

# Men's Cosmetics

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Tomas Bata University in Zlín  
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## **ZADÁNÍ BAKALÁŘSKÉ PRÁCE**

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Zásady pro vypracování:

Zpracujte literární rešerši na zadané téma. Charakterizujte specifika mužské pokožky a typy kosmetických prostředků, které jsou tradičně mužům určeny. Věnujte se novým trendům v kosmetických přípravcích pro muže. Proveďte a zpracujte dotazníkové šetření týkající se kosmetiky používané muži.

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[2] DRAELOS, Z. D., THAMAN, A., L. Cosmetic Formulation of Skin Care Products, Taylor & Francis Group. New York. 2006.

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[4] BAREL, A., O., PAYE, M., Maibach, H., I. Handbook of Cosmetic Science and Technology, Third Edition. Informa Healthcare USA, Inc. New York. 2009.

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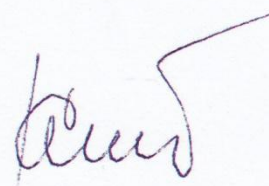
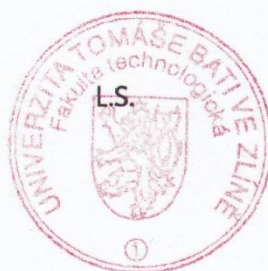
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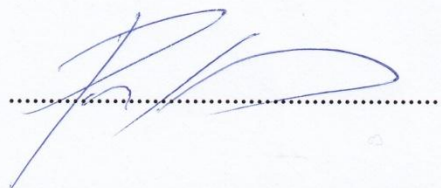
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## **ABSTRAKT**

Tato bakalářská práce se skládá z části teoretické a části praktické.

Teoretická část je zaměřená na historii pánské kosmetiky, anatomii kůže, uvádí fyziologické rozdíly mezi mužskou a ženskou pokožkou a jejich návaznost na výběr kosmetických přípravků. Významná část práce je věnována systematickému rozdělení pánských kosmetických přípravků a jejich složení.

Praktická část se opírá o statisticky zpracovaná data z dotazníkového průzkumu. Porovnává souvislost mezi věkem a vzděláním jednotlivých respondentů a výběr a spotřebu konkrétních kosmetických prostředků.

Klíčová slova: kosmetika, pokožka, mužská toaleta, anatomie kůže

## **ABSTRACT**

This bachelor thesis consists of the theoretical and the practical part.

The theoretical part is aimed at history of men's cosmetic, skin anatomy, physiological differences between male and female skin, and resulting consequences of these differences on selection of cosmetic preparations. Considerable part of the thesis pays attention to systematic diversion of men's cosmetic preparations and their composition.

The practical part relies on statistically proceeded data coming out of the questionnaire survey. It compares the relation of age and education of particular respondents to selection and consumption of the concrete cosmetic preparations.

Keywords: cosmetic, skin, men's toiletries, skin anatomy

## **DECLARATION**

I declare that this bachelor thesis has been completed by myself independently without outside help and only the defined sources thoughts and works of others are made known through the definition of sources.

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## **ACKNOWLEDGEMENTS**

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## INTRODUCTION

Some decades ago it would have been unusual for a man buying a make-up for his female partner, and inconceivable that he should be buying it for himself. In nowadays world, the look of each person has an essential importance in the social sphere. However, there is no doubt of men using cosmetics in ancient times, modern men are paying always more attention to their appearance than they did in past. Men's toiletry consisting only of a splash of water, a bar of soap, and a razor seems to be an anachronism.

There are several factors that changed the attitude towards male cosmetics. New marketing trends persuade people to be aware of the fact that male skin is a different when compared to female one. This makes place for cosmetic products "him only" ranging from shaving, hairdressings, showering, skin care, to decorative cosmetics. Furthermore, the classical men are not what they were ago. The gender roles are less differentiated, so the modern men tend to be more oriented on his overall look than about typical masculine fortitude.

The growth of men's cosmetic is not uniform in all products and markets, but its continuous increase is evident. As a result, almost all of the products available for women have their men's equivalents.

The aim of this thesis was to provide a brief overview over the cosmetic products used by men and to study men's towards using of various types of men's grooming products.

## **I. THEORY**

## 1 A HISTORY OF MEN'S GROOMING AND SKIN CARE

Men's cosmetics have been used from ancient times. The origin of cosmetics is connected with hunting, fighting, religious ceremonies and later with medicine. All these activities were dominated by the male sex part of society so the origins of cosmetics are mainly connected with males.

The word cosmetic derives from the Greek *Kosm tikos* meaning 'having the power, arrange, skilled in decorating', giving *kosmein*, 'to adorn' and *kosmos*, 'order', 'harmony' [1].

### 1.1 Prehistoric times 10 000 BC- 200AD

The greatest expansion of cosmetics in prehistoric times was due to importance of ceremonies in that time society.

#### 1.1.1 Egypt

The first time the association between man and usage of cosmetics was mentioned in the Old Testament (Ezekiel 23:40), and eye shadow was used by Egyptians in funeral ceremonies. The usage of fragrant oils by men to clean, mask their body odor and soften their skin was as early as 10,000 BC. Archeologists found alabaster vases which probably contained oils and perfumes, and several little containers filled with colours for body and face painting in the tomb of the first Egyptian king Menes, which are the first physical evidences of men toiletries. From murals and papyri there is ample evidence, that not only the wealthy Egyptians used perfumes and makeup. The African Climate is extremely hot and dry, so it is necessary to soften the skin. For this purposes, the oils were used. To protect the skin against the glare of the sun the black colouring was used. Egyptians believed into the power of the colour body paintings, for example green painting under the lids was used with the belief that it cured every eye disease.

Both men and women used make-up and wore wigs. The men preferred to be clean-shaven; the kings wore artificial beards on ceremonial occasions. It was a courtesy to offer to a guest a cone of ointment to place on the head when in an Egyptian house. During the visit the heat of the body melted the nard which ran down the tightly curled wig and onto clothes [1]. Men's makeup included the use of Kohl accenting the eye lines and eyebrows. From 7,000 to 4,000 BC, the sesame and olive fatty oils were combined with fragrant plants to create the original Neolithic ointments. The earliest recorded items of Egyptian commerce included spices, gums, and other fragrant plants that were used in men's make-

up, grooming, and skin care products. From ancient writings we know that kohl was used for eye makeup, for dark colouring the skin iron oxide, henna, and litmus and for whitening white lead was used. There are also mentions of hair dyeing by black colour made from nutgalls, iron fillings and copper mixed with olive oil in the ancient literature.

### **1.1.2 Sumerians**

In Herodotus writings which, come from about 500 BC, are mentions about usage of makeup and perfuming by both men and women.

According to Herodotus, both young men and women in Babylonia painted their faces with white lead and vermilion, used perfumed oils and baths for body perfuming and pumice stone to keep their skin smooth. In religion rituals turquoise and powdered manganese oxide was used for black and green eye lining [1].

### **1.1.3 Jews**

Evidence of using cosmetic products by men is also in Jewish history. In the Old Testament it is written: “When Jehu came to Jezrel, Jezebel heard of it and painted her face and tired her head, and looked out at a window” (2 Kings IX. 30) [1]. Jews were anointing their bodies for religious and political ceremonies. They were using holy anointing oil made from sweet spices, onycha, galbanum, myrrh, sweet calmus, cinnamon, cassia in olive oil and pure frankincense beaten to a fine powder.

## **1.2 Europe from 2000 BC**

The usage of cosmetics after 2000 BC in Europe was related not too much to ceremonial customs, but rather to personal hygiene of a man and his own pleasure.

### **1.2.1 Greeks**

Greeks were known as people who loved perfumes and raised the perfumery production to an art level. Perfumes were used mainly by women, but affluent men also used perfumes and perfumed baths.

Greeks also formulated basics of hygiene care for the body and were the first who were practicing the dental hygiene by chewing aromatic gums and cleaning their teeth with twigs.

Aristotle, born in Stagira, Greece in 384 BC, was the source of the biological and physical scientific knowledge at this time. Erasistratus established physiology as a separate study and distinguished between the hygienic and therapeutic care of the body, supporting exercise and bathing as the prime necessity for health [1].

### **1.2.2 Romans**

Romans are known as a nation which loved baths. They were connecting physical health with psychical. Roman emperors were using perfumes. Well known is the example of Nero, who had in his palace special silver pipes that were used to sprinkle the guests with perfumes. Not only the perfumes, but the makeup cosmetic was used. Amongst the many things, they used white lead and chalk to whiten the skin; kohl to make up the eyes, eyebrows and lashes; fucus, a red colour for cheeks and lips; psilotrum, depilatory, barley flour and butter as a cure for pimples; and pumice stone for whitening the teeth [1]. Roman medical book writers linked medicine and cosmetics. Both men and women took special care of their hair and skin.

### **1.2.3 Vikings**

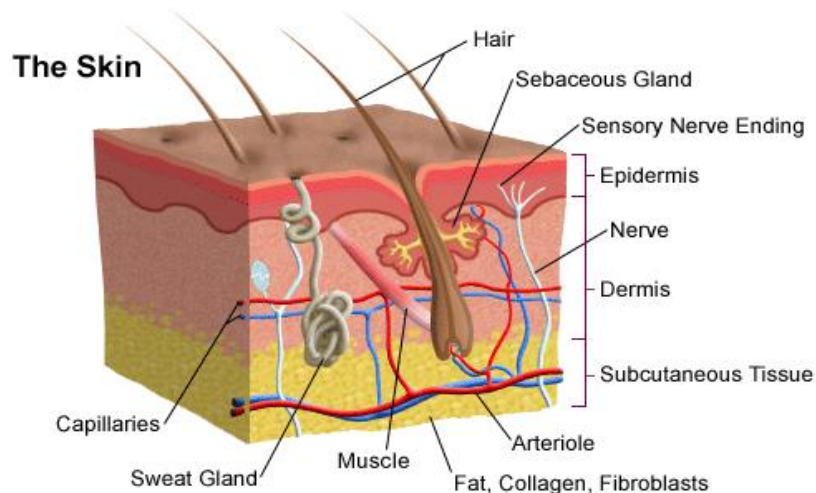
The Arab traveler Ibrahim Al-Tartushi who visited the Viking trading hub of Hedeby in 950AD, provided there is evidence that Vikings worn make-up. He wrote: "there is also an artificial make-up for the eyes, when they use it beauty never fades, on the contrary it increases in men and women as well". What he was observing was probably the use of kohl as men's makeup [1].

## 2 ANATOMY OF SKIN

The skin is our largest organ. It covers  $1.6 - 2 \text{ m}^2$  of the entire outside of the body and is approximately 5 – 9 % of the total body weighs depending on gender, size and ancestry. The total skin without subcutis weights 4 kg on average, and about 15 – 20 kg together with subcutis. At the body orifices areas, it merges into mucous membrane [2].

The skin is responsible for protecting against environmental damage from heat, light, injury, penetration, and infection. In addition, it stores water, fat, and D- vitamin, as well as sensing painful and pleasant stimulation [3].

The skin is made up of the 3 layers - epidermis (skin), dermis (the thicker, deeper layer of the *skin* underlying the epidermis and made up of connective tissue), subcutis (subcutaneous tissue or subcutaneous fat layer).



*Figure 1 Anatomy of skin [4]*

### 2.1 Epidermis

The epidermis, derived from the ectoderm, is the outermost, about 0,1mm to 0, 2 mm thick outer layer of skin. The thickness of the epidermis differs on certain areas of the body. It is the thickest on the soles and palms (around 1.5mm) and the thinnest on the eyelids (around 0, 05 mm).

The epidermis is a squamous, multilayer epithelium. The cells of epithelium proliferate in the base layer, flow along toward the surface and they become more flatted and keratinized. The total maturing of epithelium cells takes around 28 days [5].

### 2.1.1 Sublayers of Epidermis

#### **Stratum basale**

The stratum basale is the bottom layer of epidermis. It contains polygonal cells that are shaped into columns, forming new cytokeratins and replacing the lost ones by mitotic cell division. The epidermis also contains melanocytes – cells that are responsible for producing melanin (skin pigment) [6].

#### **Stratum spinosum**

The stratum spinosum is the thickest layer of epidermis found between stratum basale and stratum granulosum. This layer is also called prickle cell layer due to tight desmosomal connections of adjacent cells [5].

#### **Stratum granulosum**

The stratum granulosum is made up of one or more rows of flattened cells containing keratohyalin. The maturation of keratocytes is characterized by keratin accumulation – keratinization [5].

#### **Stratum lucidum**

The stratum lucidum is the fourth layer of epidermis made up of several rows of clear, flat, dead cells without nuclei. The dead cells contain droplets of a lucid substance – eleidin, which are in progressive keratinizationphase [5].

#### **Stratum corneum**

The stratum corneum is the top layer of the skin, also called the horny layer. As it provides a protective barrier for the skin, it plays a critical role in the health of the skin. The stratum corneum consists of mainly dead or peeling cells, keratinocytes, corneocytes, corneodesmosomes, enzymes, lipids, and natural moisturizing factor. Dead cells, filled in with protein keratin, protect the skin against environmental damage from heat, light, infection, as well as they provide water-proof barrier for the skin [6].



## 2.2 Dermis

The dermis is the layer between the epidermis and subcutaneous tissues. It is a thick layer of fibrous and elastic tissue (made mostly of collagen, elastin, and fibrillin) that gives the skin its flexibility and strength.

The dermis it is made up of various types of fibrous tissues held together by binding substance. It holds the epidermis in place. This layer is responsible for elasticity and mechanical resistance of the skin.

Depending on the part of the body, the dermis differs in its thickness. Whereas the dermis is 2,4mm thick on the palms of the hands and soles, it is only 0,3mm on the eyelids, penis and scrotum [7].

### 2.2.1 Sublayers of Dermis

#### **The papillary layer**

The upper, papillary layer is located under the epidermis. The papillary layer supplies nutrients to the epidermis, therefore, some of them contain capillaries. Another important function is the temperature regulation. Both of these functions are accomplished by a thin, extensive vascular system that operates similarly to other vascular systems in the body. Papillae also provide the touch sensation. They contain Meissner's corpuscles, which are sensory touch receptors. An interesting function for the papillae is the creation of fingerprints and footprints. These are created due to double rows of papillae. Fingerprints and footprints are useful the assisting in gripping objects and in preventing the skin from tearing [8].

#### **The reticular layer**

The lower, reticular layer is thicker and made of thick collagen fibers. The reticular layer is denser than the papillary dermis, and is important in providing the skin it overall structure, strength and elasticity. It also supports other components of the skin, such as hair follicles, sweat glands, and sebaceous glands [6].

### 2.2.2 Composition of Dermis

#### **Nerve Endings**

Nerve endings are pain and touch receptors that are responsible for transmitting sensations of pain, itch, pressure and information regarding temperature to the brain for interpretation [6].

#### **Lymph Vessels**

Lymph vessels bathe the tissues of the skin with lymph. The lymph is a milky substance that contains the infection-fighting cells of the immune system. These cells work to destroy any infection or invading organisms as the lymph circulates to the lymph nodes [6].

#### **Sweat glands**

There are two types of sweat glands. Apocrine glands are found only in the armpits and pubic region. They secrete a sweat that encourages the growth of the bacteria responsible for body odor. Eccrine glands are found over the entire body. They regulate body temperature by bringing water through the pores to the surface of the skin, thereby reducing skin temperature. Eccrine glands can produce up to two liters of sweat an hour [7].

#### **Oil glands**

Oil glands can be found everywhere on the body except for the palms of the hands and the soles of the feet. They are attached to hair follicles. These glands are responsible for secreting of oil that helps keep the skin smooth and supple. The oil also has waterproof characteristics and protects against an overgrowth of bacteria and fungi on the skin [8].

#### **Hair follicles**

Hair follicles are tube-shaped sheaths surrounding the part of the hair that is under the skin and nourishes the hair [7].

#### **Blood vessels**

Blood vessels provide nutrients to the skin and help regulate body temperature by either constricting (vasoconstricting) to maintain internal body temperature, or expanding (vasodilation) to release heat and lower body temperature [6].

### **Collagen and elastin**

Collagen is a protein made by fibroblast that holds the dermis together. Fibroblasts, the skin cells, give the skin its strength and elasticity. In the skin, collagen supports the epidermis, lending it its durability. Elastin, a similar protein, is the substance that allows the skin to spring back into place when stretched and keeps the skin flexible [7].

### **2.3 Subcutis**

The subcutis is the deepest layer of skin. It consists of fat cells (adipocytes) and of a spongy connective tissue.

In that layer, the fat cells are grouped together in large cushion-like clusters. They are held in place by collagen fibers also called connective tissue septa. The fat tissue is supplied by large amount of blood vessels.

The subcutis layer has 3 important functions. Firstly, it isolates from cold and heat. Moreover, the fat cells are an important depositor of nutritive substances when the body needs the nutrients, they are transported from fat cells to the neighboring blood vessels. The blood vessels supply all exigent places of the body with nutrients. Finally, the fat cell clusters form a layer that helps to absorb the shock on the fascia (fibrous tunic of the muscles) and on the muscle tissue under fascia.

The subcutis level is almost everywhere on the body except on the eyelids or under the eyes, shins, penis and nipples. The absence of the hypodermis skin under the eyes contributes to the dark circles under the eyes. That is because the blood vessels are closer to the surface of the skin creating a bluey skin tone effect [6].

### 3 THE DIFFERENCES BETWEEN MEN'S AND WOMEN'S SKIN

Each person's skin has its own characteristics that are determined by a number of factors such as genetics, gender, environment, nutrition, etc. There is not a doubt that the skin of men and women is different. Male skin is visually much different than female skin and has a unique response. Though, not all of these differences can be noticed on all individuals, there are some important differences when comparing a man and a woman's skin [9].

#### 3.1 Differences in Skin Properties

##### **Oil Glands**

Men have smaller oil glands in their skin. As the skin absorbs all of these active ingredients through the glands, the smaller number of glands is the reason why moisturizers and other skin care products are absorbed at lesser rate [9].

##### **Oily Skin**

Male and female skin is very similar up until age of puberty, at which time differences are much obvious. Although the men's skin has smaller oil glands, it is generally oilier when compared to women's skin. This is caused by the male hormone testosterone, which is responsible for the creation of a higher amount of oil secretion. As a result, male skin is generally dirtier than female skin.

There is an apparent relation between the sebum production and acne. The higher level of oil production leads to increased occurrence of acne. Sebum provides a food supply to bacteria *Propionibacterium acnes*, responsible for acne in human skin.

The female hormone estrogen is responsible for lower oil secretion in skin. However, female with some health abnormalities leading to lower estrogen production may experience acne equally to any male. The changes in hormonal levels during puberty trigger an increase in scented type of sweat [9].

The change in sebum production begins to decline around the age of 40. By the time of reaching the age of 50, the oiliness of the men and women skin is almost equal. This is due to lower production of testosterone by male and estrogen by female's body. Usually around age of 60, both male and female skin is considered to be a geriatric skin [10].

### **Skin Aging**

As skin ages, it experiences changes by both genders. Men's skin tends to be thinner over time at about rate of 1 % per year. A women's skin is changing more likely in color and texture as it gets older. This is caused by the fact that the estrogen levels begin to fall following menopause. The amount of collagen in the skin decreases by females more than by males. As a result, women's skin appears older than the same age men's skin [10].

### **Sensitivity**

Although men have generally thicker skin than women, their skin is more sensitive. Taking into account a historical point of view, men have taken less care of their skin when compared to women. Because of daily shaving, the lipid film on the surface of the skin is destroyed. As a consequence, the natural lubrication and protection of the skin is reduced and the dryness of the skin increases. Environmental conditions also play important role [11].

Even the women's skin is less sensitive, it is much thinner. That is why the women skin is more vulnerable to sun damage caused by the exposure of UVA rays. For this reason, women's skin tends to age more visibly [12].

### **Skin cancer**

Both genders are equally susceptible to skin cancer. However, skin cancer differs in number of ways. As men often do not wear shirt during summer, melanoma occurs more on the upper back of the body. As women often wear bikini and skirts during summer, women melanoma is predominant more on the hips and legs. Melanoma on the head, ears, face and neck is more often by males. With the highest probability, it is caused by less hair covering these body areas [13].

### **Nerve fibres**

Man's skin has less nerve fibers (about 50% less) than women's skin. This explains why women have a greater sensitivity to skin pain.

Because of these differences in men's and women's skin, it is apparent that their skin must be treated differently. Apparently, men need skincare just as much as women, maybe even more. Men's skin seems to be more sensitive and more often exposed to damaging environmental conditions. Hence it needs care leading to reduction of dryness and irritation and enhancement of skin rejuvenation [10].

## 4 MEN'S SKIN CARE PRODUCTS

Not so long ago, men who were concerned about their looks more than usual thought to be gay. But as time moved forward, people started to embrace to new trends. Many people find the traditional gender roles to be very restrictive, so nowadays there are trends to overcome prejudices relating to typical man and woman's social role. It is not an exception that women perform roles which would otherwise have been considered mannish and opposite. These trends make the way for cosmetic manufacturers to produce products that satisfy the needs of men concerned over their appearance.

Although the growth of men's cosmetic is not uniform in all markets, cosmetics for men become an everyday reality. Men want to look their best whether they are on their way for a meeting, attending a theatre or going out on a date. It is why manufacturers consider cosmetics for men as promising business [9].

The following part of the bachelor thesis provides a brief review of the main types of the cosmetic products used by men.

### 4.1 Shaving

Shaving is considered to be an important part of a man's life. It is one of the most common methods of hair removal. The rate of growth of hair is about 0,3 – 0,4 mm/day, so shaving is a routine of millions for men all over the world every day [1].

As there are many different skin areas to shave, there is a wide variety of cosmetics to use and several methods to try. However, whatever skin area is shaved, the most common problem of shaving is the irritation of the skin. The removal of beard hair goes along with removal of stratum corneum. The damage of the skin depends on more factors. An effective shave is depended on following:

1. Preparation of the beard, i.e. hydratation of the hair by the use of soap and warm water. Ideally the preparation time is 4 minutes at 49 °C.
2. Application of a shaving aid.
3. Sharpness of blade.
4. Angle of incidence of blade to hair.
5. Pressure exerted on the razor [1].

#### 4.1.1 Pre-shave preparations

To reduce discomfort during shaving, wetting and lubricating of the hair before shaving is an important part of procedure. Shaving creams soften and moisten, so the hair swells well from the skin. Lubrication of the skin helps to lower the friction of the skin, so the razor blade slides better on the skin and minimizes the injury of the skin during shaving. So, the main goal of an effective pre-shave product is to moisturize the skin throughout the entire shaving process and to protect the face from irritation [1].

##### Lather shaving cream

Lather shaving creams contain sodium and potassium soaps. Potassium soaps have higher solubility, so they generate foam more quickly when compared to sodium soaps. The main target of lather shaving cream is to lubricate the beard by supplying small bubbles which break slowly and remain in between hair fiber during whole shaving procedure.

Shaving creams usually contains, around 30 – 50 % of soaps. Using stearic acid for preparation of lather does not lead to sufficient product. That is why the lather shaving creams are based on a mixture of stearic acid with some coconut oil fatty acid. Recommended ratio is of about 25 % of coconut oil to 75 % of stearic acid. To prevent infections arising from cuts during shaving procedure, antimicrobial components such as sodium borate are added. By this, the lather shaving creams provide the further benefit to the men's skin [1].

*Table 1 Example of ingredients in lather shaving cream [1]*

<u>Formula</u>	<u>% w/w</u>
Stearic acid	35,00
Coconut oil	9,00
Potassium hydroxide (50 %)	3,75
Sodium hydroxide (100 %)	1,50
Glycerol	10,00
Water	36,50
Potassium hydroxide strength as above	3,75
Perfume	0,0

### Aerosol shaving foam

Aerosol shaving foams are probably the most popular among all pre shaving preparations. The most important property of aerosol shaving foam is its stable consistency after it is applied to pre-wetted beard during the shaving process.

*Table 2 Example of aerosol shaving foam [1]*

Formula	% w/w
Stearic acid	6-7
Lauryl or Stearyl Alcohol	0.5-1.0
Sodium Lauryl Sulfate	3-5
Glycerol	1-5
Triethanoline	3.2-3.6
Water, Aqua	to100
Perfume	q.s.
Filling:	97% of about above concentrate 3% hydrocarbon propellant

It was believed that certain materials can help to push the hair below the skin by stimulation of the hair follicle muscle, so the hair can be shaved closer to the skin. However, it is hard to achieve by short term application as aerosol shaving foam affords.

### Post-foaming gel

Post-foaming gel is a more recent product in the market when compared to aerosol shaving foam. The gel, a soap-based system, stabilized with a water soluble polymer, blended with lipophilic ingredients contains a hydrocarbon with a suitable boiling point so that when the gel is manipulated between the hands, prior to application to the face, the heat from the skin, aided by mechanical action, vaporizes the hydrocarbon component transforming the gel into a dense creamy foam [1].

The post foaming gel provides a thicker and more stable lather improved wetting of the skin and beard, more of a lubricious feel, and improved gel adhesion to the skin [13].



*Table 3 Example of Post-foaming gel formula [1]*

<u>Formula</u>	<u>% w/w</u>
Stearic acid	6.00
Myristic Acid	2.00
Steareth-2	1.00
Water (Deionized)	to 100
Sorbitol 70%	10.00
Propylene Glycol	3.50
Triethanolamine 99%	4.20
Hydroxypropyl Cellulose(1 % aqueous solution)	5.00
Carbomer 984 (2% aqueous solution)	10.00
Perfume, preservative, colour	q.s.

**Brushless shave creams**

Brushless shave consistency is very similar to vanishing creams. It is an oil-and-water emulsion with higher levels of oil and emulsifier when compared to other shaving preparations. Having the pH of 7.5-8.5, the brushless shaving creams are believed to prevent irritation and redness. Contrary to other shaving products, the brushless shaving creams are difficult to wash down from the razor, leaves the skin fat, and the softening process is less effective due to lower absorption of water from the emulsion by the hair [1].

*Table 4 Example of brushless shave cream formula [1]*

<u>Formula</u>	<u>% w/w</u>
Mineral (Paraffinum Liquidum) Oil	10.00
Stearic Acid	15.00
Cetyl Alcohol	1.00
Carbomer 934	0.60
Water (Demineralized); Aqua	20.00
Triethanolamine	2.00
Triethanolamine Lauryl Sulfate	1.0
Water; Aqua	45.40
Propylene Glycol	5.00
Preservative	q.s.
Perfume, Fragrance	q.s./100.00

### **Dry shaving preparations**

Dry shaving preparations are used while shaving by electric razor. There is not a need to wet the beard hair before shaving. On the other side, dry shaving using electric razor is not so effective, as the hair is cut not close enough to the skin. Generally, some after shave preparation is required to be used after the dry shaving. Astringent water or a product containing alcohol is recommended to be used to disinfect the skin after dry shaving.

*Table 5 Example of dry shaving preparation cosmetic product formula [1]*

<u>Formula</u>	<u>% w/w</u>
Di-isopropyl Adipate	12.00
Benzethonium Chloride	0.10
Ethanol	87.90
Perfume and Colour	q.s.

#### 4.1.2 After shave products

After shave products are intended to cure of after-shave skin trauma caused by removal of the skin during shaving. Besides, the after shave preparations refresh and cool the skin, apply an astringent effect, and protect the skin from bacterial infection that can result from slight injury during shaving procedure [14].

##### After Shave lotion

After shave lotion belongs to the most popular products. The clear lotion contains around 40 – 50 % of ethanol and appropriate amount of water. The ethanol/water ratio can vary in accordance to the type and level of perfume [15].

*Table 6 Example of after shave lotion formula [1]*

<u>Formula</u>	<u>% w/w</u>
Ethanol(denatured), SD Alcohol 40	50-65
Deionized Water, Water, Aqua	to 100
Propylene Glycol	4-6
Fragrance, Perfume	1-2
Colour	q.s.

##### After shave gel

After shave gel are usually made by using a mixture of carboxyvinyl polymer and a base.

*Table 7 Example of after-shave gel formula [1]*

<u>Formula</u>	<u>% w/w</u>
Carbomer 934	1.00
Menthol	0.10
Ethanol (denatured)	48.00
Triethanolamine	1.00
Water	to 100
Perfume	q.s.
Colour	q.s.

### Quick breaking after-shave foams

Quick breaking after-shave foams are dispensed from the aerosol as foam which, on application to the skin, breaks easily. They have declined in popularity since they were introduced. An example of a formulation in which triclosan acts as an antiseptic is given in Table 8 [12]. Triclosan could cause resistance of bacteria, in the same way that antibiotic do. Based on this speculation, in 2003, it was reported that some UK supermarkets were considering phasing out products containing triclosan [16].

*Table 8 Example of after- shave foam formula [1]*

<u>Formula</u>	<u>% w/w</u>
Nonionic emulsifying wax	3.34
Ethanol (denatured)	95.34
Menthol	0.06
Triclosan	0.06
Allantoin	0.10
Di-isopropyl Adipate	1.10
Perfume	q.s.

### After shave balm

After shave balms are solutions to men with sensitive skin. Using products with higher amount of alcohol could cause a counter-productive effect, so the result would be irritation of the skin rather than refreshing. After shave balm are oil-in water emulsions, similar to vanishing or moisturizing creams [1].

*Table 9 Example of after shave balm formula [1]*

<u>Formula</u>	<u>% w/w</u>
Carbomer 934 (3 %)	6.6
Water (Deionized); Aqua	20.00
Methyl Gluceth-20-Distearate	2.00
Cetearyl Alcohol(and) Ceteareth 20	2.50
Isopropyl Palmitate	1.50
Triethanolamine (10 % aqueous)	2.00
Water; Aqua	50.40
SD Ethanol 40	15.00
Preservative	q.s.
Perfume	q.s.

### **After shave powder**

After shave powder does not belong to the most popular after-shave products. However, men with acne can take advantage of talcum powder giving a smooth and matt appearance. After shave powder also contains antibacterial ingredients, which kill or inhibit the growth of bacteria and other microorganisms. It is essentially nontoxic to be applied to the skin or mucous membranes [14]. Further additives in after shave powder are cooling menthol and colour.

## **4.2 Hair-care preparations for men**

Hair care differs in relation to hair type and also according to various processes that can be applied to hair. A healthy skin is one essential requirement for healthy hair. If the hair is not cleaned regularly, the dead skin cells are not removed and the hair scalp becomes to be a accommodation for bacteria, viruses, and chemicals; creating a ground for infection [17].

### **4.2.1 Hair Lotions and Tonics**

Hair lotions and so called tonics are believed to help to grow the hair, however, no clinical evidence can support this claim. Applying hair lotions and tonics is accompanied by soft

massaging of the hair skin. As a consequence, this demonstrably stimulates the blood flow to the hair follicle and can prevent hairlessness.

Except of oily preparations, the hair tonics usually contain a mixture of denatured ethanol and water [15].

*Table 10 Example of hair lotion formula [1]*

<u>Formula</u>	<u>% w/w</u>
Perfume; Fragrance	2.50
Ethanol 95%	60.00
Glycerin	2.00
Water (Deionized); Aqua	35.50

Hair tonics and lotions can also contain active ingredients. Some ingredients are believed to bring blood to the skin surface. These include capsicum extract, ammonia, cantharides, resorcinol, quinine, salicylic acid and rosemary oil.

Sulfur and its derivatives are widely used in hair tonics. They are claimed to promote the hair growth and support the healthy condition of the hair skin.

The vitamins A, E, F, vitamins B group, and vitamins factors as pantothenic acid and pantothenol are frequently used as in hair tonics and lotions as well. These nutrients are believed to help cell synthesis [17].

#### **4.2.2 Antidandruff lotions**

Antidandruff lotions are intended to fight against dandruff, reduces the irritations and skin scalp desquamations caused by seborrhea, dandruff and allergies.

There are two types of antidandruff lotions – oily and non-oily, depending on the type of dandruff. Mostly when using a purely alcohol base, it is recommended to soften the strong degreasing action of alcohol with oily additive.

Using a sulfur and salicylic acid in antidandruff lotions provides a fungicidal effect to the scalp [15].

*Table 11 Example of antidandruff lotion formula [1]*

<u>Formula</u>	<u>% w/w</u>
Saicylic acid	0.05
Resorcinol	0.20
Oleyl alcohol	20.00
Alcohol	79.25
Perfume	0.50

As a prevention to control the dandruffs and seborrhea, shampoos based on quaternary ammonium compounds shows successful results. Most antidandruff shampoos contain zinc pyridine thiol-N-oxide (ZnPTO) as an active agent together with conventional shampoo detergents. ZnPTO is reported to have a strong antibacterial effect in addition to slowing down the rapid turnover of epidermal cells [12].

#### **4.2.3 Hair dressings**

Hairdressings are cosmetic preparations helping to comb the hair into required position without leaving them greasy. They can be combined with water and oil to ease the hair-dressing. Water evaporates soon and oil imparts gloss to the hairstyle. That is why the hair lotion composed of both, oil and water, seems to be an ideal product [18].

##### **Pomade and solid brilliantine**

Pomade and brilliantness are popular mostly among African-American. Their popularity in Europe declined because of their high greasiness. They are usually composed of mineral or vegetable oil in combination with waxes. Waxes help to thicken up these products and give them the semi-solid structure.

##### **Liquid brilliantine**

Liquid brilliantine is composed of a mixture of mineral oil and alkyl myristate. Their biggest advantage is leaving a thin film on hair without making them greasy [1].

##### **Emulsion-type hairdressing**

There are two types of emulsion hairdressing. Water-in oil emulsion makes hair combing easier and gives the gloss to hair immediately after application. Oil-in water emulsion

gives the matte effect to hair at the beginning. After the water evaporates, the gloss effect is visible [18].

### **Hair-styling gels**

Gels are very popular among male users. It is a type of hair glue helping to stiffen the hair into certain hairstyle position. Gels are usually miscible with water and are less greasy than hair creams, but do not give gloss to the hair [1].

### **Aerosol hair gloss**

Aerosol hair gloss provides shine, long lasting hold. It has a quick-drying formula and is used mostly at the final stage of hairdressing providing light finish. Hair glosses often contains UV filters guards against environmental elements [19].

Of course, the above list of cosmetics products is not exhaustive. In addition deodorants, shower gels, creams, sun protection creams become more and more popular cosmetic products among men.



## **II. ANALYSIS**

## 5 GOAL OF THE WORK

Goal of the second part of my bachelor thesis can be summarized in the following points:

- Put together questionnaire about man's cosmetics;
- Evaluate data from questionnaires and prepare graphs;
- Compare the data and the graphs;
- Discuss the obtained results and draw conclusions.

## 6 METHODOLOGY OF THE WORK

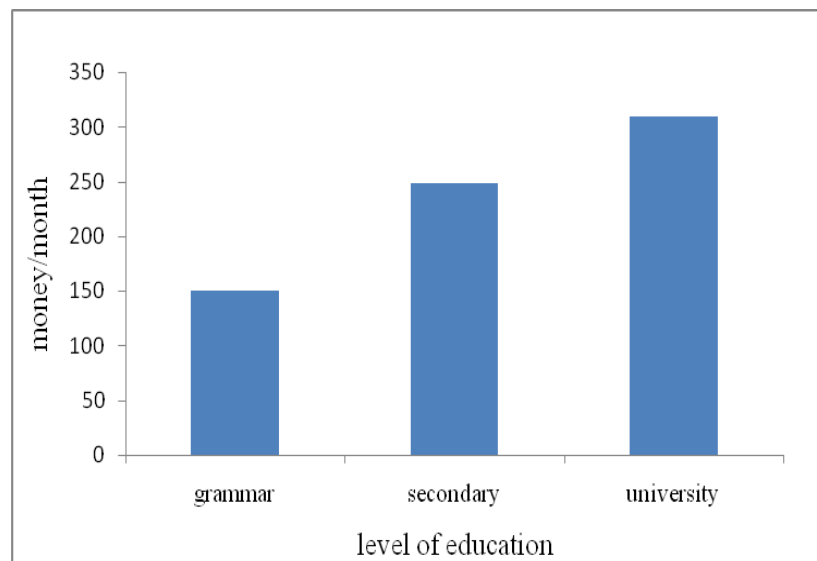
The questionnaire, which is part of the Appendix 1, is divided into several parts serving after completion for evaluation of data and construction of the graphs. The respondents were divided according to their age, level of their education and size of the population in the place of their residence. The respondents were asked what type of cosmetics they are using, how often they use cosmetic products, what amount of money they spend on their cosmetic care, and if they ever used solarium or cosmetic salon, or are willing to visit them in future.

There were 119 questionnaires in total filled out for this research. The respondents were in age group of 16 to 75. According to the age, they were divided into 6 subgroups: under the 18, 18 – 25, 25 – 30, 30 – 40, 40 – 50 and over the 50. There was an uneven ratio of respondents when taking into account their size and place of residence, so the data on cosmetics using dependent on residence place weren't used in this work due to lack of objectivity. Microsoft Office Excel was used for statistical and graphical evaluation of all data in this thesis.

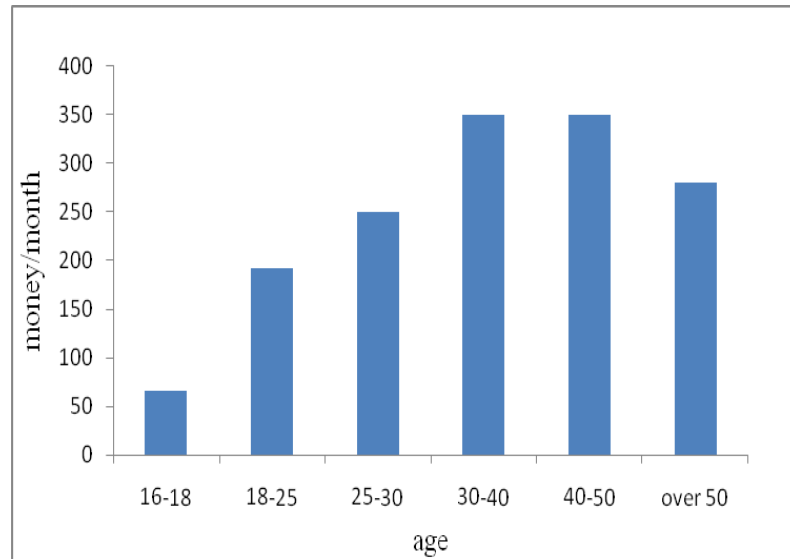
## 7 RESULTS

### 7.1 Amount of money given to the cosmetics products

Respondents were questioned how much money they spend on their cosmetic products per month. The data were collected and average values were assorted taking into account two factors - age and education level of respondents.



*Figure 2 Dependence of money given to the cosmetics on the level of education*



*Figure 3 Dependence of money given to the cosmetics on the age*

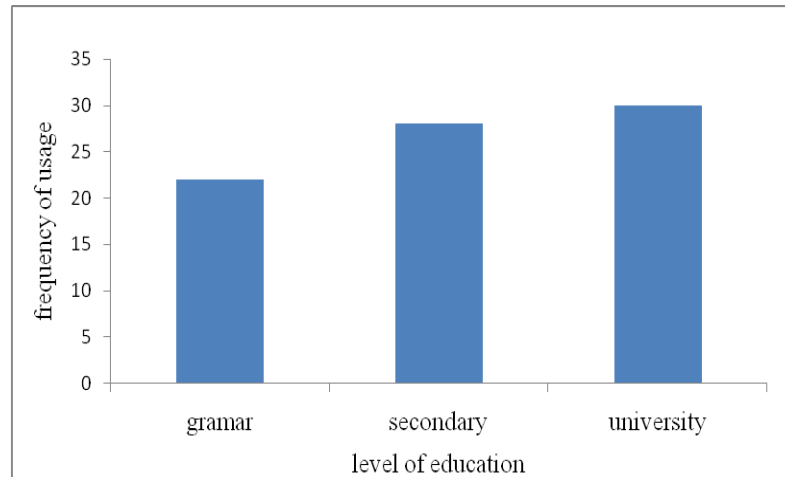
## Discussion

There is evidence, which can be seen in Figure 2 that most money were spent by men with university education. With the highest probability, it is because of their social status and psychological relation between the representative outlook and success in their carrier. In the second graph (Figure 3), there is an increasing evidence of money spent for cosmetics by men until 50 years of age. By men over their 50, the expenses for toiletry have decreasing tendency. This corresponds with the facts that:

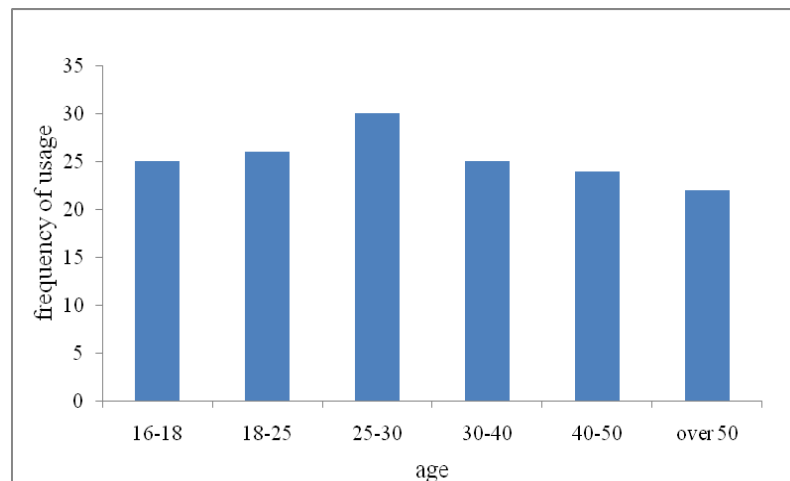
- Young men haven't got money for the cosmetics products;
- With aging, dermatological problems increase;
- Men over 50's prefer only common shaving and showering products as they are not aimed so much on their physical appearance.

## 7.2 Frequency of usage of cosmetic

In the questionnaire, respondents were asked how often they use the cosmetics. The possible answers were: every day, several times a week (=14 times per months), once a week, once a fortnight, or once a month.



*Figure 4 Dependence of frequency of usage cosmetics on the level of education*



*Figure 5 Dependence of frequency of usage cosmetics on the age*

## Discussion

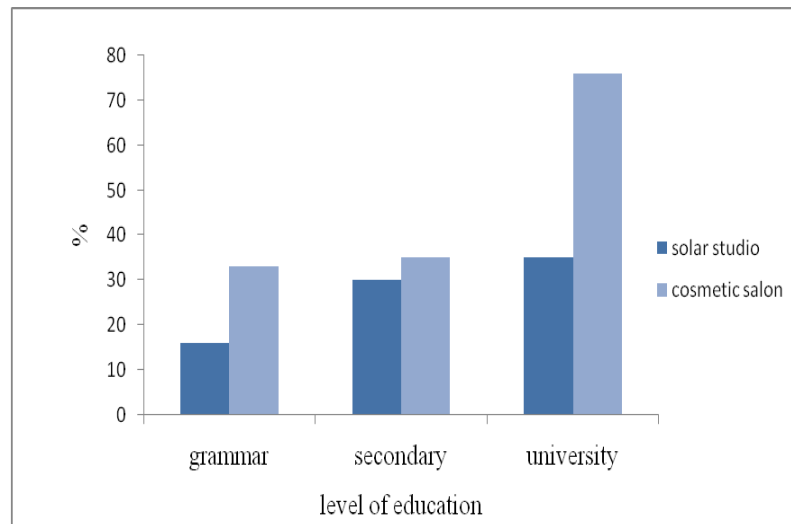
The results shown in the graph of Figure 4 point to the fact that with higher level of education the usage of cosmetic products increases. These results corresponds with the result shown in the graph of Figure 2 claiming that with higher education level the money spend on cosmetic products increase. There is an evidence of highest usage of cosmetics by men in age of 25 – 30 in the graph of Figure 5. It has connection to a natural effort of men to

accomplish an attractive outlook in the times when they are intensively looking for a sexual partner or helpmate.

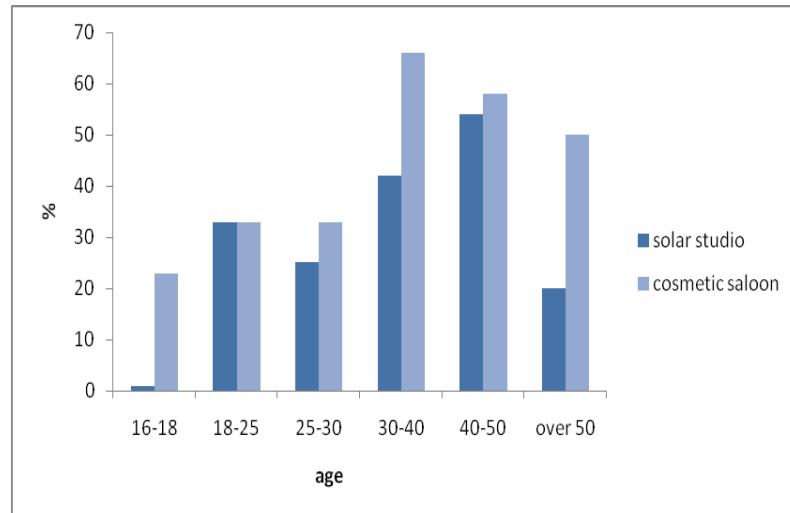
### 7.3 Relation of age and education to willingness to use the solar studios

Respondents were asked if they ever used or would be willing to use solar studio or cosmetic saloon. Due to small number of respondents of this questionnaire, these two questions were processed together. Results are shown in Figure 6 and 7.

Results were counted in percentages as a ratio of positive answers to total number of respondents.



*Figure 6 Dependence of using solar studios and cosmetic saloons on the level of education. Results expressed in percentage of positive answers to total number of respondents.*



*Figure 7 Dependence of using solar/cosmetic studios on age. Results expressed in percentage of positive answers to total number of respondents*

## Discussion

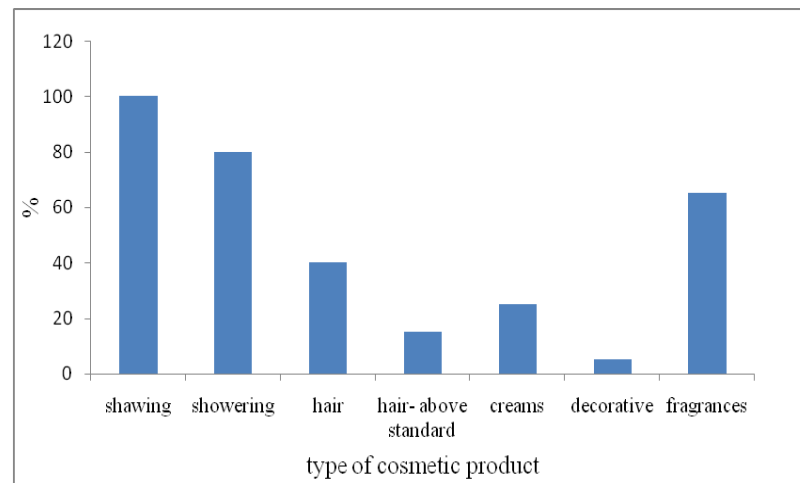
Resulting from graphs of Figure 6 and 7 it is evident that with the higher education level the interest of using cosmetic and solar studios has an increasing tendency. This corresponds with the former conclusions.

Graph of Figure 7 shows the relation of using solar studios and cosmetic salons on age. Using of these salons has increasing tendency after the age of 18 up to 50. It is a consequence of increasing life standard after being involved in work process and gradient carrier. As the life values change after reaching 50, people tend to take care of their health rather than of appearance. Older men over 50 do not tend to use solar studios and cosmetic saloon so often. Moreover, using of these services by men 50+ has a decreasing slope.



#### 7.4 Use of most common products

Figure 4 gives an overview of the most frequently used cosmetic products. As expected, shaving products were most often represented (100 %) opposite to the least represented decorative cosmetic products (less than 5 %).



*Figure 8 Usage of most common cosmetic products*

## CONCLUSION

There has been a noticeable change in the attitude of men's approach towards male cosmetics in last decades. Increasing number of male consumers is choosing to enhance their appearance with cosmetic products. They began to open themselves to new grooming trends; mostly the younger generation is willing to follow them.

Big cosmetic companies seem to take advantage of physiological difference between men's and women's skin. They aim their focus to identify that difference between two genders, so that female's products are not perfectly suitable for men.

Even most of the men's grooming products are still dealing with shaving; there is no denying that specialized men products have continuously greater share in cosmetic market.

Even the practical part of my thesis led to the results that the most frequently used cosmetic is the shaving and showering one, there is a noticeable finding of using, above standard, hair cosmetic as well as decorative one. Generally, educated men tend to use more cosmetic products than less educated ones. Probably the more educated people are, the more they are aware of the fact that representative look gives more chances to them to succeed among competitive society. Regarding the age of male consumers, men in their reproduction period already spend, or are more willing to spend even more money for specialized men cosmetic products.

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## APPENDICES

Appendix P1: Questionnaire

## APPENDIX I: QUESTIONNAIRE

### Dotazník: Kosmetika pro muže

Vhodnou odpověď zaškrtněte

Je možné označit i více možností

1) Věk: .....

2) Nejvyšší ukončené vzdělání:

- ZŠ                       SŠ                       SŠ s maturitou                       VŠ

3) Počet obyvatel v místě trvalého bydliště:

- do 5000                       5000-10 000                       10 000-50 000                       50 000-100 000

- 100 000–500 000     víc jak 500 000

4) Jaký typ kosmetiky **běžně** používáte:

- pěna/gel na holení
- balzám/voda po holení
- deodorant/antiperspirant
- toaletní voda
- gel na vlasy
- pánský sprchový gel
- pánský šampón na vlasy
- přípravky proti vypadávání vlasů (alopecii)
- kondicionér na vlasy
- pleťový (hydratační, výživný) krém



- balzám na rty
- krém na ruce
- pleťová maska
- přípravky proti vráskám
- dekorativní kosmetika (líčení)

5) Jaký typ kosmetiky, který běžně nepoužíváte, ale uvažujete o jeho použití:

- pěna/gel na holení
- balzám/voda po holení
- deodorant/antiperspirant
- toaletní voda
- gel na vlasy
- pánský sprchový gel
- pánský šampón na vlasy
- přípravky proti alopecii
- kondicionér na vlasy
- hydratační krém
- balzám na rty
- pleťová maska
- přípravky proti vráskám
- líčení

6) Jak často pánskou kosmetiku používáte:

- každý den
- několikrát do týdne
- jednou za 14 dnů

jednou za měsíc

7) Kolik peněz jste ochoten do pánské kosmetiky za měsíc investovat:

do 100,-

do 200,-

do 500,-

více jak 500,-

8) Pánskou kosmetiku si pořizujete:

sám

pořizuje vám ji přítelkyně/manželka

dostáváte darem od rodinných příslušníků

10) Důvod proč používáte kosmetiku:

běžné hygienické a sociální návyky

pro dobrý a sebevědomý pocit

z důvodu zvýšení atraktivity vůči svému okolí

11) Navštívil jste někdy solárium?:

ano

ne

12) Pokud ne uvažujete o tom?:

ano

ne

13) Byl byste ochoten jít na kosmetické ošetření do kosmetického zařízení?:

ano

ne