

Herbalist-Customer Profile in Medicinal and Aromatic Herbs Trade: A Case Study of Kahramanmaraş, Turkey

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Abstract

This study was conducted with nine herb firms and 99 customers shopping at those herb stores. A questionnaire consisting of two separate sections was given to the herbalists and their customers, and face-to-face interviews were conducted. The study revealed that the top three most frequently purchased and sold herbs were *Mentha x piperita*, *Thymbra spicata*, and *Tilia tomentosa*. Thus, the first ranking of the causes for buying and selling these herbs are digestive system disorders, respiratory system disorders, nervous system disorders, cardiovascular disorders, and dermatological disorders.

Keywords: Herbalist, Medicinal and Aromatic Herbs, Trade, Kahramanmaraş

Tıbbi ve Aromatik Bitki Ticaretinde Aktar - Müşteri Profili: Kahramanmaraş İli Örneği

Özet

Bu çalışma Kahramanmaraş ilinde 9 aktar firması ve bu aktarlardan alış-veriş yapan 99 müşteri ile gerçekleştirilmiştir. Aktar ve müşterilerine ayrı ayrı iki bölümden oluşan birer anket uygulanmış ve görüşmeler yüz yüze yapılmıştır. Çalışma sonucunda aktarların en çok sattıkları bitkiler ile müşterilerin en çok satın aldıkları bitkilerin ilk üç sırasını *Mentha x piperita*, *Thymbra spicata* ve *Tilia tomentosa* oluşturmaktadır. Yine aktar ve müşterilerinin en çok tercih ettikleri bitkileri satma ve satın alma sebepleri arasında ilk sıraları sindirim sistemi bozuklukları, solunum sistemi bozuklukları, sinir sistemi bozuklukları, kalp-damar rahatsızlıkları ve cilt/deri hastalıkları almaktadır.

Anahtar kelimeler: Aktar, Tıbbi ve aromatik bitki, Ticaret, Kahramanmaraş

Introduction

The Turkish word “aktar” (herb shop/herbalist) has been derived from the Arabic word “attar” and means a shop or a person selling spices or fragrances (TDK, 2016). Herbalism, the history of which in Anatolia dates back as far as the 12th-13th centuries, is an important part of public medicine, which has traditional and cultural richness (Ünyazıcı, 2014). However, the use of herbs by humans for health purposes dates back to the primeval era (Koçyiğit, 2005). Apart from health, herbs are commonly utilized in various fields as food and spices, as incense, against the evil eye, in soap manufacturing, in the beverage and cosmetic industry, and in the treatment of animal diseases (Kendir and Güvenç, 2010; Faydaoğlu and Sürücüoğlu, 2011).

As the importance and popularity of phytotherapy, the treatment with drugs of plant origin, stood out in recent years (Güveloğlu, 2014), the herb shops from which such drugs are obtained have become attractive places of modern culture. It is

determined that the number of herbalists in Turkey is approximately 6000 and that they are mostly primary school and high school graduates, some being university graduates (Şekeroğlu, 2015; Çelik, 2014; Bayramoğlu, 2007). The rapidly increasing popularity of herbal plants and the increase in the diversity of both the domestic and imported herbal products cause an increase in the market share of these products and pose a risk to public health (Şekeroğlu, 2015). Because of this, herbalists must have a certain level of education/training concerning the use and trade of medicinal and aromatic herbs. Özgüven et al. (2005) stated that the number of medicinal and aromatic herbs that are included in domestic and foreign trade is 347. Considering that the Turkish flora currently is close to 12,000 (Güner, 2012), the number of taxa subjected to trade corresponds to about 3%. Considering the number of flora of the top 15 countries in the medicinal herb market and the number of medicinal herbs they subject to trade, it is known that the world average is 17.1% (Schipmann et al., 2006). As

can be seen, this subject emerges as a market that has not yet been fully utilized, and has a promising future. Thus, it must be ensured that the herbalist-customer relations in Turkey are well analyzed. Furthermore, herbal plant products and drugs should be provided in line with such analyses and unconscious herb collection from nature and unconscious consumption must be prevented

Materials and Methods

This study included nine herbalists selling medicinal and aromatic herbs, and the customers buying from them in Kahramanmaraş, a city in the Mediterranean Region. In the study, two separate questionnaires consisting of two sections, for the herbalists and the customers, were given. The questionnaires were administered face-to-face. The first section of both questionnaires aimed to identify their demographic characteristics. The second section of the questionnaire, given to the herbalists, aimed to identify the most traded herb species, the reasons for selling them, and the identification of customer profiles. The second section of the questionnaire, given to the customers, aims to identify the herbs most preferred by the customers and the purposes of using them. To this end, the snowball sampling method was used and in the evaluation of the questionnaire data, frequencies and cross-tables were employed.

Results and Discussions

In the study, questionnaires were given to nine herb firms and 99 customers. The demographic characteristics of the herbalists are presented in Table 1, and the demographic characteristics of the customers are presented in Table 4.

The ages of the herbalists completing the questionnaire varied between 29 and 69 years, and the average age was 45. Only one of the shop owners is female, and it is understood that this profession is male-dominated, which is also the case in general in Turkey (Akbulut and Bayramoglu, 2013; Çelik, 2014; Toksoy et al., 2010).

Table 1. Demographics features of herbalist

Features	Herbalist number	Percentage (%)
Age groups		
18-28	-	-
29-39	3	33,3
40-50	4	44,4
>50	2	22,2
Gender		
Male	8	88,9
Female	1	11,1
Educational status		
Primary education	4	44,4
High school	4	44,4
University	1	11,1

The minimum education period of the herbalists was five years and the maximum was 15 years; the average was 9 years, which corresponds the first year of the lyceum. Considering that the average years of education in Small and Medium Scale Enterprises (SMEs) in Turkey is six years, the educational level of the herbalists, which are SMEs, is above this average.

Although in the Circular on Herb Shops, Spice Shops, and Similar Shops, No. 5777, dated October 11, 1985 of the General Directorate of Medications and Pharmacology of the Ministry of Health, there is the clause stating: “No herbal mixtures shall be prepared, and no liquid or solid preparations of these shall be made nor sold” (URL1, 2016) in such shops that are active. Three of the herbalists that completed the questionnaire said that they had mixtures specific to themselves. Although other firms have stated that they did not prepare any mixtures, it was observed that products of unknown origin in pouches without labels were being sold. Since the herbalists have had no education concerning their profession, 56% stated that they acquired their information through a master-apprentice relationship and 44% by their personal curiosity from books, supplier firms, and the internet, respectively.

Table 2 gives the activity times of the herbalists, the products they sell, and the number of employees they recruit. According to this, the activity times vary between 5 years and 73 years, the average being 29 years. The

number of persons they employ is generally between one and five, and only in two herb shops, the employment of between 10 and 30 persons was notable. These firms (Herb Shop B, Herb Shop F) not only trade medicinal and aromatic herbs, but also are among the important dried nut and fruit marketing firms. The number of products sold by these firms varies between 200 and 1500, and they sell an average of 711 herbal products and drugs. The medicinal and aromatic products that these firms sell most are listed in Table 3, as indicated by the herbalists. However, since the annual amount of sold herbs in this list is not regularly kept, the statements of the herbalists

were taken as the basis. In a study conducted in 24 provinces and 214 herb shops in Turkey, Akbulut and Bayramoglu (2013) stated that the five most frequently sold herbs by herb shops are mint, linden, ginger, sage, and carob. The mentioned herbs are also among the most frequently sold products in the present study, as well; however, due to regional differences and preferences, the ranking is different. In the present study, mint is also the herb that is most frequently sold. Another similar study by Sargin et al. (2014) reports that the most frequently sold herbs in Alaşehir (Manisa) are thyme, yarrow, and flax.

Table 2. Structural analysis of herbalists

Company	Activity period (Year)	Employment situation (Person)	Product number
Herbalist A	15	2	>200
Herbalist B	25	30	500-1000
Herbalist C	73	1	500-1000
Herbalist D	18	5	1000-1500
Herbalist E	11	3	500-1000
Herbalist F	55	10	>1000
Herbalist G	43	5	500-1000
Herbalist H	5	1	>200
Herbalist I	15	4	500-1000

Table 3. Best-selling plants in herbalists

Botanical name	Family	English name	Turkish name	Part used
<i>Mentha x piperita</i>	Lamiaceae	Mint	Nane	Leaf
<i>Thymbra spicata</i>	Lamiaceae	Thyme	Zahter(Kekik)	Leaf
<i>Tilia tomentosa</i>	Malvaceae	Linden	Ihlamur	Flower
<i>Cassia fistula</i> *	Fabaceae	Senna	Sinameki	Flower
<i>Salvia absconditiflora</i> ^c	Lamiaceae	Sage	Adaçayı	Leaf, flower
<i>Rosa canina</i>	Rosaceae	Rose hip	Kuşburnu	Fruit
<i>Melissa officinalis</i>	Lamiaceae	Lemon balm	Oğulotu	Leaf
<i>Foeniculum vulgare</i>	Apiaceae	Fennel	Rezene	Leaf
<i>Urtica dioica</i>	Urticaceae	Nettle	Isırgan	Leaf, seed
<i>Zingiber officinale</i> *	Zingiberaceae	Ginger	Zencefil	Rhizom
<i>Ceratonia siliqua</i>	Fabaceae	Carob	Keçiboynuzu	Fruit
<i>Coffea arabica</i> *	Rubiaceae	Coffee	Kahve	Seed
<i>Nigella sativa</i>	Ranunculaceae	Nigella	Çörekotu	Seed
<i>Cinnamomum cassia</i> *	Lauraceae	Cinnamon	Tarçın	Bark
<i>Laurus nobilis</i>	Lauraceae	Laurel	Defne	Leaf
<i>Armeniaca vulgaris</i>	Rosaceae	Apricot	Kayısı	Fruit
<i>Cota altissima</i>	Asteraceae	Daisy	Papatya	Flowers
<i>Juniperus drupacea</i>	Cupressaceae	Syrian juniper	Andız	Cone

*Exotic species, ^cEndemic species

The herbalists state that their customers purchase these herbs primarily for health problems. Food, cosmetics, and traditional and religious beliefs follow health problems. The herbalists also state that the herbs they sell for medicinal purposes are mostly for digestive system, respiratory system, and nervous system disorders, followed by cardiovascular disorders, infertility, dermatological disorders, and cancer, respectively. In their study on the herbalists in the Eastern Black Sea Region, Toksoy et al. (2010) report that the medicinal and aromatic products are mostly used for intestinal and urinary tract disorders and as a carminative. Similarly, Akbulut and Bayramoglu (2013) report that digestive system, respiratory system, and dermatological disorders are the highest ranking causes for purchasing herbs. It is reported that the herbs sold in herb shops are mostly taxa belonging to the Lamiaceae family and that this is consistent with other studies conducted in Turkey (Akbulut and Bayramoğlu, 2013; Sargın et al., 2014; Toksoy et al., 2010). It was determined that the medicinal herbs sold were mostly used as liquid solutions and are prepared as infusions or decoctions. Similar studies have reported similar results (Polat et al., 2011; Tulukcu and Sağdıç, 2011; Sargın et al., 2014).

The herbalists stated that their shops were inspected once or twice monthly by the Provincial Health Directorate, Provincial Food Agriculture and Livestock Directorate, the Revenue Office, and Municipalities. The herbalists stated that there were increases in the number of customers, in the quality and standardization of the products, in the costs and prices of the products, and the number of inspections by official institutions in the last five years in the medicinal and aromatic products market, but there was no change in the type of products demanded and the way these products are supplied. Sixty percent of the herbalists state that the highest selling months are in the summer, and 40% state that it is in the fall and winter months. On the other hand, Akbulut and Bayramoglu (2013) and Sargın et al. (2014) report that the highest selling months are in the winter. It can be said that this difference originates from the traditions in the Kahramanmaraş region and

from winter preparations beginning in the summer and fall months.

The ages of the 99 customers participating in the questionnaire ranged between 18 and 70 years, the average age being 39 years. 32 of the participants were male and 67 were female. The demographic characteristics of the customers are presented in Table 4. The education periods of the customers ranged between 5 and 15 years, and the average education period being 10 years. Nineteen of the customers did not want to provide information concerning their income levels, and the income distribution of the remaining 80 is presented in Table 4.

Table 4. Demographics features of customers

Features	Number of customers	Percentage (%)
Age groups		
18-28	20	20,2
29-39	28	28,3
40-50	37	37,4
>50	14	14,1
Gender		
Male	32	32,3
Female	67	67,7
Educational status		
Primary education	34	34,3
High school	40	40,4
University	25	25,3
Occupational group		
Housewife	43	43,4
Retired	16	16,2
Student	11	11,1
Officer	19	19,2
Other	6	6,1
Monthly earning		
<500	13	16,3
501-1000	19	23,8
1001-1500	21	26,3
>1500	27	33,8

The medicinal and aromatic products most frequently bought or used by the customers are mint, thyme, and linden. This is consistent with the most frequently sold herbs list, as

stated by the herbalists. The herbs most frequently used as stated by the customers are presented in Table 5.

Tablo 5. Most purchase plants by customers

Botanical name	Family	English name	Turkish name	Part used
<i>Mentha x piperita</i>	Lamiaceae	Mint	Nane	Leaf
<i>Thymbra spicata</i>	Lamiaceae	Thyme	Zahter (Kekik)	Leaf
<i>Tilia tomentosa</i>	Malvaceae	Linden	Ihlamur	Flower
<i>Salvia absconditiflora</i> ^e	Lamiaceae	Sage	Adaçayı	Leaf, flower
<i>Rosa canina</i>	Rosaceae	Rose hip	Kuşburnu	Fruit
<i>Laurus nobilis</i>	Lauraceae	Laurel	Defne	Leaf
<i>Foeniculum vulgare</i>	Apiaceae	Fennel	Rezene	Leaf
<i>Cassia fistula</i> [*]	Fabaceae	Senna	Sinameki	Flower
<i>Zingiber officinale</i> [*]	Zingiberaceae	Ginger	Zencefil	Rhizom
<i>Orchis spp.</i>	Orchidaceae	Sahlep	Salep	Tuber
<i>Ceratonia siliqua</i>	Fabaceae	Carob	Keçiboynuzu	Fruit
<i>Glycyrrhiza glabra</i>	Fabaceae	Liquorice	Meyan	Root

*Exotic species, ^eEndemic species

Although the ranking is different, the herbs sold by the herbalists and the herbs bought by the customers as stated by these customers correspond with each other, except for sahlep and licorice, which are included in the customers' list but not in the herbalists' most frequently sold herbs list. These herbs are commonly used by the people of the region for food and health purposes, but can be provided by suppliers other than herb shops such as bakeries, dried nut shops, and peddlers, or by collecting them directly from nature. In addition, sahlep is in the bulb group that is banned for export by collecting from nature (Resmi Gazete, 2016). The syrup from the licorice is prepared in the region and is sold on the streets and in some shops. Thus, these two herbs are not in the herbalists' list.

The customers stated that they prefer to buy herbs for food (48.5%), respiratory

system disorders (17.2%), digestive system disorders (11.1%), cardiovascular disorders (5.1%), dermatological disorders (5.1%), nervous system disorders (4%), and other health problems (9%) from the herb shops. The customers buy these herbs in the summer and fall months for preparation for the winter. The purposes of use and the buying times stated in the customer questionnaire and the herbalist questionnaire are similar.

Although the herbalists see themselves as healer firms and state that their selling is for medicinal purposes, the customers see the herb shops as a food firm. The fact that 43.4% of the customers of the herb shops are housewives makes this meaningful.

The customers were asked what they would prefer to do in case of a health problem; the responses are presented in Table 6.

Table 6. The first preferences of customers in case of a health problem

The first preference in case of a health problem	Number of persons	Percentage (%)
Hospital only	24	24.2
First the hospital then the herbalist	61	61.2
First the herbalist then the hospital	8	8.1
Herbalist only	6	6.1

As seen from Table 6, 61.2% of the participants prefer to go to hospital first, then to herbalist. The reasons why they prefer the hospital firstly are that everyone falls under the coverage of Social Insurance in Turkey, and they desire to be examined in detail by a specialist physician. However, individuals have preferred herbalists in recent years, since medicines have many side effects, some medicines are outside the scope of Social Insurance, and they prefer a natural treatment or to support existing medicines.

Because the medicinal and aromatic herbs have an important market share, the profession of herbalists is enhanced and the desire to use herbs is increasing. However, there is no clear standardization for selling and using medicinal and aromatic herbs. In particular, in some families, there are genera that are similar but have different active agent content, even having poisonous effects. Many genera of the Asteraceae family are sold as medicinal daisies (*Matricaria chamomilla*) since the flowers are similar. *Anthemis* spp. and species such as *Chrysanthemum coronarium*, *Helichrysum stoechas*, and *Bellis perennis* of the same family may be given as examples (Gürdal and Kültür, 2013; Toksoy et al., 2010; Uysal et al., 2010; Everest and Ozturk, 2005). The current study indicated that *Cota altissima* is being sold in the herb shops as “daisy.”

Although some herbs are being cultivated, many herbs are still being collected from nature to be traded. Among these herbs, there may be endemic herbs such as *Salvia absconditiflora*, which was included in the present study. Unconscious collection of herbs from the nature threatens their sustainability and reproduction.

It must be ensured that the sellers raise awareness in the selling of medicinal and aromatic herbs, and for buyers using them. As a priority, the profession of the herbalists must go beyond the master-apprentice relationship, and the grounds for conducting this profession by experts who have been educated on this subject must be prepared.

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