

Tobacco Company

Final Report

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I. EXECUTIVE SUMMARY

The marketing plan for new product development is presented in report.

The Armenian Tobacco Company faces now problems connected to new situation in country, destruction of economic links with republics of former Soviet Union, blockade of Armenia, lack of electricity and raw materials.

On the other hand there are new opportunities in the free market and Company should develop its strategy for forthcoming years.

One of such opportunities gives the proposition of the *AmerTobacco* company (Finland) to *ArmTobacco* to produce some of its brands in Armenia. Concerning this proposition, *ArmTobacco* Company wants to establish possibility of producing in Armenia new type of cigarettes. One of the problems is, that cigarettes proposed for production are manufactured from so-called *American Blend* sort Tobacco, and the *ArmTobacco* Company had no experience in production of such type of cigarettes. All the cigarettes in Armenia (and also in former Soviet Union) were produced from *Oriental Blend* Tobacco, which has more strong taste and smell.

Connected to the proposals of *AmerTobacco*, group investigated the situation in tobacco industry and current situation in *ArmTobacco* Company. The capacity and capability of factory were investigated and it was found, that *ArmTobacco* Company has possibility to produce *American Blend* cigarettes.

The marketing objectives including sales objectives, units being produced and intended market share were established.

The marketing strategy for new product was developed. Standard requirements and cost of production was estimated. The selection of the test market was done and testing of new product's prototype were performed. It was found, that there is high demand for *American Blend* cigarettes and smokers in Armenia show interest to new type of Finnish

cigarettes. It was also found, that proportion of possible consumers of new type of cigarettes is 40%. The data obtained were tested by statistical method of null hypothesis testing.

The pricing strategy and distribution strategy are proposed to authorities of *ArmTobacco* Company. It was estimated, that the company can set the margin 50% or less and yet make the price of new cigarettes (about \$0.40) competitive to other *American Blend* cigarettes.

Concerning promotional strategy of *ArmTobacco* Company, the costs of different types of promotional activities were collected and recommendations were given to Company. Taking into account current financial situation in the Company, the group choose to carry the promotional company involving two types of promotional activities - publicity and metro stations advertisements.

In conclusion it was decided that *ArmTobacco* has enough capacity and capability to accept the proposal of the *AmerTobacco* Company. The most appropriate form of cooperation is Joint-Venture. The terms of contract are the subject of further consideration.

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III. SITUATION ANALYSIS

A. Background

1. The Contemporary Tobacco Industry

The tobacco industry is under attack and the main causes for the attacks are most notably the smoking and health issues, and the means employed by the offensives, such as advertising bans, restrictions on public smoking and ever-higher levels of taxation. For instance, in the past half year, several anti-smoking issues in the United States have come to head. The 75 % Domestic Content law; the cigarette tax increase; second-hand smoke; fire-safe cigarettes; the Joe Camel advertising attack; nicotine basting accusations; Federal Drug Administration consideration to regulate cigarettes, and the proposed smoking ban in all public places, even in buildings where more than 10 people enter in a week, have dominated the evening news and front-page headlines of the general press.

The resilience the industry has shown under such enormous pressure is unprecedented, and it is hard to believe that any other industry could survive what the tobacco industry has been put through the past few years.

But the industry's lines of defense are not so clear as the laws condemning cigarettes, mainly because they can pertain to considerations of such intangibles as human nature and the pleasure principle, cultural history, social structures, class conflicts, concepts of personal liberty - to subjects that are points of philosophical and political beliefs. Despite that, a funny thing is happening, according to the reports of *Time Magazine*, the overall percentage of US smokers - on decrease for the past 20 years - is now holding steady at 26%. With the population increase, that means that more people are smoking. Why? Is it because cowboys and camels are suddenly more appealing? Or there is another reason for that. "No", said Glenn A. John, " I think some people -maybe just few - proudly smoke today because of smoking's new tainted glamour which has not through cigarette advertising but from the machinations of the anti-tobacco industry and the legislation foes. Legislators and anti-

smoking forces can go only so far in characterizing cigarette smoking as an evil before it begins to have an appeal just because it is so politically incorrect" [1].

Besides that the tobacco industry can also defend itself with less controversy and more certainty in terms of its own actual existence. The facts to be raised can document how vast numbers of people around the world use the tobacco products, and with such regularity that supplying the demand is an ongoing economic activity of real significance. Fulfilling the world's tobacco demand entails wide-scale employment from farm to store counter, and has impressive spin-off effects in numerous supply/ service industries. All of these together is called economic impact, and the tobacco industry has plenty of it. According to the study [2], 1.6 million people worked in tobacco related activities in 1990 in the European Community - combining full time, part-time and seasonal employment. Every member nation of the EC hosts tobacco products manufacturing. Including leaf purchases, during the year under study the EC manufacturers spent nearly 6 billion ECU on goods and services for their tobacco products, and a further 562 million ECU on equipment. The report places total sales value of tobacco products in the EC in 1990 at 51.4 billion ECU, which given in the prevailing US dollar value comes to 65.5 billion dollars.

The sales returns of the major manufacturing companies are actually the very tip of the iceberg, since tobacco related activities have a highly integrated importance in European economy that too often remains a silent supporter of the cultural, social, and personal factors involved in tobacco usage.

2. History of the company

ArmTobacco company represents the tobacco manufacturing industry in Armenia. The tobacco industry in Armenia was organized in 1924 with capacity of only 25 million units/year. *ArmTobacco* with its today's composition was organized in 1988. The company is

composed of Yerevan tobacco plant and four fermentation factories in different regions of Armenia.

Beginning from 1951 the capacity was increased due to inculcation of progressive technology and machinery. This process of modernization makes the capacity of 6 billion units/year possible. On the way of technical progress the period from 1966- 75 is considered as one of the most important periods in the life of the company. In 1968, the first in the USSR the production of acetate filters with total capacity of 13.2 billions was organized(only 10% of that filters were used for own production, and remaining 90% was used to satisfy the needs of other USSR factories). New, unique productions were created, the main departments are rebuilt and expanded. The production of high quality filter cigarettes was mastered. In addition, the new line of products with state of art packaging (the national ornaments were mostly used) was developed. This stage of modernization and expansion was continued up to 1980. In 1979 the company organized the production of 80 mm filter cigarettes, which became possible after the incorporation of highly productive “Molins” and “Hauni” assembly line. In 1987 the new German and English automated systems were incorporated. This allowed completely automates the manufacturing process. **In 1989 Yerevan *ArmTobacco* factory was recognized as the best factory in the former USSR.**

3. Current situation analysis.

During the first contacts with *ArmTobacco* we were informed, that the company received the proposal from the *AmerTobacco* firm (Finland), concerning manufacturing by *ArmTobacco* and selling in Armenia and C.I.S. markets some brands of *AmerTobacco* company.

From our meeting with *ArmTobacco* Top Managers we have identified, that the company has advanced technology, which allows to manufacture those products. However, managers are interested in estimation the cost of production and the possibility of success of those products in Armenia and C.I.S. markets.

Since Armenia is in blockade, we asked about company's access to C.I.S. market and possible distribution channels. We were informed that despite of existing difficulties, company has well established contacts with wholesalers in Russia (Krasnodar, Rostov), and there are not significant problems related to the distribution.

It was also stated that company now produces about 2 billion units of cigarettes per year and works on about 20 % of it's capacity. This large amount of idle capacity (80%) is due to distortion of cooperation with many other Tobacco companies of former Soviet Union resulted in constraint concerning acquisition of raw materials. Besides, as a result of blockade, like many other Armenian companies, *ArmTobacco* also has lost its markets in Republics of former Soviet Union. Therefore, it was reasonable to produce enough to satisfy partially the demand of consumers in Armenia. Under the Government control, taking into account the purchasing power of potential consumers, cigarettes are allocated by coupons.

Then, we realize that information about the potential partner-*AmerTobacco* is needed.

Studying the special literature we indicate, that the *AmerTobacco* company is the largest Finnish firm, which produces 11 billion units of cigarettes annually. Company has strong position in domestic market (in 1993 its market share was 62.9%) [3]. Products of the company are made from *American Blend* tobacco leafs (all of Armenian and C.I.S. cigarettes are manufactured from so-called *Oriental Blend* with strong taste and smell).

In the last few years several anti-cigarette issues in Finland and Europe have come to a head. The cigarette tax increase, second-hand smoke, fire-safe cigarettes, nicotine basting accumulations and the proposed smoking ban in all public places bring to decline of demand in Finland domestic market. Cigarette sales in Finland fell by over 15% in 1993 year. Number of smokers also declined, causing the states tobacco tax revenues to drop by about FMk 3.2 billion. Researches estimate the demand for tobacco products is 20% less than five years ago[4]. In this situation the huge market of C.I.S. with it's high level consumption is highly desirable for *AmerTobacco* company.

We have considered possible reasons why *AmerTobacco* company offered partnership specially to *ArmTobacco*. The advertising, which was given in *Tobacco International* magazine in 1993, where was mentioned that *ArmTobacco* was one of the best tobacco companies in C.I.S. with advanced German, English and French technologies, can be such a reason .

The first contact between *ArmTobacco* and *AmerTobacco* companies took place on March 1994, during the *Meeting of Tobacco Products Manufacturers* in St.Petersburg. During the conversations executives of *AmerTobacco* proposed to Head of *ArmTobacco* Ms. Sargsian to manufacture some of their brands in *ArmTobacco* company. All preliminary agreements were done during this meeting. Later the *ArmTobacco* received two faxes from the Finland about the prices of cigarettes (June 1994) and about sending samples of proposed products (July 15 1994).

During our contacts with both supervisors and employees of *ArmTobacco* we determine that the staff of the plant has necessary qualification to produce Finnish cigarettes in *ArmTobacco*. However, they pointed out that there are constraints concerning cigarette paper, tobacco, and packaging. In case of production of Finnish cigarettes these components should be provided by the *AmerTobacco*, because raw materials that *ArmTobacco* has, do not provide required quality of products. Concerning the equipment, we determine that in spite of its depreciation it may provide high quality and necessary volume of products. However, since the equipment was bought about 5 years ago, now its efficiency is not comparable with efficiency of up-to-date technology.

B. SWOT analysis

Strengths

- The company is the monopolist producer of cigarettes in the Republic, and one of the few producers of filter rods .

- The company's top managers including two vice-presidents and the chiefs of manufacturing departments are very young, well educated and have good command of subject.
- Idle capacity that can be used under better circumstances. Nowadays, the main processing department of the company produces about one million cigarettes per day, but if the problems concerning raw materials and electricity were solved that department can produce 34 million cigarettes per day (2 shifts of work).
- The company has advanced technology that allows to produce tobacco products, which meet all modern requirements.
- The people oriented style of leadership.
- The freedom in making business decisions concerning price, quality and assortment of products.

Weaknesses

- The lack of electricity.
- The problems concerning raw materials.
- The absence of good specialists in the realm of marketing.
- The lack of new products.

Opportunities

- The independence of Republic of Armenia, that allow to meet and negotiate contracts with representatives of World Tobacco Community.
- The absence of actual foreign markets.

Threats

- The War and blockade.
- The energy crisis.

- The increased competition from the *American Blend* cigarettes.
- The absence of clear policy and laws concerning taxation, pricing and relationships between government and private company.

IV. MARKETING OBJECTIVES

A. Sales objectives

Forecasting sales potential and then set the sales objectives based on that potential is an important planning tool. Too high a forecast can leave a company with overload of inventory; too small a forecast can create a nightmare of back orders.

Two sets of variables may affect a new product forecast: the uncontrollable variables and the controllable elements in the new product's marketing plan. Each set contains both favorable and unfavorable factors that need evaluation for each specific new product forecasting situation. Favorable factors, those that will positively affect the new product's sales, are highly dependent on the type of product as well as the market focus - consumer, industrial, or government. In situation with *ArmTobacco* one of the most favorable factors is that the Government of Armenia permitted *ArmTobacco* to sell the cigarettes out of coupons at the end of 1994. There are also factors that can negatively affect the sales of new product. These should be even more carefully analyzed since they may increase the probability of a new product failure. The following indicators generally have a negative effect on sales: high interest rates; rising prices and threat of inflation, and restrictive monetary policy. Those factors having a significant effect on sales should be carefully analyzed in terms of the present situation and future trends.

Since there is no single method results in accurate forecasting of new product sales in all situation, various methods may be used to fit the specific product/market situation. In *ArmTobacco* **Jury of Executive Opinion method was used.** The jury of executive opinion - one of the oldest and simplest techniques- asks top executives of the firm to forecast future sales. By averaging these views, a broad-base forecast is obtained, which is usually is more accurate than that obtained by using only a single estimate from one executive. In this method estimates of sales are obtained from executives in such functional areas as management, finance, production, and purchasing. The more factual information that these executives have at their disposal, the more accurate their sales estimate will be. Using the historical data and

this method we obtained the companies objectives based on specific decisions on sales growth and the desired percentage of sales growth.

1. In the 1994 the Sales in \$ were planned to be \$5,000,000. For the next three years the company is planning to achieve sales level of \$15,000,000, \$20,000,000, \$25,000,000 respectively

(included sales of new product).

2. In 1994 2 billion units of cigarettes were planed to produce and sell. For the next three years the company is planning to sell 2.5, 3.0, 3.5 billion units respectively (included the production of new cigarettes)

3. Recently the company maintains the market share of 70%. For the next three years the company will try to maintain and increase this level of market share.

The advantage most often cited for the jury of executive opinion method is that it is quick and easy.

V. MARKETING STRATEGY

A. New product development

1. Developing the prototype

a. Manufacturing Process

The manufacturing process of cigarettes begins from the selection of tobaccos, in order to compose the blend of given quality. So far as Finnish cigarettes are of high quality their blend is composed of high quality tobaccos. In this case several blends were picked-up, tested, evaluated and only after that the most optimal one was chosen. This blend was made up from such Indian tobaccos as Virginia flue cured (4/RS, LBY/RL, LBY2/RL) and Burley traditional (LMG/RS). In order to achieve maximum taste resemblance with Finish cigarettes tiny amount of Brazilian and Argentine tobaccos are used, which are well-known for their rich flavor and specific, exotic taste. The experimental lot(batch) of 1000 kg was made up for further technological processing in the Tobacco department.

The first phase of processing is the vacuum humidifying, which contributes to the better penetration of humidity into the structure of the leaf and enhance its elasticity and other technological characteristics. The vacuum humidifying was conducted under pressure of 8-10 atmosphere, which corresponds to American standards.

The next stages of technological process are: the splitting, blending and additional humidifying. After these stages, tobacco was cut (humidity 21%) and thermoprocessed in drying drum, during which the 6% of moisture was released. Then the resting and conditioning take place. All phases that include thermoprocessing and humidifying form the future taste and flavor of tobacco product.

After conditioning fermented cut tobacco passed laboratory test, where in addition to chemical characteristics' control some physical characteristics(as width of tow, content of dust, humidity) are checked.

Then checked raw material was supplied to cigarette making machine. Cigarettes were produced on famous Mark-9 (MOLINS) automatic assembly line. The machines of this

assembly line have pneumatic conveyor systems. Such systems contribute to enhanced quality of finished cigarettes because of even supply of cut tobacco. This equipment allow to produce cigarettes of the highest quality.

The last stage of the manufacturing process is the resting(conditioning) of already manufactured cigarettes. The purpose of conditioning is the improvement of quality(even humidity, burning characteristics), and especially the taste of cigarettes. After that cigarettes are packed in laminated, flip-top boxes.

b. Standard Requirements

In tobacco industry there is no complete formal list of international standards concerning the quality, physical and chemical characteristics of tobacco products. However, depending on type and class of cigarettes there are some generally accepted standards of chemical content and physical characteristics of tobacco, cigarette paper, and filter rods.

Finnish cigarettes belongs to high quality American type, which is characterized by low tar (15 mg) and nicotine(0.8%-2.0%) content. As a rule, they are manufactured mostly from different sorts of Virginia tobacco, and some other sorts in order to improve the taste and flavor, and to get unique *American Blend*. The physical and chemical characteristics of tobaccos that are used in Finnish cigarette blending are presented at exhibit #1 :

As a result, the tobacco blend that is used in *ArmTobacco* for production of Finish cigarettes has the following chemical (which are the most important for smoker) characteristics:

Nicotine	1.15% to 1.55%
Reducing Sugars	14.8% to 23.5%
Chloride	0.3% to 0.6%
Tar	10.0 to 10.5 mg

Such chemical content corresponds to standard requirements of low nicotine, American type cigarettes. (Results of chemical analysis are provided by Central Tobacco Laboratory in Moscow.)

Cigarette paper, plug wrap paper, tipping base paper are indivisible parts of tobacco products. All paper materials will be provided by Finnish companies, particularly by Finnboard company, that is well known for the highest quality bleached sulfite and sulfate paper products, which are manufactured from the most valuable natural cellulose and meet all basic standard requirements.

One of the standards in the paper industry is low chlorine content. This standard is based on environment safety requirements. Finnish paper is manufactured by advanced, environmentally friendly technology, and is totally chlorine free.

Another standard requirement concerns the width (measured in terms of grams/square meter) of cigarette and tipping base paper, respectively 23-24 grams for cigarette paper, and range of 31-38 grams for tipping paper. Tipping paper is a printed paper, and may be perforated to meet specific air dilution levels, which assists the removal of significant portion of smoke, before it passes into the lungs of the smoker. Nowadays, the perforation of tipping paper under the pressure of anti-smoking and fitness campaigns changes from a luxury attribute into a standard requirement. Methods of perforating include laser, enhanced mechanical, mechanical and electrostatic. With laser perforating, hole sizes will be micro (invisible) or (visible), in our case perforation holes are invisible.

Nobody can imagine modern, high quality cigarettes without filter rods. Nowadays there are many different kinds of filter rods, however there are some standard requirements that are general for any type of filter rod. Filter rods are made of cellulose acetate filter tow, which must be clean, white, without flavor. The over wrapper of the filter rod must be smooth and made of white paper. While making the filter rod only the food glue must be used. In our case the glue is made of potato starch. All filter rods must have the same length and diameter.

In the factory, there are contemporary filter rod making machines, which allow *ArmTobacco* to produce the best filter rods in the CIS. Now managers of the company discuss the terms of future contract with Rhone-Poulenc Rhodia AG, which is one of the leaders of the filter tow industry. After the confirmation of the contract *ArmTobacco* will be able to produce a full range of acetate filters made of high quality tow under trade name Rhodia Filter Tow. It would be also possible to produce special filters custom designed, even charcoal and dual component filters, in order to provide improved filter performance characteristics and unique, distinctive appearance for enhanced cigarette brand differentiation. Such filter rods that satisfy the strictest standard requirements can be successfully sold in foreign markets.

c. Packaging and Design

Packaging is one of the stages of product planning, and it is a vital part of product development strategy. A package is a way for effective communication with the customer. It identifies the brand, provides the ingredients and directions, presents an image, and displays the product. A package can be used to differentiate the product from competitors by its design, color shape and materials. It serves as a powerful promotional tool and is the final form of promotion prior to making a purchase decision.

During the packaging phase a company and its specialists conduct researches, design, and produce the package. The necessity for package redesign frequently occurs when a firm's packaging becomes too expensive, receives poor response from channel members and customers, the firm seeks new market segments, or the new package is needed for new product and its positioning. The package is as important as product. It is a key to a product's success. In our case the new package ever so differs from existing packages. It is bright, belongs to the American style of design and is manufactured from high quality paper by *Finnboard* company. Such significant changes in package design occur under the pressure of competing brands(mostly American) and changed consumer preferences.

The packaging decision must weigh each of four factors in the design phase:

- (a) **marketing considerations**, (b) **product protection**, (c) **economic factors**,
(d) **environmental factors**.

Marketing considerations. As mentioned above the package is a powerful mean in communication with consumers, in creation of particular image and in promotion campaign. The package design must consider the implications of the package on the manufacturer, the seller and the consumer. For example, from the point of view of retailer one of the most important characteristics of the package is the shelf stacking characteristics. From that point of view cigarettes are ideal products since their packages have rectangular shape and are easy to stack on the shelves.

Product protection. Tobacco manufacturers are concerned with physical damage of cigarettes, and adverse affect of humidity and strange odors. They work closely with paper companies, chemical manufacturers, and manufacturers of packaging materials to solve the product protection problem, and avoid subsequent financial loss. There are two type of cigarette packages: soft and hard. The package of Finnish cigarettes is a hard, three layered flip top box. The first layer: overwrapper is made of BICOR 21MB621(370AB-5) polypropylene film. Its acrylic coating provides wide sealing range and excellent machinability. It differs from cellophane(that is used for other type of cigarettes) by its excellent strength, moisture and flavor/odor barrier, which is unaffected by age and humidity. BICOR has outstanding surface characteristics, and its elegant appearance gives new dimension to packaging. In addition, the usage of polypropylene reduce the price of package, because despite the expensiveness of polypropylene it is efficient: instead of 52 kg of cellophane only 47 kg is used for production of one million cigarettes.(see exhibit #2. cost)

The second layer is a carton box itself, made from low density SBS board. It protects cigarettes from physical damage, and serve as label.

Laminated aluminum foil compose the third layer. It protects cigarettes from moisture and foreign flavors.

Economic considerations. It is estimated that about 10 % of a product's selling price goes for its packaging, for cigarettes this amount comprise to 11 %. The redesign of package is also very expensive. Consequently the packaging decisions must be made very carefully. In planning their packaging programs firms need to weigh the short-term and long-term benefits and costs.

Environmental considerations. In October TABEXPO 94 Exhibition & Congress will take place. The focus of the third day of the congress is: "Packaging and Environment." The pack must be seen in context, meaning its life-cycle from the cradle to the grave. "Where do the materials come from that go into its making, what is it used for and what happens to it when the consumer has unpacked and used the contents?" [5]. The movement to reduce the packaging waste in Europe is the part of the modern ecological awareness. The man with crumpled cigarette pack in the hand can be perceived as a symbol of modern Europe. For instance, in Germany alone, some 6.5 billion cigarette packs are sold annually, and considerable problems arise in the recycling or disposal of three separate materials. So, with its 79 million population, Germany is the largest Europe consumer and the largest producer of packaging waste.

One of the solutions of this problems is the recycling. Another approach is the consideration of alternative packages: plastic and metal boxes. However it has its pros and cons that must be discussed during the congress. In an era of increasing environmental conscience, people are continually reminded that each individual's contribution is significant.

d. Cost.

The cost of new product is often very difficult to estimate. It can depend on concurrent manufacturing of other products, as well as the economies of joint distribution and promotion. New product idea costs can be estimated by analyzing costs at various levels of production of similar products.

Calculations of the cost of production of new product give the cost of one package of cigarettes (20 units)-\$ 0.26 (100 drams). The details of calculations see in the exhibit #2.

2. Selection of the test market

As it was stated earlier, the all production of *ArmTobacco* Company is manufactured from so-called *Oriental Blend* Tobacco, which has strong taste and smell. It should be noted, that in whole former Soviet Union, all sorts of produced cigarettes was also manufactured from *Oriental Blend* Tobacco. On the other hand, 80% of world cigarettes (beside FSU) are manufactured from *American Blend* Tobacco[6]. *American Blend* cigarettes have moderately mild taste, more pleasant smell, and what is most important, they are not so dangerous for human health.

Now , there is enough quantity of *American Blend* cigarettes in Armenian market, mainly produced in USA and imported to Armenia through Russia. There is no any research done about demand and Market share of those *American Blend* brands in Armenia.

In order to estimate existing demand for *American Blend* cigarettes in Armenia, it was decided to perform personal interviewing of cigarettes sellers in mall districts of Yerevan and in the Ashtarak, small town 25 kilometers far from Yerevan. In order to avoid possible bias (because of wrong information or nonresponse), it was decided to perform also second survey by direct counting of cigarettes sold by number of sellers in Yerevan.

Before performing first survey, from some preliminary estimations, is was chosen three types of cigarettes, most popular among Armenian smokers:

1. *Astra* - cheap cigarettes without filter, with strong taste and smell. Price-25 drams per pack, equivalent to \$0.05

2. *Arin Berd* - filter cigarettes, also with strong taste and smell, with also relatively low price. Price- 50 drams per pack, equivalent to \$0.12

3. *LM* - *American Blend* cigarettes with relatively high quality and moderate price. Price- 200 drams per pack, equivalent to \$0.50

It should be noted, that in our survey we didn't consider expensive *American Blend* cigarettes, such as *Marlboro*, *Winston* or high quality *Oriental Blend* cigarettes *Camel*, because its prices on Armenian Market is high and its share is small enough (less than 1%).

a. Personal interviews with cigarettes sellers

The sample size for this survey was determined by group with taking into account two factors: restricted time and possibility of group members to perform survey and desired level of confidence of data obtained for authorities of *ArmTobacco* Company. After discussion of this question with client, it was decided that error level $e=10\%$ (reliability probability 90%) will be acceptable and minimal sample size $n=24$ was approved. Simple Random Sample with size $n=20$ in Yerevan and $n=10$ in Ashtarak was chosen. The details of sample size determination and sampling method are given in Appendix A. The sellers were asked how many packs of *Astra*, *Arin Berd* and *LM* cigarettes they sell during the average day. The results obtained are given in Table 1 (Appendix A). The first 20 rows in Table are for Yerevan and the last 10 for Ashtarak.

b. Counting of cigarettes brands, sold in mall districts.

In order to check the reliability of the data obtained from cigarettes sellers, it was decided to obtain the same data by some other method and compare with the first one. For this purpose the direct counting of cigarettes sold by five cigarettes sellers in the popular mall district near the subway station Yeritasardakan was performed. The results obtained are given in Table 2 (Appendix A). Because of the small sample size of this survey ($n=5$), results from Table 2 were not analyzed statistically. The closeness of means for proportion for both surveys (26% and 25%) shows only, that the error level for the personal interviews survey is acceptable for *American Blend* cigarettes market share determination.

c. Statistical analysis of results by interval estimation

The main goal of data processing was to estimate what is proportion of the *American Blend* cigarettes of the total cigarettes consumed in Armenia. According to the well known method [7], the confidence interval estimate for the population proportion π with given sample proportion P is:

$$\pi = P \pm Z \sqrt{\frac{P(1-P)}{n}}$$

With desired 90% confidence interval ($Z=1.64$) and value of sample proportion $P=0.26$ obtained from Table 1 (Appendix A), the estimation of proportion of *American Blend* cigarettes smokers among Armenians is:

$$\pi = 0.26 \pm 1.64 \sqrt{\frac{0.26(1-0.26)}{30}}$$

$$\pi = 0.26 \pm 0.13$$

so that

$$0.13 \leq \pi \leq 0.39$$

The investigation of Tobacco market in Armenia shows, that approximately 30% of cigarettes being consumed now in Armenia are manufactured from *American Blend* Tobacco. All brands of those cigarettes are imported from Russia, Turkey or Iran. This proportion shows, that there is opportunity to produce and sell *American Blend* cigarettes in Armenia.

3. Testing

a. Taste and preference tests among potential market segments.

Possible market segments for new brand were discussed with the authorities of *ArmTobacco* Company. For testing the new product it was decided to perform taste and preference test among two groups of potential consumers of new cigarettes: students and workers. Samples of 30 students in Yerevan State University and 20 workers of *ArmTobacco* factory were chosen randomly from the lists. If the person was not-smoker, the additional

person was chosen, so not-smokers didn't participate in test. The questionnaire for taste and preference test and results are given in Appendix B.

The tests were performed in the same way for both groups. They were asked to smoke one cigarette of new brand Form and one cigarette *LM*. After that they filled the questionnaire.

The field control of questionnaires collected shows, that three of them should not be considered in analysis because of wrong ranking of brands (both brand are ranked as "1" in question #4. Analysis of results shows that both groups of potential consumers like the new brand of cigarettes and rank it enough high. The most important question for research was question 5, concerning possible price of new brand and it's purchasing. The answers were tested using hypothesis test.

b. Analysis of results using hypothesis test.

The analysis of answers given to questions during the taste and preferences test shows, that consumers of cigarettes in Armenian are enough "heavy smokers" - 6 packs of cigarettes per week is big number.

Smokers in Armenia are extremely sensitive to the price, and this fact should be taken into account in pricing strategy.

Respondents qualify the new brand enough high 63 point from 100. Ranking of new brand is also high, more than half (36) of respondents rank it higher than *LM*.

One of the most important question to the group was question about possible purchasing of new cigarettes by the price- 200 drams. Answers to this question indicate possibility for new brand to be successful in Armenian cigarette market.

The data collected were tested using hypothesis test of a proportion. The null hypothesis was specified as:

1. $H_0: P \geq .30$

This means, that we assume that more than 30% of Armenian smokers should purchase more than 20 packs of new cigarettes during the month.

2. Level of sample error $\alpha=0.05$ is allowed and $Z=1.64$.

3. Estimated standard error for P specified in the null hypothesis is:

$$\sigma^2 = \frac{P(1-P)}{n-1} = \frac{.3(1-.3)}{50-1} = 0.0043, \quad \sigma = 0.06$$

4. Critical value is: $0.3 - (1.64) \cdot 0.06 = 0.20$

Since we perform so-called *lower-tailed* test, obtained data should be treated in the following manner. The percentage of potential consumers (answer to question #5) $P=42\% \geq 20\%$ so the hypothesis must be accepted.

Taste and preference test among two potential consumers of new brand (students and workers) shows, that respondents like new cigarettes, rank it higher than popular in Armenia now *LM*. Consumers in Armenia are very sensitive to the price of cigarettes, but with considerably moderate price 200 drams per pack, new brand seems to be successful among *American Blend* cigarettes.

B. Pricing strategy

Before establishing comprehensive pricing policy, the firm must formulate pricing objectives, since the policies are the means of achieving the objectives established. There are wide variety of potential pricing objectives for the company, such as

1. growth
2. avoid government investigation and control,
3. maintain price - leadership arrangement
4. desensitize customers to price
5. maximum long-run profits

Within the framework of the product planning and development process, a pricing policy needs to be formulated. The new product's price is a strategically important factor in the sales and profits performance of the new item. Of particular importance in formulating a company's pricing policy and strategy is the long term financial plan. In determining this financial plan, several key factors need to be considered. First, new product must be priced to yield an appropriate return on invested capital. Another factor in formulating new product pricing policy is the effect the new product will have on the company's present worth. Since the objective of any pricing strategy is to positively affect corporate earnings, this factor should be the cornerstone of all new product pricing.

Within this general policy framework, two specific pricing policies can be implemented for the new product: skimming or penetration pricing policy.

It seems to us that the penetration policy is more appropriate to *Arm Tobacco*. Under a market penetration policy a firm sets a relatively low initial price for the new product in order to achieve sales penetration of the market as quickly as possible. This policy stimulates growth of the market for the new product and allows a large market share to be more quickly obtained. A penetration pricing policy is considered to be most advantageous and in some cases is necessary when the market for the new product appears to be very competitive and price sensitive. This is relevant to the market in Armenia.

COST CONSIDERATION

The ultimate objective of any profit-oriented firm is, of course, to make a profit, and provide a source of funds for investing in research and development, plant, and machinery to ensure future growth and continued profitability.

Cost is very important concept in pricing a new product. Cost is the floor below which the price of the new product cannot fall, at least in the long run, in order for the firm to make a profit and survive.

Because of high prices(\$0.50-\$1.00) of A class cigarettes(competing products), the company may set the margin 50% or less and yet make the initial price (about \$0.40) based on cost of new product ($0.26 \times 1.5=0.40$) competitive to other *American Blend* cigarettes.

C. Distribution strategy

Distribution decisions for both new and existing products should be based on the firm's market segments and marketing objectives. The complexity of the channel strategy may be increased by the newness of the product. Even though a good distribution system is essential to success, firms often overlook distribution channel decisions when they develop and launch a new product. It is sometimes erroneously assumed that channel systems are readily available to access target markets. However, with increased competition, new channel systems are often needed to differentiate the new product.

Characteristics of *ArmTobacco* company, such as size, financial strength, previous channel experience, product mix, affect the channel decision. As a large firm with wide product lines and more experience, it provides its own storage and shipping and hence deals more directly with its end-users. The company has warehouses located in its territory from which it distributes cigarettes to three firm's stores located in Avan, Zeitun and Nork districts of Yerevan. These three stores operate not only as retail stores, but also as wholesalers. They operate as representatives of *ArmTobacco* company and provides cigarettes to other small retail stores. Described distribution channel is already established, but it is limited in number of channel members. Besides, the company has no its store in the center of Yerevan which increases transportation costs for retail stores located in the center. Established channels usually require less time but may, in the long run, provide little differentiation from the competition. On the other hand, the control of the manufacturer in this channel is the highest. There is also another channel provided by "Haicoop" organization which has its own network of retail stores in every district of Armenia. This organization delivers the products directly

from *Arm* Tobacco company to stores by its own transportation system. This channel requires financial commitments, such as inventory credit, stocking allowance and transportation.

The ability of the manufacturer to control the channel system is an important consideration in the channel selection process. Typically channel members are most concerned with profit margins and the new product's demand potential. High margins and support with advertising or other forms of promotion (personal selling) can give the manufacturer a strong bargaining position with its channel system.

It seems to us that because of high competition in the market the most appropriate strategy to be developed for the company is intensive distribution when the strategy to distribute to as many outlets as possible used. Using established channels and strong promotion efforts (price discounts, personal selling, commissions) the company may increase the network of stores which will be interested in cooperation with the company.

With reference to possible channels to CIS market we should point out that the company maintains good contacts with wholesalers in Rostov (Russia). Rostov is one of the most industrialized cities in the south of Russia with highly developed communication infrastructure. Therefore, the further cooperation with wholesalers from Rostov is feasible. Cigarettes could be distributed to Rostov by railroad system through Georgia.

D. Promotional strategy

Many new products do not offer enough novelty to make switching by the consumer worthwhile. Consumers may try the new product but will frequently switch back to the old one, since the old product was probably satisfactory and the new product simply did not offer enough uniqueness to warrant a permanent switch. This problem is specially a subject to serious consideration in cigarette industry, because consumers generally used to smoke their favorite brands of cigarettes. Thus new product should be **positioned** through promotional strategy to have novel attributes that are easily perceived by consumers. Appeals must be

based on the product concept rather than the brand name until there is sufficient awareness among the potential users to warrant a more aggressive brand identification campaign. Therefore, specific characteristics and attributes of new product, such as pleasant sensation, high quality, little damage to health, menthol component should be revealed and compared with other competitive cigarettes during the promotion campaign.

It's obvious, the new product, such as our new cigarettes to be marketed, much efforts must be made in promoting it. The complexity of the promotion mix decision of the new cigarettes is a function of many variables such as: the level of newness of the product, the available promotional budget, the existence of possible promotional media, the attitude of the people of the country (Armenia - in our case) to the advertising and promotion as a whole and so on.

One of the most important but difficult decisions is how much to spend on promoting of the new product.

We tried to consider all possible promotional tools in Armenia.

1. New cigarettes publicity

As we know that the one of the most effective means to facilitate the introduction of a new product is to obtain free advertising in newspapers or magazines. We met with the some commercial representatives of the most popular newspapers. Unfortunately we have not the special trade magazines or consumer periodicals with the *new product* sections, so we have to choose the periodicals which we consider more popular and readable in the community, thinking that keeping the name of our firm and it's new product as subjects of high attention of consumers is the prime objective of advertising. It makes little difference how or what information source is used as long as the consumer sees it, reads it, and remembers it in future purchase decisions. These newspapers are: "Армянский коммерсант", "Голос Армении", «Երկիր», «Հայաստանի հանրապետություն», «ԱԶԳ». After clearing up all information needed we advised the *ArmTobacco* Company to invite the journalist from the newspaper

"Армянский коммерсант", «Հայաստանի հանրապետություն» and tell him/her about the cooperation between the *ArmTobacco* Company and *Amer Tobacco* Company, about their new product and the future plans. We think this information will be helpful for new cigarettes promotion and it will be interesting for all readers of the newspaper.

2. Using an advertising agency

Knowing that the advertising agency can provide many important promotional services to the firm introducing a new product we decided to apply to one of them.

In Yerevan several advertising agencies exist, but , unfortunately, not with various functions and specialties. Traditionally, the advertising agency has been perceived as an independent business organization composed of creative and business people who develop, prepare, and place advertising in advertising media for sponsor's goods and services . Today in all developed countries, advertising agencies perform many services related to the development of the promotional mix, such as market research, package designing, sales training, etc. Studying all advertising agencies in Yerevan such as "DST" (advertising at underground stations), "A1"(TV advertising), AGG (TV- radio-advertising) we came to conclusion that all of them concern to traditional but not too experienced in prompting the new products, particularly, cigarettes. In addition, we realized the following disadvantages of Armenian advertising agencies: 1. They have no modern equipment for a making the advertising materials(films for example) which could compete with foreign competitors, 2. The price for their service is unreasonably high.

3. Evaluation of advertising expenses

Name of the adv. TV agency	Price for making an advertisement	Price of 1 min. running of adv. on TV.
A1	8,000\$ and above	60-80\$ (Depends on time)
AGG	6,000\$-9,000\$	the same
The adv. agency of LRABER	4,000\$-5,000\$	the same

We considered that the **advertisement on TV** would be very effective for our product. If we order 0.5 min. advertisement clip and run it 3 times a day its promotional cost would be about 100-120\$, (30 day: 3,000 -3,600\$), plus ~ 6,000\$ for making the clip. So, the 1 month TV advertisement will be cost the *ArmTobacco* Company ~9,000 - 10,000\$.

The **radio advertisement** would be cost twice cheaper, but radio advertisement, in our opinion,, is not appropriate to tobacco products.

The 1 month **metro advertisement** at two underground stations (DST advertising agency) will be cost to the *ArmTobacco* Company $\sim 120\$ * 30 = 360\$$, plus 50\$ for making the billboard, net cost is $\sim 410 - 450\$$ a month.

The **publicity** in two newspapers "Армянский коммерсант", «Հայաստանի հանրապետություն» will cost $\sim 500\$$.

So, we considered that in present situation the TV-advertising desirable but not affordable for our Company (the Company don't agree to pay 9,000 -10 000\$ for TV advertisement), however, the metro advertisement and publicity is possible and not too expensive. That's why we choose to carry the promotional company involving two types of promotional activities - publicity and metro stations advertisements.

VI. PROPOSED COMPANY OFFERING

Analyzing all obtained data we came to the conclusion that *ArmTobacco* company has enough capacity and capability to produce Finnish cigarettes offered by *AmerTobacco* Company, if *AmerTobacco* will provide some components of cigarettes. Therefore, in case of production of cigarettes by the *ArmTobacco* Company, the most appropriate form of cooperation is Joint Venture.

A Joint Venture may result in reduced costs and favorable trade terms from a foreign government if products are produced locally and some degree of foreign ownership is established. A Joint Venture can take the form of contract manufacturing or joint ownership. Under contract manufacturing a firm agrees to have a foreign company make its products locally. The firm markets the product itself and provides management expertise. With joint ownership the firm agrees to manufacture and market products in partnership with *AmerTobacco* in order to reduce cost by obtaining some high quality components from *AmerTobacco* and spread risk.

Cooperation with *AmerTobacco* may give *ArmTobacco* possibility to produce high quality product (A class cigarettes) and to achieve international markets, such as CIS and Middle East. In future the Company will have opportunity to operate successfully because of privatization, which will take place during 1995 and will provide high level of autonomy. Privatization should also increase responsibility of the management in decision making, concerning future plans. Management should make much efforts and take steps to modernize the technology and increase the expertise. All the efforts of management should be focused on the steps, that will allow the Company to operate at the full capacity. The terms of contract are subject of further consideration

VII. APPENDICES

Appendix A.

Sample size, method of sampling and statistical estimation of proportion of *American Blend* cigarettes consumers in Armenian Tobacco market.

Sample size.

In order to determine sample size of *American Blend* cigarettes consumers proportion among population of smokers in Armenia, the following formula for sample size calculation was used:

$$n = \frac{Z^2 [P(1.0-P)]}{(e)^2}$$

Taking error level $e=10\%$, and $Z=1.64$ (reliability probability 90%), we have suggested, that preliminary value of population proportion is 10%. In this case required sample size is

$$n = \frac{(1.64)^2 [0.1(1.0-0.1)]}{(0.1)^2} = 24.$$

Sampling method.

In order to obtain simple random sample, in two mall districts in the Yerevan (near subway stations Yeritasardakan and Zoravar Andranik) there were asked 20 cigarettes sellers, 10 in each. Interviewers started from the right side of the subway entrance and perform interviews in accordance with sequence of numbers, taken from a the table of random numbers. The same procedure was performed in Ashtarak near the Bus Station. The results obtained are given in the Table 1.

Table1				
	LM	Astra	Arin-Berd	Proportion LM/total
1	5	10	2	0.294118
2	4	10	1	0.266667
3	2	10	5	0.117647
4	4	10	2	0.25
5	6	8	4	0.333333
6	60	90	20	0.352941
7	4	7	2	0.307692
8	7	12	3	0.318182
9	2	6	3	0.181818
10	6	10	5	0.285714
11	6	8	5	0.315789
12	20	100	10	0.153846
13	8	9	3	0.4
14	3	7	1	0.272727
15	3	8	4	0.2
16	6	8	1	0.4
17	5	8	4	0.294118
18	5	8	4	0.294118
19	2	9	4	0.133333
20	6	9	2	0.352941
21	3	8	1	0.25
22	9	12	6	0.333333
23	2	7	3	0.166667
24	4	15	3	0.181818
25	3	20	2	0.12
26	7	25	5	0.189189
27	8	15	5	0.285714
28	5	10	1	0.3125
29	4	9	4	0.235294
30	4	8	2	0.285714
			Mean	0.262841
			Deviation	0.079163
			Minimum	0.117647
			Maximum	0.4

Sheet1

Table 2				
	LM	Astra	Arin-Berd	Proportion LM/total
1	6	12	2	0.3
2	8	25	2	0.228571
3	2	9	4	0.133333
4	3	8	1	0.25
5	7	10	3	0.35
			Mean	0.252381
			Deviation	0.081459
			Minimum	0.133333
			Maximum	0.35

Appendix B.

Taste and preferences test questionnaire and data obtained.

1. How many cigarettes do you smoke in a day? _____

2. How important is price to you when you purchase cigarettes?

(1) Extremely Important ___ (2) Very Important (3) Somewhat Important ___

(4) Neither Important Nor Unimportant ___ (5) Somewhat Unimportant ___

(6) Very Unimportant ___ (7) Extremely Unimportant

3. Having tasted Forum, indicate how much you like its taste by assigning 0 to 100 points, where 0 indicates extreme dislike, 50 indicates indifference (neither like nor dislike), and 100 indicates extreme liking. (You can use any value between 0 and 100). ___

4. Please rank the following two brands in order of your preference. Let a 1 represent preferred brand and 2 not preferred.

___ Form

___ LM

5. Please indicate probability, that you would purchase 20 or more packs of Form per month if it were available for 200 drams per pack.

Would purchase Wouldn't purchase

Respondent # _____

Sheet1

ond #	Pack/week	Price imp.	Taste	LM	Forum	Purchase	Table 3
1	6	3	60	1	2	0	
2	9	7	96	2	1	1	
3	4	3	86	2	1	1	
4	7	7	92	2	1	0	
5	2	3	78	2	1	1	
6	6	4	80	2	1	0	
7	1	7	30	2	1	1	
8	8	4	60	2	1	1	
9	5	7	85	1	2	1	
10	8	2	90	2	1	0	
11	7	7	87	2	1	0	
12	9	6	50	2	1	1	
13	1	7	87	2	1	1	
14	1	4	79	2	1	1	
15	1	5	81	2	1	1	
16	3	7	77	2	1	0	
17	5	3	80	2	1	0	
18	9	2	90	2	1	1	
19	5	4	95	2	1	0	
20	6	6	85	2	1	1	
21	2	3	38	2	1	0	
22	5	5	80	2	1	0	
23	5	4	36	1	2	0	
24	1	7	75	2	1	0	
25	14	4	40	1	2	1	
26	6	3	46	2	1	0	
27	8	2	80	2	1	0	
28	2	1	42	2	1	1	
29	9	5	39	2	1	1	
30	10	7	34	1	2	0	
31	20	2	35	2	1	1	
32	12	7	25	2	1	0	
33	4	2	34	1	2	1	
34	9	3	42	2	1	0	
35	9	7	40	2	1	0	
36	1	6	28	2	1	0	
37	3	6	38	2	1	0	
38	4	7	40	2	1	0	
39	4	2	39	2	1	0	
40	8	6	72	1	2	1	
41	5	5	80	2	1	0	
42	9	7	44	1	2	1	
43	7	7	36	1	2	1	
44	6	2	95	2	1	0	
45	7	4	80	2	1	0	
46	6	7	90	1	2	1	
47	6	3	90	1	2	0	
Mean	6.0638298	4.7234043	63.531915		Purchasers	20	
St.Dev.	3.7090035	1.9748652	23.719237		Proportion	0.4255319	

VIII EXHIBITS.

Exhibit #1

Flue Cured Virginia (Traditional Tobacco - 4/ RS)

1. Physical Characteristics

- a) Color : Lemon
- b) Leaf size : Medium to large
- c) Pore volume
(MI / Gm) : 0.13
- d) Filling value
(CC/ Gm) : 2.6 to 2.8

2. Chemical Characteristics

- a) Nicotine % : 1.0 to 2.5
- b) Reducing Sugars % : 8.6 to 20.9
- c) Chloride % : 0.5 to 1.5

This tobacco is of neutral character and blends well with any tobacco.

Flue Cured Virginia (Mysore LBV / RL)

1. Physical Characteristics

- a) Color : Lemon to orange
- b) Leaf size : Large
- c) Pore volume
(MI/Gm) : 0.13
- d) Filling value
(CC/ Gm) : 2.9 to 3.8

2. Chemical Characteristics

- a) Nicotine % : 1.5 to 2.5
- b) Reducing Sugars % : 18.0 to 27.0
- c) Chloride % : 0.1 to 0.2

This tobacco is preferred for its low nicotine content, high filling capacity, and its suitability to blend well with any tobacco.

**Flue Cured Virginia
(SLS; LBY2 / RL)**

1. Physical Characteristics

- a) Color : Lemon orange to orange/mahogany
- b) Leaf size : Large
- c) Pore volume
(MI/ Gm) : 0.13
- d) Filling value
(CC/ Gm) : 2.6 to 3.5

2. Chemical Characteristics

- a) Nicotine % : 1.0 to 2.0
- b) Reducing Sugars % : 10 to 17.5
- c) Chloride % : 0.5 to 0.9

This tobacco is flavorful to semi-flavorful with excellent aging properties. In addition it has low nicotine content and high filling capacity.

**Sun Cured Monsoon Burley Tobacco
(Traditional LMG/ RS)**

1. Physical Characteristics

- a) Color : Rich tan to brown, heavy bodied with broader lamina
- b) Leaf size : Medium to large
- c) Pore volume
(MI /Gm) : 0.18 to 0.28
- d) Filling value
(CC/Gm) : 5.0 to 6.2

2. Chemical Characteristics

- a) Nicotine % : 1.25 to 3.5
- b) Reducing Sugars % : 1.6 to 3.6
- c) Chloride % : 0.15 to 0.45

This tobacco is used as blend along with other sorts of burley tobacco or by itself, is also used for pipe mixtures, chewing plugs and so on.

Exhibit 2.

COST

Cost of production of cigarettes (85 mm) with filter (15 mm) in hard package

#	Name	Unit	Number of units for 1mln. cigarettes	Cost of unit in \$	Cost of 1mln. units of cigarettes in \$
I.	Raw materials				4162.2
1	Tobacco	kg	1262.0	1.80	2092.0
2	Aluminum Foil	kg	80.0	4.50	360.0
3	Acetate filter rod	1000un	200.0	2.50	500.0
4	Cigarette paper	kg	45.0	2.50	112.5
5	Tipping base paper	kg	22.0	3.00	66.0
6	Flip-top box	1000un	51.2	15.08	772.1
7	Polypropylene film	kg	47	4.8	225.6
II	Wages	\$		400.0	400.0
III	Depreciation	\$			3195.0
IV	Utilities	\$		111.0	111.0
V	Vapor and Fuel	\$		260.0	260.0
VI	Cubicles and crimped basket	\$			161.0
VI	Other expenses			396.0	396.0
	Total				12,813.4

The cost of one package of cigarettes (20 units)-\$ 0.256

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