



Management in chemical - wine industries

Nikolaos Zikos

Lecturer Chemistry Department University of Athens, Chemist Zanneio Model Junior High School

Date of Submission: 12-03-2021

Date of Acceptance: 27-03-2021

ABSTRACT: In this article, a reference is initially made to the workplaces of graduates of chemical departments and their access to chemical industry in Greece. Then a small reference to Greek wine industry follows. After that a report shows the connection between science of chemistry and management. The main aim is to spot the management knowledge that are required by chemists / oenologists who are employed in chemical / wine industries.

KEYWORDS: chemistry, oenology, management, wine industry

I. INTRODUCTION

According to statistics (Association of Greek Chemists / Hellenic Statistical Authority), the main areas of employment of graduates of chemical departments are industry (with the main sectors of these cosmetics - medicines and food), education (secondary private and public, tertiary, colleges), ministries (mainly Minister of Finance), research centers, institutions, private laboratories, various organizations (mainly General Chemical State Laboratory) and finally hospital institutions. More specifically 23% of chemicals are employed in education, followed by industry with 19%. So, we reach the conclusion that one in five chemists is employed in industry. [1], [2]

II. MANAGEMENT - MANAGER

The term management refers to the process of planning, organizing, leading, and controlling exercised in a business, to effectively achieve the goals and schedules, that have been set. [7] Manager is the person who has the responsibility and the right to effectively utilize the resources of a company by exercising in the best way the functions of management. The main purpose of a manager is to exercise management of any kind. [8] Effective management has as a direct result the best possible utilization of the factors of production - natural and human resources (staff, raw materials,

Also, in Greek chemical industry are active about 1,000 companies (regardless of size and dynamic) constitute an important part of the domestic industry. The activities of chemical industry contribute significantly to Gross National Product (GDP). In addition, the contribution to the labor market in Greece is important and we refer to part of production and promotion of chemicals products.

Besides that, in Greece there is tradition in wine making. Ancient Greeks processed wine using methods like modern ones. Characteristic of the importance of wine production and variety in Ancient Greece was the adoption of wine-related laws in various cities, such as Thasos, which protected local production and set limits on competition and imports. [3], [4]

According to statistics in Greece more than 1300 wine industries are active nowadays. Most of them cooperate with chemists – oenologists who are employed in order to do wine analysis. [5]

Of course, due to the global economic crisis, since 2008, employment in the domestic chemical and wine industry decreased following international trends. Of course, we must emphasize that at the international level, the entry of new emerging countries in this field has changed the existing framework, reducing the competitiveness of the European and of course Greek wine industry. [6]

machinery, buildings, capital) to produce products and achieve the goals. The nature of the business and the range of activities carried out determine the respective specific roles of management.

Managers usually have studies in management (MBA / Master of Business Administration) having through them acquired a broad knowledge of operations management and skills targeted in their field, such as market knowledge, finance, operations, strategy, corporate policy, communications, statistics, accounting. The purpose of these studies is to become efficient and capable



executives of companies and organizations, so that they can evaluate and analyze external or internal data in any business environment to implement the appropriate decisions. [9]

III. RESPONSIBILITIES OF MANAGER

Managers evaluate performance of their employees - subordinates, who report to them and determine the appropriate actions to address problems caused in the workplace. They need to be able to communicate clearly and directly with their subordinates so high communication skills are required, necessary for channeling information. The skills of creating competent workgroups work for the benefit of the team itself.

Also, part of their activities is collection of data and preparation of measurements on productivity, expenditure and progress towards achieving the objectives for projects they supervise. They

The above studies can be achieved at undergraduate or postgraduate level. Graduates of almost all departments of university departments can pursue postgraduate studies in this field, but many of them come from the economic and positive direction. [10]

construct and study graphs, tables, and reports using information they collect, visit production sites, and monitor daily laboratory operations. [8]

Much of a manager's time is spent in meetings or teleconferencing, writing reports, attending lab work, and staffing issues. Managers also have the task of informing employees about new methods in production areas, helping them find solutions to unusual work problems or discussing career development and performance issues. In a chemical or a wine industry they can work in a laboratory, in an office or in a combination of these two spaces (hybrid model).

IV. CHEMISTS – OENOLOGISTS WITH MANagements KNOWLEDGES

Chemists / oenologists with a well-established career in industry are more likely to have difficulty in pursuing a career in management. The administration space is dominated by people who can bring staff together. If manager is a chemist or an oenologist, it is very important to have prospect of integrating the science of chemistry or oenology with other disciplines and be able to supplement his business knowledge. The manager is a mentor, a good listener and at the same time a representative of all the staff.

At this point we must mention that the percentage of chemicals that immediately after their studies follow studies in business administration - management at postgraduate level is relatively small and among oenologists even smaller. Of course, during their professional career, many of them follow this course for greater development prospects. The best career path is to dominate one's field and then broaden one's perspective by integrating knowledge from other fields such as taking on leadership roles.

There is therefore a critical point in all professional areas where employees must choose a career in their specialty or a career in management. In case they follow the second option, there is a big change in their field of work. More specifically, instead of

focusing on research on specific material or process, they now deal with larger programs - projects and in parallel with guidance of their subordinates.

Prerequisite for moving from laboratory or production area to an administrative position is experience for a period of about five years in an applicable area (chemistry, oenology, biochemistry, materials science, etc.). The extraordinary ability that someone (usually the laboratory manager) has demonstrated in managing chemistry / oenology projects is a springboard for greater responsibility. Finally, it should be noted that some companies provide on-the-job training or subsidize the cost of training executives in management positions.

It is worth mentioning that according to statistics provided by American Chemical Society, the number of managers with a basic degree in natural sciences (including chemistry and oenology) will increase between 2012 and 2022, by 6%. This percentage is lower than the average of 14% that will be observed in employment sector in general, but more than the projected 4% increase expected in chemistry / oenology jobs. [11]



V. ROLE OF MANAGER IN CHEMICAL/WINE INDUSTRIES

In the case of a chemical or a wine industry, managers are close to laboratories and production area. At global level, we must emphasize that there is a tendency to shorten the research and development cycle while increasing production. The prevailing slogan is to carry out "more with less" event as it puts pressure on managers. The possession of chemistry or oenology knowledge at the undergraduate level by themselves allows them to better manage these spaces (laboratory - production) in the effort to achieve the goals they have set. [12]

In the field of industry there is always an increased demand for personnel who can take a leading role in either research or management. A chemist or an oenologist can undertake a chemistry / oenology project, but supervising a larger project requires more specialized knowledge. Managers must have the ability to control all the scientific aspects of a project, but at the same time focus on motivating team members, planning, organizing, managing, and allocating the necessary resources to achieve a specific target.

As today's projects have become more complex and at the same time interdisciplinary, the role of the manager has become even more important, to balance all the competitive constraints and to achieve the final goal of the project always keeping financial and time constraints. By coordinating the projects and their existing ones, it plays a key role in the financial success of the company.

Summarizing managers with a basic degree in chemistry or oenology can work in a wide range of workplaces. There is a balance between technical - scientific and business knowledge. Their field of activity includes promotion of research activities, coordination of production, quality control but also supervision of a business team. In large companies, managers deal with coordination of projects, supervision of technical staff and execution of administrative tasks, while in smaller companies they divide their time between technical and administrative work.

VI. CONCLUSIONS

In general, in curricula of Universities (especially chemistry and oenology departments) we observe changes in their structure and the concept of a distinct categorization of sciences is now absent. An important parameter in this direction is the integration in the curricula in

undergraduate level courses in the field of finance, marketing, and management. (www.chem.uoa.gr) Possession of basic knowledge in these respective scientific fields works as a springboard in case one wishes in the future to deal in more detail and to deepen. Of course, at postgraduate level and mainly in those related to chemical or wine industry, there are corresponding courses with more specialized knowledge adapted to the direction of the postgraduate program. [13]

REFERENCES

- [1]. <https://www.eex.gr/news/anakoinwseis/1920-stoixeia-epagelmatikis-apasxolisis-ximikon> Evidence of Professional Employment of Chemists Hellenic Chemists Association, Retrieved 11-12-2020.
- [2]. <https://www.aade.gr/gcsl> General Chemical State Laboratory, Retrieved 20-2-2021.
- [3]. Kontova, D. (2011). The marketing of wines in Northern Greece, unpublished graduate thesis, Kavala Technical University, Department of Business Administration, Kavala. Retrieved 12-5-2017 at <http://digilib.teiemt.gr/jspui/bitstream/123456789/3146/1/0204%CE%9601%CE%960692.pdf>.
- [4]. Flaceliere, R. (2007). The public and private life of the ancient Greeks, Gerasimos Vandoros. Athens: Papadimas.
- [5]. <http://panepo.gr/portal/> Association of Oenologists, Retrieved 20-3-2021.
- [6]. Chemical Industry in Greece. Contribution to Economy and Growth Prospects. (2015). Institute for Economic and Industrial Research.
- [7]. <https://www.eap.gr> Hellenic Open University Master's in business administration (MBA) (year of admission from 2018-2019), Retrieved 3-3-2021.
- [8]. Vaxevanidou, M. & Rekleitis, P. (2011). Principles of Business Organization & Management, 2nd Cycle - Student Book. Institute of Computer Technology and Publishing - Diofantos.
- [9]. <https://www.acs.org/content/acs/en/careers/college-to-career/chemistry-careers/project-management.html> American Chemical Society - Project Management, Retrieved 20-3-2021.
- [10]. http://www.chem.uoa.gr/?page_id=297&lang=en Undergraduate Program Chemistry Department, NKUA, Retrieved 15-1-2021.
- [11]. <https://www.acs.org/content/acs/en/careers/college-to-career/chemistry->



- careers/industrial-management.html
American Chemical Society - Industrial
Management, Retrieved 20-3-2021.
- [12]. <http://haci.gr/> Association of Greek
Chemical Industries, Retrieved 20-2-2021.
- [13]. [http://viticulture-
oenology.chem.uoa.gr/ma8imata/periexome
no-perigrafi-ma8hmatwn.html](http://viticulture-oenology.chem.uoa.gr/ma8imata/periexomeno-perigrafi-ma8hmatwn.html) MSc in
Oenology, Retrieved 20-3-2021.