers*

1	2	3	4
Pupil/Student	Unemployed	Employed	Retired