YEREL EL-YAPIMI ZEYTİNYAĞ SABUNU ÜRETİMİ VE TASARIM DÜŞÜNCESİ

LOCAL HAND-MADE OLIVE OIL SOAP PRODUCTION AND DESIGN THINKING

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ABSTRACT

Mass-produced personal care products mostly have been threatening both health and the environment. The commercial system of the cosmetic sector has not been humanistic and ecologically ethical enough based on the mindset of 50's (LEONARD, 2010). Correspondingly, small-scaled, local production and consumption of cosmetics have been wide-spreading with the help of ecological awareness. For example; olive-oil-soap, as one of the personal care products is retrieving its reputation; especially hand-made ones are demanded consciously by consumers. This article aims to discuss on an eco-centric and design-oriented local olive-oil-soap production and consumption with a help of designers' responsible role and to present a thesis / project completed by E. Köse for Seferihisar. This designers' role is generating from "design thinking", "collaborative design" and "social innovation".

In The Aegean Region of Turkey, olive-oil-soap making were common among olive growers' as a domestic production before 50's (LEONARD, 2010). However it is rare today, it is found that local women have still been making olive-oil-soap and selling them at local bazaars in Seferihisar during a field research on "local women's production" in this "Slow City". According to this research, the thesis offers "a design-oriented local business model" built by collaboration among designers and –all local- people, government and NGOs to support females' olive-oil-soap production and ecological soap consumption in Seferihisar (KÖSE, 2011).

ÖZET

Seri üretilen kişisel bakım ürünleri, çoğunlukla insan sağlığını ve çevreyi tehdit ediyor. 1950'lerin anlayışıyla süregelen kozmetik sektöründeki ticari döngü, yeteri kadar insancıl ve çevreyle ilgili olarak etik değil (LEONARD, 2010). Buna karşılık, çevreci farkındalığın yardımıyla, kozmetiklerin küçük ölçekli, yerel üretim ve tüketimi yaygınlaşıyor. Örneğin; kişisel bakım ürünlerinden biri olarak zeytin yağ sabunu, itibarını yeniden elde ediyor, özellikle el-yapımı olanları, bilinçli olarak tüketiciler tarafından talep ediliyor. Bu çalışma, tasarımcıların sorumluluk sahibi bir rolü sayesinde, çevre-merkezli ve tasarıma-dayalı bir yerel zeytin yağ sabunu üretimi ve tüketimi biçimini tartışmayı ve Seferihisar için E. Köse tarafından tamamlanmış bir tez / projeyi sunmayı amaçlar. Tasarımcının bu rolü, "tasarım düşüncesi", "işbirlikçi tasarım" ve "sosyal yenilikçilik" kavramlarından kaynağını alır.

Türkiye'de Ege bölgesinde, 1950'lerden önce, zeytinyağı sabunu yapımı zeytincilikle uğraşanların ev-tipi üretimiydi. Bu gün çok nadiren üretilmesine rağmen, Seferihisar'da, "kadın üretimi" üzerine yapılan bir alan araştırmasında, bu "Sakin Şehir "de kadınların, evde sabun üretip, bunları yerel pazarlarda sattıkları tespit edildi. Buna dayanarak hazırlanan tez, Seferihisar'da kadınların sabun üretimini ve doğa-dostu sabun tüketimini desteklemek amacıyla, tasarımcı ile yerel halk, yönetim ve bir sivil toplum kuruluşunun işbirliğiyle oluşturulacak "tasarım-merkezli yerel bir iş modelini" sunar (KÖSE, 2011).

1. INTRODUCTION: AN OLIVE-OIL-SOAP USE IN TURKEY

It was in late 70's in Istanbul. A girl remembers the smell of olive-oil-soap, shape, color and a series of memories about the soap used in her family house. Home-made olive-oil-soaps, made in Aydın – a city of Turkey in Aegean Region- were delivered by her family members from this city. She remembers herself that having washed by her mother with this soap. It was being smelled deep olive oil; in green or beige colors; was in a big chunk of cubic shape, hardly covered by mom's hand. As it is a big for a women hand, the mom was usually drop it to the girl's head, so she did not like to have bath with this bar of soap. She also did not like its appearance, as usually piece of newspaper was stacked onto its surface, before using it; the mom was peeling newspaper pieces off its surface. Later, in 80's in Turkey, shampoos with smell of green-apple and pink colored ellipse-shaped – branded "lux", "duru" etc. - hand-soaps took the place of the olive oil soap in the bathroom of this house. Liquid soap came in 2000's. This hand soaps were usually attached with a magnet to a soap-holder assembled to wall. This soap accessory was father's a special choice, as he did not like a soap melting on the wet surface of the sink. He used warn his kids; it is necessary to outpouring lather on the soap stayed after hand-washing, as dirty lather producing bacterium.

Figure 1-2. Non-designed Hand-Made Olive-Oil Soaps

Figure 3- 4 - 5. Shampoos, mass produced hand soaps took the place in use of Hand-made olive-oil soaps in daily life

Recalling my lathering days and have dropped chunk of a soap to my head make me to understand why olive oil soap was not charming at that time? Why the shampoo and the pink hand-soaps were more attractive? It was a design and creativity issue. Products developed with creativity are creating the sectors. Design communicates with our senses, emotions and effects on our choices. As an example, glamorous shampoos, mentioned above in memories, scratched in our mind and memories with its visual and odour communicating with me, was designed. Olive-oil-soaps of that time were modest, not designed or not promoted creatively and charmingly. Cosmetics were promoted with the help of design win the consumption rates. There were no ads other than promotion of olive-oil-soaps by parents at home that was individuals' efforts rooted from parents' habits. The green color, the smell, the bottle, the label of the shampoo was remarkable as it was designed glamorously. Today, some people, users, - including myself- are seeking for olive-oil-soaps with lavender, coat-milk, daisy etc. What happened? And why are we backtracking?

What is the research question of this study? This study is researching on "how the locally produced olive-oil-soap in Turkey, specifically in Aegean, can take its reputation by creativity and sustainable design?" What are the possibilities for – or how could be- "design-oriented production-consumption model" or a business model generated with design of Product, Service and System (PSS)? Its aim is to discuss this issue and present some examples and possible solutions.

2. **THE FACT**: COSMETICS OF THE 50'S MIND-SET AND DESIGN

Most of the industrially produced products in our daily life have toxic material that are inhaled, eaten or infiltrated by our skin (McDOUGH & BRAUNGART, 2002, pp. 3-5). Cosmetics are one of them. The fact is that most of the cosmetics contain chemicals, harmful for skin, causing various cancers, allergies and dirtying waters on the planet. The mindset of the cosmetic industry, as a system, rooted from 50's culture in US that is based on idea of "better living through chemicals". A documentary called "Story of Cosmetics" shows that laws, governments, producers, brands, design industry and advertisements as a whole follow this mindset in US, which is globally ego-centric, is not eco-centric and not focusing on to protect human-health, eco-system in a wide range (LEONARD, 2010).

Personal cleansing products for hair and skin such as shampoos, liquid soaps, etc. are so charming with their graphics, packaging, advertisements and messages. But it is known that they are harmful for the skin. May be not all, but most of them contain chemicals which are not easily washed out of the skin and hair, and toxics get into body through skin and causes cancer is known commonly in recent years. Toxics from cosmetics to human body and to environment treat eco-system and health of human (LEONARD, 2010).

All media, including creative ones works as industrial system to produce and make them consumed by people. Industrial products have been produced and marketed within a collaboration of "design". As a whole, mass production and consumption loop has created an understanding of "if you buy these, you will be happier, more beautiful, etc..." (McDOUGH & BRAUNGART, 2002) In this sense, cosmetics are very critical products, as serving for personal care in this loop, mostly says: "if you buy this, you will feel better, look beautiful and healthy…" Let's think what shampoo ads give a message to usually women consumers: "Your hair will be shiny, clean, smell good. You will be attractive. You better have this". Consumerist culture has been outspreaded from early industrialized countries. In this planet, we all have still been living in this track since industrial revolution.

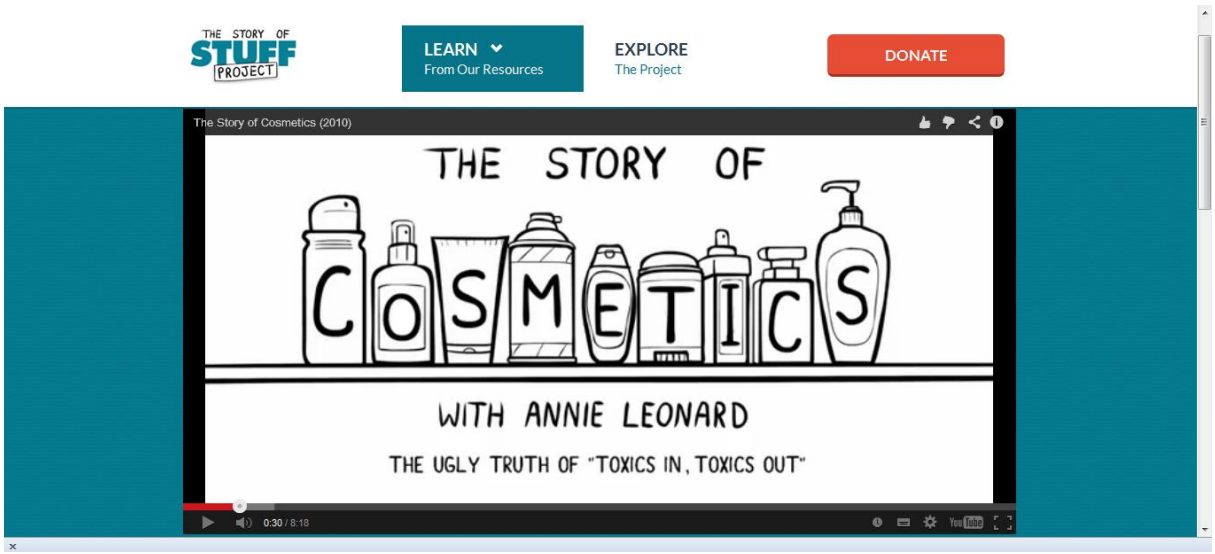

Figure 6. Cover of a Documentary called "The Story of Cosmetics",
By Annie Leonard (2010) from The Story of Stuff project
Image Source: http://storyofstuff.org/movies/story-of-cosmetics/

Why 50's mindset does dominate the system of cosmetics? Not only was the view of "better living through chemicals", but also design / material culture has been climbing up since 19th century and reached to a peak with the acceleration of "Modernism". Especially in 50's, "design" start to become a powerful tool and used to create "a new life style" after 2nd World War. As follows, globalization, economic-oriented mindset pushed to increase globally traveling goods. For mass consumption, chemicals are added to goods, including cosmetics in order to produce speedily, in mass amounts in large variety for choices, prices, etc. and to exacerbate consumption globally. This system has been focused on economy, and can be called "economic-oriented" or "ego-centric", not widely zooming in human-health, ethics and environmental issues, so it is not human-centered and ecological- oriented (McDOUGH & BRAUNGART, 2002, pp. 18-24)

3. THE ACT: ECO-CENTRIC VERSUS EGO-CENTRIC

Have you ever watched an advertisement that is warning explicitly mothers that "this shampoo is good for your babies' skin, and not burns their eyes but this shampoo contains formaldehyde and 1,4 dioxane are chemicals[1] which links to carcinogenic chemicals?" Obviously it is not common to see such an advertisement, but it is often to find environmentalist documentaries, campaigns, social networks which are informing users and developing a conscious of public, based on studies in science and product, service and system design through the term of sustainability. The cosmetic industry is in an ego-centric[2] manner, as only caring for consumption and economy.

Ecological awareness and critiques on products designed with "cradle to grave"[3] approach had seen showing its face in late 19th century when the industrial revolution and mass-production started, various writes discuss about impacts of industrialization on ecological system, but it took an almost a decade it to be realized by industry. Actual results good for environment has started to show up itself in 90's (McDOUGH & BRAUNGART, 2002, pp. 45-50). Beyond the mass-production system of cosmetics containing toxics, ecological awareness in the science of chemistry, the field of design, governmental regulations regarding to the global sector, has been putting some efforts in barrowed manner from activist thinking, obvious good acts started to be seen in 90's as parallel to what stated by authors; McDough & Braungart of the book called "Cradle to Cradle" in the chapter titled "*Why being "Less Bad" Is No Good*". This activism reflects on the consumers, creating consciousness in social network.

Green chemistry is 90's terms in science, clearly defined in a book titled *"Green Chemistry"* in 1998, concerning about toxicity; hazardous chemicals and materials for environment and health with the applications of principles[4] into design of products and processes for sustainable future. It refers to

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Notes:

[1] "We're washing our kids in tubs full of toxic suds! Dozens of children's bath products analyzed at an independent laboratory in 2009 were found to contain formaldehyde and 1,4 dioxane, two chemicals that cause cancer in lab animals and are classified as probable human carcinogens. (See note 1). Popular brands containing these chemicals include Johnson's Baby Shampoo, Sesame Street Bubble Bath and Huggies Naturally Refreshing Cucumber & Green Tea Baby Wash. The companies argue that each product contains just low levels of these toxins – but there shouldn't be any carcinogens in baby shampoo at all. Period. The good news is, many companies have already figured out how to make excellent products without the toxic chemicals. To learn more check out: http://www. safecosmetics.org/toxictub" (LEONARD, 2010, p. 2)

[2] "**Egocentric**: **1**. Limited to or caring only about yourself and your own needs.[Wordnet], **2**. Being selfish, egoistic or egoistical. [Eve - graph theoretic], **3**. Being egotistic or egotistical. [Eve - graph theoretic], **4**. Being self-centred or self-absorbed. [Eve - graph theoretic], **5**. Being narcissistic. [Eve - graph theoretic], **6**. Being vain or conceited. [Eve - graph theoretic], **7**. Being thoughtless or inconsiderate.[Eve - graph theoretic]" (DICTIONARY, -)

[3] Linear, one way "from cradle to grave" design refers to consumer products designed with valuable, expensive materials, which are after used, they fill the land, are not become nutrients for the soil. (McDOUGH & BRAUNGART, 2002, p. 27)

[4] **The 12 principles of Green Chemistry: 1.** Pollution Prevention, **2.** Atom Economy, **3.** Less Hazardous Synthesis, **4,** Design Safer Chemicals, **5**. Safer Solvents & Auxiliaries, **6**. Energy Efficiency, **7**. Renewable Feedstocks, **8**. Reduce Derivatives, **9**. Catalysis, **10**. Design for Degradation, **11**. Real-Time Analysis, **12**. Accident Prevention (ANASTAS & WARNER, 1998) coated from (BENIGN, 2007-2013)

early innovation and invention step which is unifying government, academy and industry with the ecological impacts (BENIGN, 2007-2013).

Environmental design[5] - green / sustainable /ecological design – is focusing on design solutions for human needs by product, system and services through a holistic view of natural system. Non-toxic, renewable materials, energy preserving are main concerns in planning, production and product life cycles. (ERLHOFF, M., and MARSHALL, T. (eds.), 2008, pp. 147-148)

While science of chemistry and discipline of design are sustaining studies on ecology as a recent perspective, found facts and solutions are effecting governmental decisions, reflecting on social acts and even consumers habits. REACH[6] is an approach of EU to restrict the use of hazardous chemicals for public health and environment used industry by merging previous 40 regulations. It is registering; evaluating, authorizing and restricting chemicals not only used, produced in EU, but also produces in the rest of the world imported to EU countries (YEN, 2013). This approach is one of a reversed impact of 50's mindset, while reversing the system and trying to cut off negative effects of hazardous chemicals, calling forth new issues such as innovations in chemistry, design and business for industry including cosmetics sector.

Media, campaigns and acts through social network through internet is serving for users' conscious and creating a database for safer cosmetics (SAFE COSMETICS, 2011). Parallel to approach of EU, in U.S., FDA[7], authority over cosmetics has started a federal act against hazardous chemicals to inform users, firms about cosmetic-use, production, labeling and ingredients by informing trough laws and regulations, creating an awareness and conscious, again.

Regarding to the focus of this study, shampoos as personal care products (PCP) are researched in the web site of FDA, it is found that shampoos are one of the PCP under the law of U.S., as well as any substance intended for use as a component of a cosmetic product, but soap is not included. Soap[8] is

[5] "Environmental design is a framework that situates the planning, production, and evaluation of objects of every scale, including products, buildings, parks, human settlements, and infrastructure, in a reciprocal relationship with the functioning and resilience of natural systems. … In 1987 the Bruntland Commission codified the term "sustainable development," joining the use of natural resources and environmental protection to human need over time. Like ecology before it, (>) sustainability presents a holistic view of the function and value of natural systems, but establishes human (>) need as the baseline metric to evaluate success. Sustainable design strategies consider the full life cycle of products and measure the embodied energy of processes or building (>) components. This allows for an accounting of energy and material (>) consumption and a measure of environmental cost. Environmental design within the paradigm of sustainability includes the use of nontoxic, renewable raw materials, product recycling, and natural resource preservation." (ERLHOFF, M., and MARSHALL, T. (eds.), 2008, pp. 147- 148)

[6] "REACH (**R**egistration **E**valuations **A**uthorization and **R**estriction of **Ch**emicals), On June 1, 2007, the EU began to implement a new approach to the management of chemicals in EU commerce. The REACH directive simplifies and consolidates more than 40 former regulations in an effort to balance two EU goals: to protect public health and the environment from hazardous chemicals and to ensure the continuing competitiveness of European industry. Although certain chemicals are exempt entirely, and requirements for the other chemicals are being phased in over 11 years, the law generally will apply to nearly all chemicals in EU commerce, including imported chemicals, chemical mixtures, and certain articles that release chemicals to the environment.
The REACH legislation is based on a proposal developed by the EU General Directorates for Enterprise and Environment, which was adopted by the European Commission in February 2001. The draft law was revised several times in response to public comments and amendments adopted by the European Parliament and Council of Ministers (which is comprised of the executive officers of EU member states). The final regulation is binding on all member states." (YEN, 2013)

[7] **FDA (U.S. Federal Food and Drug Administration) " FDA Authority Over Cosmetics**
In the United States, federal laws are enacted by Congress. In order to make the laws work on a day-to-day level, Congress authorizes certain government agencies - including FDA - to create regulations. A change in FDA's legal authority over cosmetics would require Congress to change the law. The two most important laws pertaining to cosmetics marketed in the United States are the Federal Food, Drug, and Cosmetic Act (FD&C Act) and the Fair Packaging and Labeling Act (FPLA). FDA regulates cosmetics under the authority of these laws." (FDA, March 3, 2005, updated August 3, 2013)

[8] "**Soap** What It Is and How It Is Regulated
Ordinary soap is solely made up of fats and an alkali. In the past, people made their own soap from animal fats and wood ashes.
Today there are very few true soaps in the traditional sense on the market. You might recognize these soaps as products marketed with characteristics such as "pure." "True" soaps are regulated by the Consumer Product Safety Commission, not FDA, and do not require ingredient labeling. > Most body cleansers on the market today are actually synthetic detergent products and come under the jurisdiction of FDA. These detergent cleansers are popular because they make suds easily in water and don't form gummy deposits. Some of these detergent products are actually marketed as "soap" but are not true soap in the common and legal definition of the word.
If a cosmetic claim is made on the label of a "true" soap or cleanser, such as moisturizing or deodorizing, the product must meet all FDA requirements for a cosmetic, and the label must list all ingredients. If a drug claim is made on a cleanser or soap, such as antibacterial,

considered as natural, traditional cleanser, made out of fats, oils and aches, rarely find in the market, called "true soaps". Even though ordinary soaps containing synthetic detergents, perfumes, colors and drugs such as antibacterial, antiperspirant, or anti acne, FDA does not require labeling for soaps under laws (FDA, February 1979, Updated February 3, 1995). This is considered as bad reputation, but it does not mean that all soaps should be considered as safe cleansing products, causing allergies and other skin problems. This information is also provided on the web site of FDA through an article written by a consumer (HOPKINS, 1979). Publishing a consumer's article is in an ethical manner for an issue that is not covered by laws for informing public as a part of the act.

With the help of this non-toxic movement, spurred by awareness on toxicity; green chemistry, ecological / sustainable design and human-centered approaches, innovations are possible in chemistry, design and business for cosmetics sector. Non-toxic movement is promising possibilities within an ecocentric[9] manner against to only economy-centered industry with little regard for human and environment. Among the personal cleansing products, it seems that natural soaps produced traditionally could be an issue to research on and develop it to market of natural soaps.

It is getting clear that why are we backtracking to mom's olive-oil-soaps.

4. OLIVE-OIL-SOAP: LOCAL PRODUCTION IN TURKEY

Natural olive-oil-soap, as a personal cleansing product is demanded increasingly by users as a result of impact of health damaging cosmetics. These soaps are called "true soaps"[10], hand-made, natural products produced by small entrepreneurships which are rare, creating a niche market. These soaps are considered as an oldest cleaning agent for body and goods, which was made naturally out of fat or oil, base and ashes. The reaction between vegetable oil and / or fat of animal or fatty acid and base, and being mixed with aches makes soaps.[11]

In last 150 years, with the mindset of modern production, "true soaps", organic cleaning agent has reached its deleterious ingredients. It is known that the soap industry had started with the production of "Cashmere Bouquet" by W. Colgate in U.S. (1866), "Ivory" by Procter & Gamble in U.S. (1879) and "Sunlight" by Lever in England (1884), contained additives, packaged, and this production had been reflected on production of non-industrialized countries.[12]

In Turkey, natural soap production was common in Ottoman Empire by local small-scaled soap-makers as a respectable manufacturing in regions where olive-trees grown and olive-oil produced in. Well known olive-oil-soaps of Ottoman period were flower soap, musk soap, sultan's soap, pasha's white and black soaps, pied soap, black soap, spot soap, fez soap and other soaps taken its name from place where they were made such as; Tripoli soap and Crete soap. On the other hand, at the end of 19th century, bar of natural soaps were diversified as cleansing products for goods in the shape of cream, powder and granules such as cream soap *(arap sabunu)*, white soap in granules and olive-pomace-oil-soap, which are rarely in use, but they can be found today in the soap market of Turkey.[13]

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antiperspirant, or anti acne, the product is a drug, and the label must list all active ingredients, as is required for all drug products." (FDA, February 1979, Updated February 3, 1995)

[9] **Ecocentric** (ˌiːkəʊˈsɛntrɪk) — ***adj*** having a serious concern for environmental issues: *ecocentric management* (DICTIONARY, -)

[10] (See Note 7)

[11] T.C. Başbakanlık Devlet Planlama Teşkilatı, 9. KALKINMA PLANI 2007- 2013,
Hazırlayan: Kimya Sanayi Özel İhtisas Komisyonu, Sabun-Deterjan-Kozmetik-Boya Çalışma Grubu Raporu (KİMYA SANAYİ ÖZEL İHTİSAS KOMİSYONU, 2008, pp. 9 - 16) (*Prime Ministry of Turkish Republic, State Planning Organization, 9TH DEVELOPMENT PLAN 2007- 2013, By Private Specialization Commission of Chemical Industry, Soap-Detergent-Cosmetics-Paint Working Group, 2008)*

[12] (*ibid*., pp. 9-16)

[13] (*ibid*., pp. 9-16)

Figure 7 – 8. -9. 19th Century Ottoman Soaps and The black one from 20th Century
Image source: http://abihayatsergisi.com/?p=5955

Machine-made soaps started to be produced in the middle of the 20th century in Turkey. Today, with investments on cosmetic sector, mass production of soaps has taken its important place in the sector. On the other hand, local olive-oil soap making called *"sergi sabunculuğu"* in Turkish, - *soap-making for exhibitions* – was referring to limited amount of manufacturing with traditional methods rooted from Ottoman time, has still been continuing in Aegean and Mediterranean Regions of Turkey where olive trees grown. In these regions, cities where soap industry has increased in importance today are Ayvalık, İzmir, Edremit, Kilis, Gaziantep ve Mersin (kimyamühendisi.com, 2003, p. 1). The mass produced soaps are not considered to take the place of this locally produced soaps, the local-soap-making is estimated to continue as a niche market branch by providing nostalgic products.[14]

Soap production in Turkey is facilitated by both big family firms established where the traditional soap-making were existed in the history, and by many SMEs. Cooperatives are only public organizations which are producing soap in soap production sector. According to on a survey completed in 2004, 80 firms were determined in the list presented in The 9TH Development Plan for 2007- 2013 published by Turkish State Planning Organization. Based on this publication, 61 SMEs determined that are active in soap production among 1400 firms facilitating in chemistry sector in Turkey[15].

According to the Development Plan, in soap sector, natural and traditional "true soap" production by SMEs is emphasized as its importance as being alternative market in order to develop the potential. It is considered as one of the opportunity of the sector in the SWOT analysis. It is underlined to give countenance to this niche production with financial, research and development, engineering and creativity – means design- substantiate with the view of ecological regulations such as REACH in order to develop products and serve for the consumers' demand and usage of "true sops" in Turkey (SABUN SANAYİ ÇALIŞMA GRUBU, 2007, pp. 31, 32, 33, 39, 43).

As it is reviewed briefly the soap making in Turkey, the olive-oil-soap production, usage, and tradition has its potential in this geography, but the entrepreneurs need support for the development of products financially, scientifically and with the help of design from the perspective of ecological, non-toxic movement. Basically, there is a need for this personal cleansing product in Turkish sector. It is obvious that "Design Thinking" could be away to develop not only the products, but also production-consumption system and services ecologically generating from traditional and agricultural knowledge. With the help of the local and traditional knowledge, innovative small business models can be created and realized. Innovative soap-making system, soap providing services and products can

[15] (*ibid*., pp. 20-21)

be created by focusing on needs of nontoxic personal cleansing products and evaluating local opportunities and employing – especially female employing- can.

It is important to bring some efforts – selected examples - here, have already done in Turkey by individuals as entrepreneurs, cooperatives, and local governs - universities as producers, brands, researchers, for the niche market of olive-oil-soap. Imroza, Tariş / Ta-ze are local brands, and Sarpıncık Soap Workshop is a local production model as result of a collaborative project by applied Karaburun Municipality and Yaşar University in Izmir are selected examples.

A local olive-oil-soap brand from Gokçeada / Çanakkale (Imros Island) is IMROZA, is and family entrepreneurship established in Imros, making olive with "the cold technic" which is containing glycerin in the soap (IMROZA, 2010).[16] The workshop and the shop of Imroza are locating in a same space, which allows customers to see the production with products on selves. Packaging design of soaps are simply designed and economically produced out of recycled paper. Olive-oil-soaps are made in simple prismatic shape, stamped the brand on it, in natural colors - without dye added – with the aroma of actual herbs, flowers and foods – such as lavender, daisy, and coffee granules, added into soaps.

Figure 10. Imroza Soaps
Image source: http://www.imroza.com/lavanta.html

TA-ZE is a local brand created by one of the biggest cooperative of olive and olive-oil production in Turkey. TA-ZE is created with the mind set of design in 2001. Locally and Globally marketed products are presented in shops designed with brand identity. Products are simply packed with paper low weight in gram and simply labeled with stickers which have function of fixing the package and informing the user about the product. Briefly, TA-ZE is an example for a brand of Izmir, locally producing true olive-oil-soaps and marketing globally as a result of "Design Thinking in natural soap production".

Figure 11. 12. TA-ZE Soaps by Tariş
Image source: http://www.ta-ze.com.tr/tr/en/products/detail/400.aspx
http://www.ta-ze.com.tr/tr/en/products/detail/1390.aspx

"Sarpıncık Village Soap Workshop" in Karaburun, Izmir is an example for an application of a collaborative project[17], run by *Yaşar University* and as a partner; *Association of Karaburun Villages Service Provider* with the support of *Karaburun Municipality*. The project titled "*From Mimas's Olives to Sarpıncık Soaps"* is supported by Izmir Development Agency with the *"Program of Financial Support for Economical Variety in Rural Area"*. 12-month-project leaded by organizations of trainings. Local public were invited to soap-making classes and 35 participants were trained. On The role of the University was provider of technical and scientific support. Departments of Business, International Commerce and Finance, Foreign Trade Program of Vocational High School were supported the training programs; Department of Graphic Design and Film Design gave technical and application support for design facilities – graphics, logo, packaging, web design - and EU Center served as supervisorship and administrative facilities. Also, IT Center hold the task in Web Site facilities and Media Center of the University took a role in promoting the project in the media (SARPINCIK SOAP WORKSHOP, 2011).

This project, aiming the balance between environment and development is a full-equipped with actors from academy, local community – *especially woman employment in the village as seen in the documentary movie in the website* - , local governors and NGOs is a collaborative project model for the application supported by the government for "sustainable development". Not only how the project established and applied, but also it creates a model for local olive-oil-soap making in 21st century is meaningful by recalling and sustaining the local, traditional knowledge for eco-centric movement.

Figure 13 - 14. Sarpıncık Soaps and its package design (left)
Image source: http://www.sarpinciksabunatolyesi.com/default.aspx?ad=AnaSayfa
http://www.sarpinciksabunatolyesi.com/default.aspx?ad=nergiz

5. A STUDY CASE: PPS FOR WOMEN'S SOAP PRODUCTION IN SEFERİHİSAR

The one and last main aim of this study is to present a case of a "social responsible design"[18] by Eda KÖSE[19] as a model of local olive-oil production and consumption system designed in the thesis along with products and service design. It is considered as a local business model as a result of collaboration between design/designer and;

1. Local Women Community,
2. Woman Labor Houses,
3. Council of Women and
4. Municipality of Seferihisar.

[17] **Project Coordinator:** Zerrin Özirs Öztan, **Project Supervisor:** Ayselin Gözde Yıldız (from Yaşar University, EU Office) **Soap Making trainer:** Ergun Okur**, Project Start Date:** July 2011, **Project period:** 12 months, **NGO Supporter:** Association of Karaburun Environment Culture Tourism (SARPINCIK SOAP WORKSHOP, 2011)

[18] "Thus, socially responsible designs simultaneously take account of the contexts in which they are created, and draw notice to the fact that the majority of design processes overlook or discount the needs of underserved communities. Numerous organizations have emerged that attempt to rectify or alleviate social inequities, often with innovative and far-reaching results" (ERLHOFF, M., and MARSHALL, T. (eds.), 2008, p. 368).

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The dissertation is titled as *"Design to Steer Local Communities towards Sustainability: A PSS*[20] *Design to Encourage Women in Olive Oil Soap Production in Seferihisar"* is exploring both theoretical study and application project in design, generated with "Design Thinking"[21].

The aim of her thesis[22] is "to explore the promising collaborative design approach between local communities and designer/s for the transformation towards a sustainable future". (KÖSE, 2011, p. iii) In theoretical part, designers' contribution with local communities is investigated, for the application project. Various field researches in Seferihisar[23]were conducted to find out women's craft works. Finally, olive-oil-soap making is underlined as women's traditional domestic production. Through serial workshops on soap-making with the women community in a village of Seferihisar, has done and the local knowledge is analyzed. At the end of the analysis, a system design, service and products (sopas9 were designed within collaboration with women. The project called "*KöpükKöpük*" (Bubble & Bubble) is presented below.

The starting point of "this system design" generated from **a gap** in women's soaps: They make soaps, try to sell in the local bazaars, but it was not demanded. It is interpreted because of "design thinking" was missing in women's effort. So the designer was an actor, catalyzer to create the way.

gives to...	Design Consultancy	Municipality of Seferihisar (Organiser)	Women Labor Houses (Workshops)	Local Women Community	Local Ingredient Suppliers	Schools / Public areas
Design Consultancy	- to create scenarios to steer local communities towards sustainability - to create scenarios for the efficient use of local resources	- design and development of ideas for sustainable local development	- design and development of ideas to add value to their portfolio	- design and development of ideas to strengthen their enterprise	- design and development of ideas to facilitate entry into a new business	- design and development of ideas to create the awareness towards the use of natural locally-produced products
Municipality of Seferihisar (Organiser)	- inputs - new perspectives for local collaborations towards a sustainable future	- to facilitate communication between all stakeholders - to provide logistics	- logistics and communication with other supplier for the transfer of goods	- to strenghten their enterprise	- to facilitate entry into a new business	- the product to be used for creation of awareness towards the use of natural locally-produced products
Women Labor Houses (Workshops)	- inputs - new perspectives for local collaborations towards a sustainable future	- competence in integration of women community for social cohesion and sustainable development	- to encourage the community to be involved - to provide the specific knowledge for production	- the specific knowledge for production -knowledge to increase awareness on harmful cleaning products	- feedback about the materials provided (other neccessary ingredients for soap production)	
Local Women Community	- inputs - new perspectives to collaborate with local communities	- to take part in action towards social cohesion and sustainability	- labor for production - the raw material (Olive Oil)	- to be involved in community-based sustainable local development		
Local Ingredient Suppliers			- raw materials for production (other neccessary ingredients for soap production)		- to provide other neccessary raw materials for production	
Schools / Public areas		- feedback about the product				- to be 'nvolved for the use of natural cleaning alternatives - to collect feedback about the system

Figure 15. Stakeholders Motivation Matrix
Image Source: (KÖSE, 2011, p. 63)

[20] **PSS**: (Product – Service – System) Design

[21] "**Design Thinking** We have seen that a powerful methodology for innovation has emerged. It integrates human, business, and technological factors in problem forming, -solving, and -design: "Design Thinking." Its human-centric methodology integrates expertise from design, social sciences, engineering, and business. It blends an end-user focus with multidisciplinary collaboration and iterative improvement to produce innovative products, systems, and services. Design thinking creates a vibrant interactive environment that promotes learning through rapid conceptual prototyping (Fig. 1). Design Thinking is about the creation of, as well as adaptive use of a body-of behaviors and values. This goal stands in sharp contrast to, while complimentary to, the predominant disciplinary model based on the creation and validation of a body-of-knowledge. (PLATTNER, et al., 2011, p. xiv)

[22] **Supervisor**: Assist. Prof. Dr. Mine Ovacık Dörtbaş

[23] The first Citta Slow *(Slow City)* of Turkey

State buildings of Seferihisar was thought, workers in state offices can use olive-oil-soaps as an eco-frienly personal cleaning product at work. The sime-mass consumption was applied into system. By training women will learn soap-making, the municipilaty would deliver products to ofical buildings. In this case, production and the consumption system was set up.

Following charts and images shows the exsisting and sugessted system (Fig. 17 – 20). Following charts, images shows product design conceps of soaps (Fig. 21-24). Figure 27 and 28 is the evaluation of Concepts in terms of Innovation for social Sustainibility and Environmental Sustainibiliy. Out of this comparison, liquid oli-olive-soap desiceded to produce for mass-use in offical state working places (Fig. 25-26). Also, throug a social media, web site, flyers designed to communicate with women community, invite them soap-making tarinings and to increase the enviromental concious of users for olive-oil-sops.

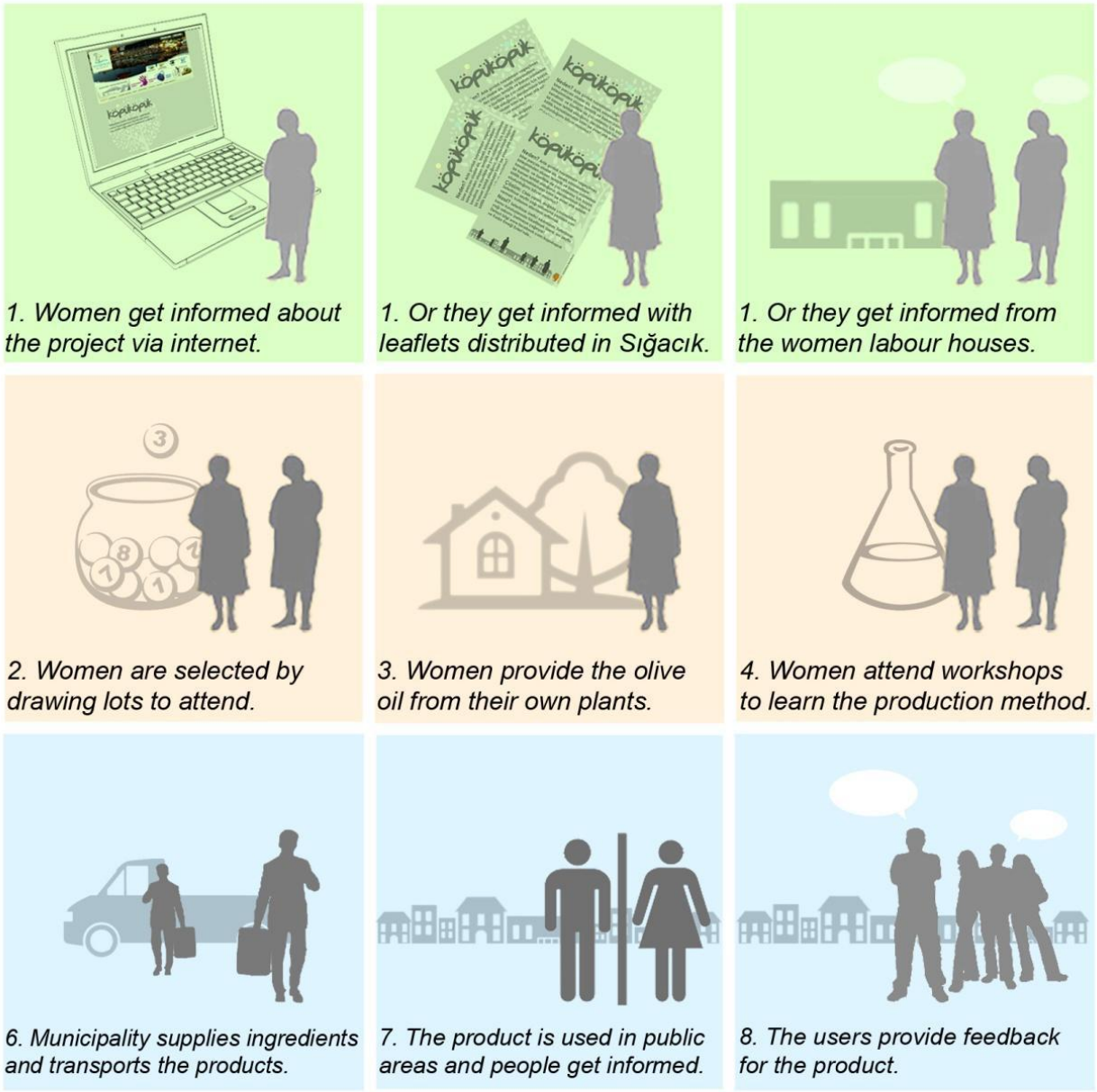

Figure 16. Interaction Storyboard
Image Source: (KÖSE, 2011, p. 61)

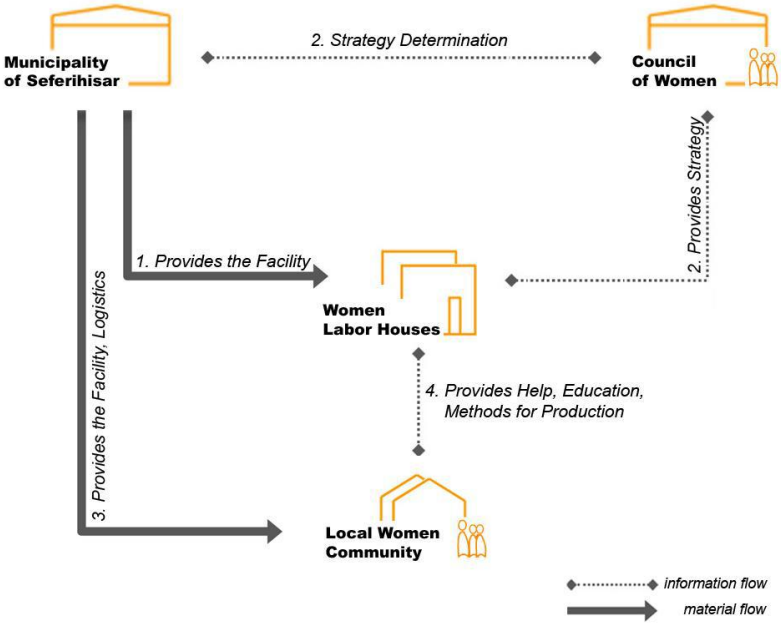

Figure 17. System Map of Women's Enterprise in Seferihisar
Image Source: (KÖSE, 2011, p. 32)

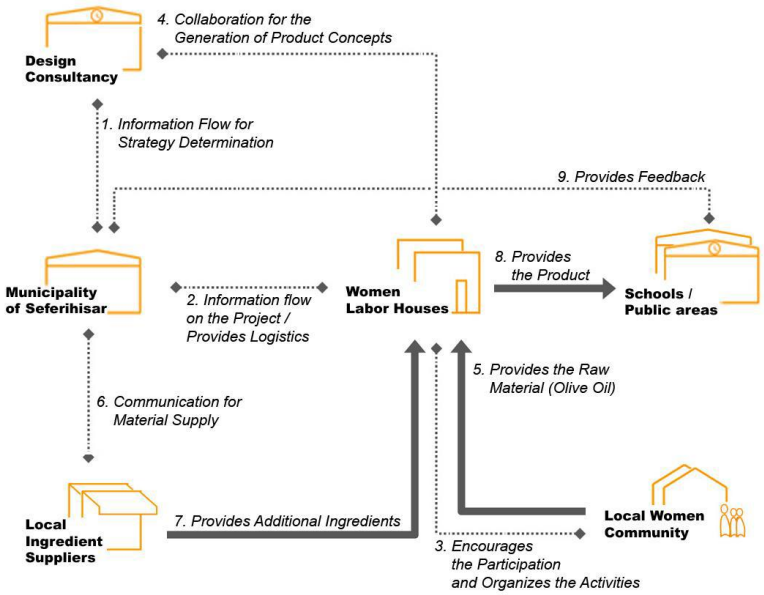

Figure 18. System Map of The Project that suggested
Image Source: (KÖSE, 2011, p. 60)

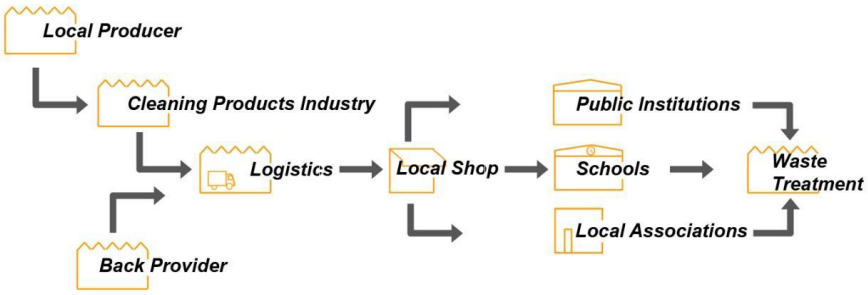

Figure 19. Current Life-cycle Scheme of Cleansing Products Provided by Cosmetic Industry
Image Source: (KÖSE, 2011, p. 43)

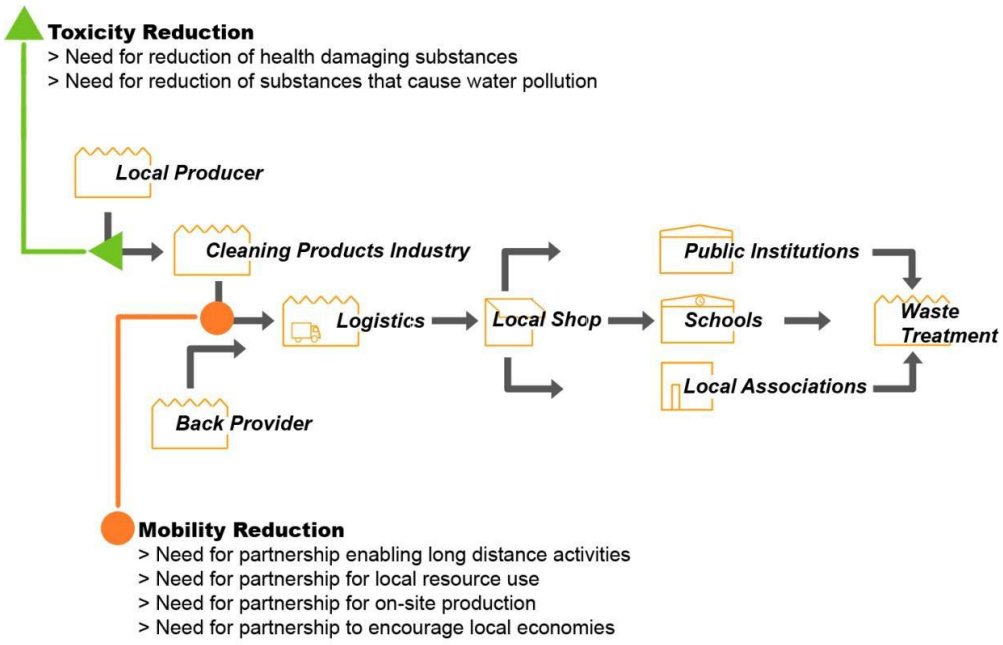

Figure 20. Main Sustainability Impacts Identification
Image Source: (KÖSE, 2011, p. 44)

Figure 21. Creative Sessions - Concept 1: The Soap Tree
Image Source: (KÖSE, 2011, p. 49)

Figure 22: Creative Sessions - Concept 2: Acele Bacı,
Image Source: (KÖSE, 2011, p. 50)

Fig 23. Creative Sessions - Concept 3: One Soap to Save One Fish
Image Source: (KÖSE, 2011, p. 50)

Fig 24. Creative Sessions - Concept 4: Köpüköpük
Image Source: (KÖSE, 2011, p. 50)

Figure 25. The Product: Liquid Olive- Oil- Soap
Image Source: (KÖSE, 2011, p. 55)

Figure 26. Product Interaction with the Final User
Image Source: (KÖSE, 2011, p. 56)

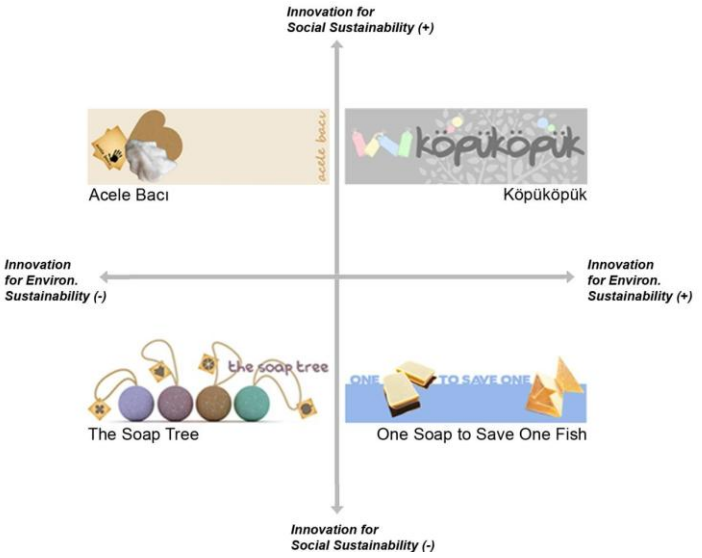

Figure 27. Clustering and Organization
Image Source: (KÖSE, 2011, p. 52)

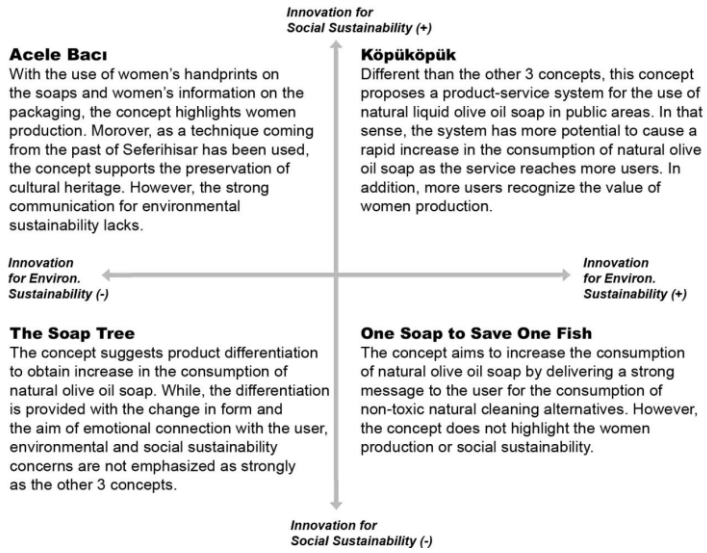

Figure 28. Description of Characteristics
Image Source: (KÖSE, 2011, p. 53)

Figure 29. Communication of the Product
Image Source: (KÖSE, 2011, p. 58)

CONCLUSION

“True olive-oil-soaps” are potential ecological personal cleansing products for eco-centric cosmetic world. In recent years, backtracking to these olive-oil-soaps, within ecologic movement, “green chemistry” and “sustainable design thinking” have potential for innovation and invents in business, chemistry and design.

In Turkey, with the help of the cultural, traditional knowledge of soap-making, local productions and niches market of hand-made olive-oil-soaps can be recreated by research and development in collaboration between local communities, local governments, NGOs and professionals, academicians in green chemistry, eco-design and green business, etc.

How about being 100% out of nontoxicity in the world of cosmetics?
“We have to be More Good. No less bad. “ (McDOUGH & BRAUNGART, 2002, p. 67)

BIBLIOGRAPHY

ANASTAS, P. T. & WARNER, J. C., 1998. *Green Chemistry; Teory and Practice*. New York (NY): Oxfort University Press.

BENIGN, B., 2007-2013. *Beyond Benign, Green Chemistry Education*. [Online]
Available at: http://www.beyondbenign.org/greenchemistry/12principles.html

[Accessed 31 10 2013].

DICTIONARY, W. E., -. *World English Dictionary*. [Online]
Available at: http://dictionary.reference.com/browse/ecocentric

[Accessed 29 October 2013].

DICTIONARY, W. O., -. *Webster's Online Dictionary*. [Online]
Available at: http://www.websters-online-dictionary.org/search.php?word=egocentric
[Accessed 29 October 2013].

ERLHOFF, M., and MARSHALL, T. (eds.), 2008. *Design Dictionary*. Basel, Boston, Berlin: Birkhäuser Verlag AG.

FDA, February 1979, Updated February 3, 1995. *U.S. Food and Drug Administration*. [Online]
Available at: http://www.fda.gov/Cosmetics/ProductandIngredientSafety/ProductInformation/ucm115449.htm
[Accessed 29 October 2013].

FDA, March 3, 2005, updated August 3, 2013. *U.S. Federal Food and Drug Administration*. [Online]
Available at: http://www.fda.gov/Cosmetics/GuidanceComplianceRegulatoryInformation/ucm074162.htm
[Accessed 29 October 2013].

HOPKINS, H., 1979. *FAD, article by FAD Consumer*. [Online]
Available at: http://www.fda.gov/Cosmetics/ProductandIngredientSafety/ProductInformation/ucm115449.htm
[Accessed 29 October 2013].

IMROZA, 2010. IMROZA Ada kokulu sabunlar. [Online]
Available at: http://www.imroza.com/sabun_hakkinda3.html
[Accessed 20 October 2013].

KIMYAMÜHENDISI.COM, 2003. *kimyaevi.org* [Online]
Available at:
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CDkQFjAB&url=http%3A%2F

%2Fwww.kimyaevi.org%2FTR%2FYonlendir.aspx%3FF6E10F8892433CFF679A66406202CCB07A68898AA874493B&ei=MTRyUvyAKYjUtQbb_oHYDg&usg=AFQjCNFpQ1sTLqctGbtZvHY9U0QA7xqjbA&sig2=C
[Accessed 27 October 2013].

KİMYA SANAYİ ÖZEL İHTİSAS KOMİSYONU, 2008. *9. Kalkinma Plani 2007-2013, Turkey: T.C. Başbakanlik Devlet Planlamam Teşkilati,.*

KÖSE, E., 2011. *Design to Steer Local Communities towards Sustainability: A PSS Design to Encourage Women in Olive Oil Soap Production in Seferihisar*, Izmir: Thesis, Graduate School of Design Studies, Izmir University of Economics.

LEONARD, A., 2010. *Story of Cosmetics*. [Online]
Available at: http://storyofstuff.org/movies/story-of-cosmetics/
[Accessed 27 October 2013].

McDOUGH, W. & BRAUNGART, M., 2002. *Cradle to Cradle.* First ed. New York: North point Press.

PLATTNER, H., MEINEL, C., LEIFER, L. & (eds.), 2011. *Design Thinking*. - ed. Berlin Heidelberg: Springer-Verlag.

SABUN SANAYİ ÇALIŞMA GRUBU, 2007. *Sabun Sanayi Çalişma Grubu Raporu, 9. Kalkinma Plani Kimya Sanayii Özel İhtisas Komisyonu,* -: -.

SAFE COSMETICS, 2011. *The Campaign for Safe Cosmetics*. [Online]
Available at: http://www.safecosmetics.org/
[Accessed 26 October 2013].

SARPINCIK SOAP WORKSHOP, 2011. *Sarpincik Sabun Atölyesi*. [Online]
Available at: http://www.sarpinciksabunatolyesi.com/default2.aspx?ad=projemiz
[Accessed 20 10 2013].

YEN, H. J., 2013. *Report by Congressional Research Servise: Chemical Regulations in the European Union (EU): Registration, Evaluation, and Authorization of Chemicals.* [Online]
Available at: http://www.fas.org/sgp/crs/row/RS22673.pdf,
[Accessed 29 10 2013].