An Analysis About Their History: Turkish Pharmaceutical Company Websites

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Introduction

Historical Background of Turkish Pharmaceutical Industry

Ottoman Empire Period

The first private community pharmacy was established in İstanbul in 1757 known as "Pharmacy with Two Doors". Pharmacist Corci Tülbentçiyan took over the management of this pharmacy in 1891. The roots of Turkish Pharmaceutical Industry were formed in late period of the Ottoman Empire in the laboratory part of community pharmacies at first. Though the first community pharmacists were from various nationalities, in the late 1800s Turks began operating their own pharmacies. Pharmacist Halil Hamdi Bey was the first Turkish pharmacist who opened his own private pharmacy at Zeyrek district in İstanbul in 1880. Hamdi Bey prepared ready-made drugs such as Kola Hamdi, Elixir Digestive Hamdi, Kéfir, Liqueur de Goudron, Dermophile and Sirop iodantannique in his pharmacy too. Another famous Turkish Pharmacist was Ethem Pertev who had his own pharmacy in 1895 at Aksaray district in İstanbul as well. Also he had prepared first medical ready-made drugs in the laboratory part of his pharmacy. For instance Pertev Syrup was the first Turkish

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ready-made drugs displayed and won the medal in the Paris Exhibition in Europe. First fabricated drugs were simple preparations like syrup, potion, various powders and soap^{1,2}. In 1890 there were 265 pharmacies in İstanbul and of these only 4 belonged to Turks³.

Meşrutiyet Period

First steps were taken by Wieting Pacha who was the director of Gülhane Military Hospital. In his leadership tablets were made such as Aspirin, Quinine, Dover in comprime machines which were imported from Germany. This situation is enhanced by the activities of Ethem Pertev and during 1st World War and Independence War almost all of the needs of army and Kızılay were met. Comprime production is followed by caches those were made in small scaled pharmacies².

On the other hand Abdi İbrahim who had been a community pharmacist till 1908, began producing Bromovalerin Nadir and Abdi Nadir Müshil Sugar in 1915 in a small laboratory which was located in his pharmacy. Besides Süleyman Ferid Bey who were the head pharmacist of Memleket Hospital and owner of his own community pharmacy at the same time began preparing simple ready-made drugs like child powder and Katran Ferit in İzmir in 1907. Furthermore İbrahim Ethem Bey produced glass ampoules during 1st World War. In the period starting from Meşrutiyet until Cumhuriyet the total number of Turkish ready-made drugs were only 20-30².

Cumhuriyet Period

The establishment and development of Turkish Pharmaceutical Industry was possible only after Cumhuriyet. In the first years of Cumhuriyet there were 30 small sized ready-made drug producers which were mainly located in İstanbul. These producers were making and launching 140 preparations every year. During the period of 1928-1949 total number of ready-made drugs were approximately 1500. In 1949, 1500 medicines made in Turkey were produced by 295 drug firms. These firms were simple laboratories placed in a floor of a building or sometimes built in two or more rooms of a flat^{2,4}.

First Turkish Drug Factory was Eczacıbaşı established in Levent, İstanbul. Pharmaceutical Industry in Turkiye displayed rapid progress especially after 1950s. An enormous liveliness is observed in this area by "Incentive of Foreign Capital Act" starting from 1954. For instance İbrahim Ethem Drug Factory is the consequence of this cooperation. This factory is established at Topkapı in 1956. In 1970, around 3000 readymade drugs consumed in the country were also locally produced².

Pharmaceutical Industry Today

Turkey is among the one known as seven developing countries in terms of pharmaceutical sector with China, India, Russia, Brasil, Mexico and South Korea. In Turkish pharmaceutical sector, approximately 300 firms are operating. Of these 53 have a production facility. However 14 of the 42 foreign capitalised firms produce the drugs in their own production facilities.

Pharmaceutical industry, renovated it's production technology in 1984 by approving and applying Good Manufacturing Practices (GMP). After 1994, technologic level of the drug industry became as same as EU and developed countries. Today only some serums and vaccines high-tech medicines, blood products and biotechnology drugs are imported for the country^{5,6}.

Pharmaceutical production facilities are controlled by the Ministry of Health periodically. However the ones which are exporting their products are controlled by international authorities as well. As a result of the several factors such as the convenience of the infrastructure, availability of materials and technical personell, transportation and communication facilities, condensing of health institutions in Marmara Region, huge amount of the industry is concentrated in İstanbul, around İstanbul, Marmara and Trakya Regions⁵.

Leader firms in Turkish Pharmaceutical market is as follows: Abdi İbrahim, Novartis, Sanofi Aventis, Bilim, Pfizer, GlaxoSmithKline, Roche, Bayer, AstraZeneca, Sanovel⁶.

Organizational Structuring of Pharmaceutical Industry

There are 3 nongovernmental organizations which have member firms from pharmaceutical industry. These organizations are İEİS (Pharmaceutical Manufacturers Association of Turkey), AİFD (Association of Research Based Pharmaceutical Companies) and TİSD (Turkish Pharmaceutical Manufacturers Association)⁷⁻⁹.

A Brief Information About İEİS

İEİS is the representative body of the Turkish generic pharmaceutical industry. It was founded in 1964 in İstanbul with the purpose of sustaining the development of the local pharmaceutical industry. It plays an important role in healthcare policy making and promotes the use of generic medicines. It currently has 44 member companies. İEİS also has a liaison office in Ankara. Main functions of this organization is listed below⁷.

- To protect the international standards of the industry by monitoring the scientific, legal and technical developments at European and international level.
- To complete the harmonization of the Turkish pharmaceutical industry to European Union (EU).
- To play an important role in health care policy-making and to promote and support the improvement of generic pharmaceutical industry.
- To designate and solve economic and social problems common to member firms, to represent members before the authorities and present the joint views concerning these problems.
- To join and maintain active membership in international organizations in the pharmaceutical field, to participate in the activities of these organizations and inform member firms of current international regulations and decisions.
- To represent member firms during negotiations with the labour unions and to sign necessary protocols on behalf of these firms.
- To conduct researches on legal, economic and financial subjects concerning the pharmaceutical industry and to offer pertinent advice.
- To publish books, brochures and periodicals to inform the public on the pharmaceutical industry and its activities.
- To organize seminars, conferences and courses to keep members informed of developments in the pharmaceutical field.
- To help member firms to maintain high ethical standards in their promotional activities with the consciousness of the property of pharmaceuticals being a "social product", to undertake a mediating and coordinating mission for the purposes of initiating social responsibility in all activities^{7,10}.

When the managerial structure is considered it can be seen that İEİS covers of 4 main bodies; board, auditing board, board of discipline, and general secretariat. In the executive board the following firms are active: Abdi İbrahim Pharmaceutical Industry, Adeka Pharmaceutical Industry, Mecofarm Cosmetics and Drug Promotion, Liba Laboratories, Eczacıbaşı Pharmaceutical Marketing, Bilim Pharmaceutical Industry, Sandoz Pharmaceutical Industry, Actavis Pharmaceutical Industry⁷.

Materials and Method

In this study web sites of the local (national) pharmaceutical firms were analysed in a limited time period that started from 1st December 2010 and ended in 28th February 2011. All the pharmaceutical firms' web sites were accessed either from the official web address of İEİS (www. ieis.org.tr) or from "Google" search engine. Both "Explorer" and "Mozilla Firefox" internet browsers were used during the data collection period. In short this study was a cross-sectional type.

Data Collection

During the data collection period which lasted approximately three months (1.12.2010-28.2.2011) a check list was used for gathering information from the web sites of the pharmaceutical companies about the given topics below:

- 1. Existence of the year when the pharmaceutical firm first founded
- 2. Finding out under which topic the history of the firm can be seen
- 3. Availability of a historical picture of the firm
- 4. Availability of the identity of the firm founder
- 5. Exploring whether the profession of the founder of the firm is obvious

In the end of data collection, some conclusions were drawn whether the web sites of the pharmaceutical firms were satisfactory in terms of providing historical background about themselves.

Results and Discussion

The number of accessible web sites were 32. Of the 39 member firms of İEİS, 6 had no web site. On the other hand one of them was under construction throughout the research process. Because of being under construction this web site was excluded from the study. Finally 32 pharmaceutical companies' web sites were analysed. These web addresses can be seen in the Appendix. Five web sites were reached by "Google" search engine while the rest were accessed via the official web site of İEİS (www.ieis.org.tr).

Foundation year of the pharmaceutical companies are shown in Table I. In other words; of the 32 analysed web sites, 28 had a clear indication of their foundation year. Whereas 4 of the pharmaceutical companies had no information regarding neither their historical background nor their year of foundation.

It is clearly observed from Table I that the majority of the pharmaceutical companies are founded after 1970. And in the last two decades there is an obvious increase in terms of newly founded companies. Table II can be thought as an attachment for Table I which demonstrates clearly how old the pharmaceutical firms are.

It can be clearly seen from Table II that more than half of the firms are either more than 50 years and/or younger than 10 years. In this context, the oldest Turkish Pharmaceutical company is "Abdi İbrahim" whose age is 92. Whereas the youngest companies are "Abdica" and "Cenovapharma". The age of the both companies are only 1. Besides on 5 (17.9%) of the web sites there was an information about the progress of the pharmaceutical company under the subtitle "milestones".

The data given in Table III is about the location of the information on history of the pharmaceutical companies. In other words; the section which provides the historical background of the company on the company's web site is shown.

It is observed that pharmaceutical companies mostly prefer to give info about their historical background under the "About us" title on their web site. On the other hand some prefer to provide this info under "History" or "Our history" sections. Especially "Our history" seems to sound more sincere and more possessive. However "About us", "Institutional" and "Who are we" titles evokes something different not directly related to the history of an organization.

TABLE I
Year of Foundation of Pharmaceutical Companies

| Year | Number (n) | Percentage (%) |
|-----------|------------|----------------|
| ≤1920 | 1 | 3.6 |
| 1921-1930 | 2 | 7.1 |
| 1931-1940 | 1 | 3.6 |
| 1941-1950 | 3 | 10.7 |
| 1951-1960 | 3 | 10.7 |
| 1961-1970 | 2 | 7.14 |
| 1971-1980 | 2 | 7.14 |
| 1981-1990 | 3 | 10.7 |
| 1991-2000 | 5 | 17.9 |
| >2000 | 6 | 21.5 |
| Total | 28 | 100.0 |

TABLE II
The Age of Pharmaceutical Companies

| Company's Age (Year) | Number (n) | Percentage (%) |
|----------------------|------------|----------------|
| ≤10 | 7 | 25 |
| 11-20 | 4 | 14.3 |
| 21-30 | 3 | 10.7 |
| 31-40 | 2 | 7.1 |
| 41-50 | 2 | 7.1 |
| >50 | 10 | 35.8 |
| Total | 28 | 100.0 |

| Historical background is placed under | Number (n) | Percentage (%) |
|---------------------------------------|------------|----------------|
| "About us" | 15 | 53.6 |
| "History" | 7 | 25.0 |
| "Institutional" | 3 | 10.7 |
| "Our history" | 2 | 7.1 |
| "Who are we" | 1 | 3.6 |
| Total | 28 | 100.0 |

 $\begin{tabular}{ll} TABLE\ III \\ The\ Location\ of\ the\ Info\ on\ History\ of\ the\ Company\ on\ its\ Web\ Site} \end{tabular}$

On the other hand it is thought that while providing info about history it is also important to support the given information with the photographs/pictures which belong to the first years of the pharmaceutical company or the pictures of it's founder(s). Thus in Table IV the data concerning this issue is provided.

Unfortunately more than half of the companies did not provide any photograph or a picture which belongs to the first years of the company (i.e. the factory building, a scene of production in the factory, the founder's picture, etc.). On the other hand some companies provide black and white photographs which are really sheding light on their history.

Another important subject about a pharmaceutical company is the identity of it's founder(s). In other words, on the company's web site there should be a precise information about the founder(s) of the pharmaceutical company. Otherwise the historical information will be lacking. Thus in Table V the data about this issue is provided in below.

It is obviously understood from Table V that on half of the pharmaceutical company web site we can see and read who established the company. But on the other hand for the rest this information is missing. Maybe this is because in recent years there is not a specific person who establishes a pharmaceutical company. This procedure is made by joint ventures most probably. This can be one reason why a specific name is not mentioned as the founder of the company. Even though this is the real situation this should be mentioned also on the web site.

TABLE IV

Availability of a Historical Photograph Related to the Company

| Availability of a Photograph | Number (n) | Percentage (%) | |
|------------------------------|------------|----------------|--|
| Available | 14 | 46.7 | |
| Not available (N/A) | 16 | 53.3 | |
| Total | 30 | 100.0 | |

 $\label{eq:table_variance} TABLE\ V$ Existence of the Identity of the Founder on the Company's Web Site

| Is it clear who found the company? | Number (n) | Percentage (%) |
|------------------------------------|------------|----------------|
| "Yes" | 15 | 50 |
| "No" | 15 | 50 |
| Total | 30 | 100.0 |

Another finding was about the professions of the founders of the pharmaceutical company. It is observed that of the 15 pharmaceutical company (whose founders were clear) 8 founded by pharmacists. Of these one was a pharmacist-pharmacist joint venture, one was a pharmacist-economist joint venture, one was a pharmacist-medical doctor joint venture. The latter two were couples at the same time (being wifes as pharmacists). One pharmaceutical company was founded by a chemist who is Nejat Eczacibaşı. Two were formed by medical doctors without any joint venture. One company (Yeni ilaç) was established by a pharmacist-medical doctor joint venture but without any relative or family relations.

Also from 3 web sites it can be clearly seen that the beginning of the pharmaceutical company was a community pharmacy at first. On these web sites the black-white and/or colored photos of the pharmacies can be seen also. Similar to the ones in our country we know from Stuart Anderson that in Germany and in Great Britian the roots of some well known pharmaceutical companies go back to retail pharmacies as well¹².

In order to make a small comparison two pharmaceutical company web sites from abroad were visited as well^{13,14}. Of these one is a very well worldwide known and American originated. The other is a modest one

compared to the former and European originated. On the both American and European originated pharmaceutical company web sites the date and the name of their founders were mentioned. Also on the former one the progress of the company was mentioned in periods and under the subtitle "timeline". Whereas on the latter this information was under the subtitle "milestones" like the ones among İEİS member companies. Also on both web sites the historical photo of the company founder was available^{13,14}.

As a final evaluation it is certain that the web sites of İEİS member firms needs improvement in terms of historical information. Some companies are satisfactory but most of them is far from this. It is important to provide historical pictures related to the pharmaceutical companies in order to teach the roots of the profession to the young pharmacy candidates and also new starters of the company about the history of pharmaceutical industry so as to empower their organizational identity. How things changed and which developments are made (which drugs are explored, launched, etc.) during time. Furthermore when a pharmaceutical company web site is well prepared in term of history, both the information and photos can be used as teaching materials for pharmacy students by the instructors of "History of Pharmacy" lectures/courses.

Özet

Tarihçeleri Hakkında Bir Analiz: Türk İlaç Endüstrisi Şirketlerinin Web Siteleri

Türk ilaç sanayiinde bulunan firmaların eski olanlarının kökleri eczane eczacılığına kadar gitmektedir. Bu araştırmada 01.12.2010-28.02.2011 tarihleri arasında İEİS'na üye olan Türk (Ulusal) ilaç firmalarının web siteleri ziyaret edilerek, daha önceden oluşturulan bir kontrol çizelgesi ışığında, web sitelerinde "Tarihçe" kısmının nerede yer aldığı, bunun yanısıra ilaç şirketinin ilk kuruluş tarihinin bulunup bulunmadığı, şirketin tarihini yansıtan bir fotoğrafın olup olmadığı, şirketin kurucusunun kimliğinin açıkça belirtilip belirtilmediği, şirket kurucusunun mesleğinin yer alıp almadığı gibi bilgiler araştırılmıştır. Veri toplama sürecinin sonucunda, bazı sonuçlar çıkarılmıştır.

Anahtar Kelimeler: Tarih(çe), İEİS, İlaç Firması, İlaç Şirketi, Web Sitesi, Türkiye.

Summary

The old Turkish Pharmacetical firms' roots go back to retail pharmacies. In this study the web sites of member Turkish (national) pharmaceutical firms of İEİS were visited during the time period; 01.12.2010-28.02.2011. Then under the light of a check list which was prepared beforehand the following information is searched on the web sites: Where the "History" of the company is placed, existence of the year when the pharmaceutical company first founded, availability of a historical picture of the company, availability of the identity of the company founder, whether the profession of the founder of the company is obvious. In the end of the data collection process, some conclusions were drawn.

Key Words: History, IEIS, Pharmaceutical Firm, Pharmaceutical Company, Web Site, Turkiye.

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- 12. Anderson S., Making Medicines: A brief history of pharmacy and pharmaceuticals, Pharmaceutical Press, London, 2005.
- 13. http://www.pfizer.com/about/history/history.jsp (access: 13 March 2011)
- 14. http://www.lundbeck.com/aboutus/history/milestones/default.asp (access: 13 March 2011)

APPENDIX

The List of Accessed and Analysed Pharmaceutical Company Web Sites

- 1. www. abdica.com.tr
- 2. www.abdiibrahim.com.tr
- 3. www.actavis.com.tr
- 4. www.aliraif.com.tr
- 5. www.aroma-polifarma.com
- 6. www.avicennafarma.com
- 7. www.berko.com.tr
- 8. www.bilimilac.com.tr
- 9. www.biomeks.com
- 10. www.biemilac.com
- 11. www.cenovapharma.com
- 12. www.centurion.com.tr
- 13. www.frik.com.tr
- 14. www.drogsan.com
- 15. www.monrol.com.tr
- 16. www.eip.com.tr
- 17. www.gripin.com
- 18. www.farma-tek.com
- 19. www.kansuk.com
- 20.www.keymen.com.tr
- 21.www.kurtsanilaclari.com
- 22.www.liba.com.tr
- 23.www.nycomed.com.tr
- 24.www.opakim.com.tr

- 25.www.pensapharma.com.tr
- 26.www.rasyonelilac.com.tr
- 27.www.sandoz.com.tr
- 28.www.sayilac.com
- 29.www.nobel.com.tr
- 30.www.vemilac.com
- 31.www.yeniilac.com
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