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Innovation, Entrepreneurship and Sustainable Value Chain in a Dynamic Environment

Edited by: Demetris Vrontis,
Yaakov Weber,
Evangelos Tsoukatos

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FOREWORD

The Annual Conference of the EuroMed Academy of Business aims to provide a unique international forum to facilitate the exchange of cutting-edge information through multidisciplinary presentations on examining and building new theory and business models for success through management innovation.

It is acknowledged that the conference has established itself as one of the major conferences of its kind in the EuroMed region, in terms of size, quality of content, and standing of attendees. Many of the papers presented contribute significantly to the business knowledge base.

The conference attracts hundreds of leading scholars from leading universities and principal executives and politicians from all over the world with the participation or intervention of Presidents, Prime Ministers, Ministers, Company CEOs, Presidents of Chambers, and other leading figures.

This year the conference attracted about 300 people from over 70 different countries. Academics, practitioners, researchers and Doctoral students throughout the world submitted original papers for conference presentation and for publication in this Book. All papers and abstracts were double blind reviewed. The result of these efforts produced empirical, conceptual and methodological papers and abstracts involving all functional areas of business.

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Many people and organizations are responsible for the successful outcome of the 7th Annual Conference of the EuroMed Academy of Business.

Special thanks go to the Conference Chair Professor Diego Begalli, the Conference Organising Committee and the University of Verona, in Italy, for accomplishing an excellent job.

It is acknowledged that a successful conference could not be possible without the special co-operation and care of the Track Chairs and Reviewers for reviewing the many papers that were submitted to this conference. Special thanks to the Session Chairs and Paper Discussants for taking the extra time to make this conference a real success.

The last but not the least important acknowledgment goes to all those who submitted and presented their work at the conference. Their valuable research has highly contributed to the continuous success of the conference.

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BOOK OF CONFERENCE PROCEEDINGS

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DISCOVER POTENTIAL SEGMENTS OF WINE SHOPS BASING ON SALES STRATEGIES BY CLUSTER ANALYSIS

Chironi, Stefania; Bacarella, Simona; Altamore, Luca; Ingrassia, Marzia

Dept. of Agricultural and Forest Sciences, Università degli Studi di Palermo, Italy

ABSTRACT

The HORECA channel is a very important for promoting high-quality wines. In fact, through this distribution channel, consumers can experience wines before purchasing, taste them also with foods and receive additional information. Market segmentation is very crucial for businesses; therefore specific criteria must be applied for a successful segmentation. In this study wine shop segmentation was carried out by explorative hierarchical Cluster Analysis in order to discover potential segments of wine shops and wine bars based on their sales strategies. Moreover, wine shop(s) role in dissemination of information about quality wines was investigated. A census was carried out in a selected Italian city. Results show that wine shops were clearly clustered in three main groups representing different business profiles. The majority of wine shops belong to the cluster *Quality-oriented*. This result may be interesting if compared with that of other Italian cities or geographic zones. This study not only provides scientific information for consumers to distinguish different wine shops in their market of reference, but also may be useful for wineries in order to know the role of wine shops within the HORECA channel for the distribution of quality wines in different cities or geographic zones.

Keywords: *business segmentation*, *target of consumers*, *census survey*, *hierarchical cluster analysis*, *HORECA channel*

INTRODUCTION

Marketing channels are different in the wine industry by type of wine distributed and by Country of sale (Hakansson and Persson, 2004; Bariteaux et al, 2006). According to Hall and Mitchell (2008) the actors of marketing channels belong to two main categories: 1. *Marketmakers* and 2. *Matchmakers*[1]. In

[1] Marketmakers take ownership of the product in the intermediation process making their money from the 'bid-ask spread' (i.e. the difference between what they can buy it from the supplier - the bid - and what they can sell it to a retailer - the ask), matchmakers make economic gain through commissions on the transactions.

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most wine markets around the world marketmakers dominate, but in France matchmakers are more prominent. Due to high volumes dealt the *Marketmakers* category includes wholesalers, distributors, importers and exporters. These intermediaries use the HORECA trade channel (i.e. Hotel-Restaurant-Café/Catering) that includes also high-quality wine shops, restaurants, hotels and wine bars (Soressi, 2011). With regards to the wine sector, the HORECA channel is specialized in reaching consumers that like to meet at places where they can taste a wine or receive additional information about wines they want to buy (F.M.I., 2007, 2011) and often it involves journalists and critic's expert in the wine industry (Gaeta and Pomarici, 2001). The HORECA channel is an important communication vehicle for a wine with high quality characteristics (Pomarici, et al, 2012). The HORECA sector in Italy with regards to wines refers mainly to wine shops and wine bars that are also the new trendy places to drink wine outside. Today wine shops and wine bars are benchmarks for all wine lovers (Flamini, 2011), they offer a wide range of products to meet the needs of a modern wine consumer who looks for expert's advices about quality, origin (i.e. territory) combination with food and price (Mariani et al., 2011). Because of the above reasons wineries owners are aware that wine shops and wine bars within the HORECA channel are crucial to distribute high quality wines and to reach a *segment of consumers* more educated, well informed and aware of its own choices (Banks and Overton, 2010; Anderson and Nelgen, 2011). However, despite the increasing appeal of wine shops and wine bars for wine producers and consumers, the role that wine shops and wine bars play for disseminating information on quality wines has not been investigated so far through a structured approach. Looking forward this direction, wineries owners and wine producers may focus on wine shops and wine bars to enhance sales (Campbell and Guibert, 2007), especially in those cities where consumers may be more interested in educational aspects of wine and more sensitive to information about quality wines (e.g. cities located within regions or territories typically producing wines or global capitals and metros). A first step through this process of knowledge may be to assess the role that wine shop(s) and wine bar(s) plays in Italy for disseminating information on quality wines and to know if these retailers may influence consumer's taste and purchasing behavior. Secondly to assess wine shop(s) sales strategies and marketing tactics and to know potential homogeneous *profiles/segments*. Surveys can certainly be developed later to assess the role of wine shop(s) plays at a national level. According to the above premise the first hypothesis of this study (H_1) is that wine shops are aware to play an important role as intermediaries and retailers providing information about quality wines and adding value in educating consumers on wine. The second hypothesis (contrary hypothesis: H_2) is that wine shops do not have any influence on consumers or may have but they are not aware or interested about it. According to illustrious literature (Kotler and Keller, 2015) a *business segment* consists of a group of

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players/businesses who share a similar set of characteristics (e.g. needs, management, target markets, objectives, etc.). It is possible to differentiate business segments in several ways when there are no natural segments. Clustered entities are discovered when natural business segments emerge from groups of companies with shared characteristics (i.e. homogeneous) (De Luca, 2002; Kotler and Keller, 2009). Following these assumptions the objectives of this study are: (1) to discover potential *natural segments* of wine shops/wine bars homogeneous by sales strategies; (2) to assess wine shop(s) role in disseminating information about quality wines (in a *small* markets). Findings may suggest specific marketing strategies for wineries that want to sell and promote quality wines (Rouzet and Seguin, 2004).

MATERIAL AND METHODS

Study Design Reference Population and Samples Design

In this study the reference Population was the *number* of wine shops and wine bars in a selected city. The choice of the city appeared very relevant for the object of the study, so it was selected basing on some variables often used in marketing studies (Kotler and Keller, 2015) that were: 1. Size (i.e. > 400,000 residents), 2. Density (i.e. urban) and 3. Geographic zone (i.e. Italian territory with high number of wineries and high quantities of wine produced). According to official internal statistics (ISTAT 2011), wineries located in the northwestern area of the island of Sicily (southern Italy) are the largest producers of the country (more than 50% of Italian wine production), for this reason the study was conducted in Palermo, which met all the requirements (i.e. more than 400,000 residents; urban density; north-west Sicily). The list of wine shops and wine bars was obtained by intersecting the directories provided by the Italian Association of Wine Shops and the Italian Tax Authority. We selected wine shops including the following categories: wine bars, lounge bars and wine restaurants. Given the small size of the obtained Population (N = 15) a Census survey was carried out, this eliminated inferential problems of *estimates* and *test of hypothesis* (Vianelli and Ingrassia, 2000). Table 1. shows a categorization of the organizational framework of selected wine shops.

For the interviews to wine shops owners and managers (i.e. respondents) we selected a list of *variables* (Table 2) following the methods applied for marketing studies and market segmentation (Kotler and Keller, 2015) and related to attitudes toward product choice, sales strategies and consumer target (Ismea, 2008 and 2011). Moreover, a sample of 30 Italian wineries was properly selected for this study. The sample of n = 30 wineries was selected by reasoned sampling (Cicchitelli et al., 1992) from the major 2014 Italian Wine Guides where wineries were ranked on the basis of production of quality

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wines and prizes awarded: 1. Very high quality wines and from 1 to 3 prizes awarded; 2. High quality wines and from 1 to 2 prizes awarded; 3 medium quality wines and at least 1 prize awarded.

Questionnaire

For the interviews a specific questionnaire was created containing 30 statements for the variables selected and the list of wineries. Respondents were asked to rank the variables basing the ranking on the following marketing factors of the wine shop: (1) sales strategies, (2) marketing tactics and (3) target of consumers and then they were asked to rank the wineries basing on the same marketing factors. In this case wineries were considered as a variable. Rankings were on a scale from 1 (the best/first) to 30 (the worst/last).

Clustering methodology

A *Cluster Analysis* was carried out with the aim to discover natural segments (Corbetta, 1992; Fabbris, 1997) of wine shops similar (i.e. homogeneous) for *selling strategies*. The cluster analysis, according to Kaufman and Rousseeuw (1990), is the art of flush out groups of objects in a database. In science, the procedures of clusters represent a very diverse family of methods and techniques for the construction of relatively homogeneous groups within them and basically differentiated between them (Corbetta, 1999). Groups can be well formed if within them units share common traits, i.e. if they show a greater proximity with respect to the units belonging to other groups. Cluster analysis can be a useful tool to perform exploratory data analysis, to thicken multivariate objects within a simplified configuration of classes or types without losing too much information, it allows to reveal characteristics not directly measurable or evolutionary dynamics not known a priori, however at the same time it can be effectively used to confirm previous theoretical acquisitions. Even in marketing these techniques have wide popularity (Rencher, 2002). In this study, basing on demographic and geographic characteristics or buying and selling approaches it is possible to discover homogeneous segments of wine shops in respect of which wineries (wine producers) can plan sales strategies or marketing tactics actions. In clustering procedures there is not distinction between dependent and independent variables, all variables have the same status of *independent variables*. Cluster analysis compress a series of records within multivariate classes, which are unknown a priori, that reduce the complexity of the original information, however, safeguarding the substantial and systematic components (Gordon, 1999). The researcher must choose the appropriate (1) *indicators*, (2) *rules for measuring distance or similarity* between objects, (3) *procedure for grouping* statistical units and (4) *give a sense* to the groups obtained. The choice of different variables and different classification algorithms leads to intercept different cluster configurations from which evaluation of practical utility may be done only ex-post (Everitt and Dunn

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2001). As the number of variables increases the information content of the analysis increases as well. The procedures of cluster analysis can be divided into two broad general categories: (1) *hierarchical methods* and (2) methods of *repeated partition*. The *hierarchical methods* realize mergers (or divisions) of units in larger groups (or smaller group) hierarchically nested according to a classification rule or an objective function. The *repeated partition methods* divide observations in a number of non-overlapping groups and not hierarchically ranked. The hierarchical methods show high complexity of calculation (Kaufman and Rousseeuw, 1990), nevertheless for this study *Hierarchical Cluster Analysis* (HCA) appeared the most appropriate (Muller and Hamm, 2014). With *aggregative/agglomerative* procedures every object is a group in its own. At the second step the most neighbors two groups are merged into a single group. For this study we used the *aggregative procedure* because we wanted to start from a situation in which each wine shop is a cluster in itself and, step-by-step, the procedure operates subsequent fusions until the achievement of a single group including all wine shops. The sequences of fusions generated by agglomerative algorithms are displayed on a tree diagram namely the *dendrogram* and that is configured as a system of Cartesian axes with the ordinate the objects to be classified and in the degree of distance/proximity between the groups. Under the procedures of hierarchical clustering partitions are obtained by deciding a certain level of heterogeneity over which groups should be treated as entities not joinable (Everitt, 1993; Yi, et al., 2015). Agglomerative techniques result in different groupings depending on criteria used to measure the distance or similarity between two clusters, each of which may contain one or more objects (Everitt and Dunn 1999). Among the agglomerative methods known in literature, we chose the *average linkage* because it does not generate distortions of the space of distances between objects (Wajrock, et al., 2008). With this method the distance between the two groups (A and B) is obtained by averaging the distances between all pairs of objects of which the first belongs to the first group (A) and the second to the second group (B). Furthermore this method is particularly robust against outliers (Rencher 2002). The method of *average linkage* is a good compromise between the method of *single linkage* and that of the *complete linkage*, Kaufman and Rousseeuw (1990) consider the *average linkage* procedure as a robust and reliable method in most research situations. In our study normalization was not necessary because the variables have *only one ordinal scale of measure:* ranks from rank 1 (first place, the best) to rank 30 (last place, the worst). Ranks are preferred to scores because they allow comparison among datasets and are independent form subjective interpretation of scores (Wajrock, et al., 2008). The *Cluster Analysis* starts from a matrix (n x p) containing n objects measured on p variables, in our study the matrix was (15 x 60) with 15 wine shops and 60 rankings (of statements and wineries). In our study, i.e. metrics ordinal variables, we calculated indexes of distance. The distance between the points that describe the coordinates of a pair of objects can be computed using the *Euclidean Distance* that is sensitive to the scale of measurement of the

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variables. From a methodological viewpoint the chosen criteria result more appropriated to well-represent the phenomenon object of this study, with respect to discover links (i.e. similar characteristics) among each wine shop and the others. Exploratory cluster analysis was performed via the statistical program SPSS 19 with the data set of ranks given by respondents to the 30 wineries.

RESULTS AND DISCUSSION

Explanatory Hierarchical Cluster Analysis (HCA) was undertaken without standardization with Euclidean distance method and it involved a measurement of the similarity between 15 wine shops; groups with the maximum similarities were clustered preferentially. The *dendrogram* (Fig. 1) shows the hierarchy of cluster generation and agglomeration coefficients are shown in Table 4. Each cluster corresponds to one or more wine shops. Basing on clustering procedure and on analysis of respondents' answers to the 30 statements it was possible to discover 3 main Clusters or *Profiles* (i.e. segments) of wine shops (identified with fancy names): Cluster 1 - Quality Oriented; Cluster 2 - Consumer Oriented; Cluster 3 - Price Oriented. The 3-cluster solution is described in Table 3, followed by a description of the clusters' characteristics.

Cluster 1 - Quality Oriented profile

Wine shops in Cluster 1 focused on quality wines. They attach particular importance to origin of wines and wineries' characteristics. They appreciate innovative and traditional wineries with high standards of quality along the entire production process and also in later stages, that is packaging, attention to label's design, wines positioning on the market and care for environment and health of consumers. Wines preferred by this profile of wine shops are Regional, Italian and International wines of different types (i.e. red, white, sparkling and dessert wines). Managers and owners of these wine shops are open-minded about novelties, organic wines and specialties. They play a fundamental role in dissemination of information about quality wines and education of consumers about characteristics of wines and wineries. These wine shops applies *face-to-face communication strategies* and are particularly enthusiastic about promotion of high quality wines by organizing special events for 'wine lovers' like *wine tasting* or cultural events promoted by wineries. These wine shops do not care about quantities but high profit margins are achieved selling high quality wines at medium/high prices to a small segment of educated or well-informed consumers. This cluster includes six wine shops (P1-T8-N3-L15-K10-D13) and it is the largest of the three.

Cluster 2 - Consumer Oriented profile

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Wine shops in Cluster 2 sell standard wines. The quality of a wine is important to them, but they prefer to sell the types of wines requested by a consumer with scarce knowledge about wines, which plays a central role in the market. They do not care about quality brands of wines, they prefer to offer wines with good quality/price ratio for the consumer the most commercialized varieties and types (red and white wines) and they are often receptive to new products. This segment of wine shops cares about quantities, profit margins are achieved selling high quantities of wines at medium/low prices in order to satisfy a large number of consumers. These wine shops do not make use of *face-to-face communication strategies* or promotion activities. This cluster includes three wine shops (V4-E7-R14) and it joins the *Cluster 1 - Quality Oriented* profile at the fourth level of fusion of clusters, in particular with the wine shop named P1 with which there is the greatest similarity.

Cluster 3 - Price Oriented profile

Wine shops in Cluster 3 do not care about quality wines. Their sales strategies focus on low prices. They do not care about wine origin or wine brands but they select the wineries and wines basing on strategies of large profit margins at low prices. Their target of consumers is not educated about wine or informed about types and intrinsic characteristics but looks for low quality wines. These wine shops sell also local bulk/unbolted wine of different types (i.e. red, white, rose and sweet wine). Wine shops LaB6, F9 and C5 link other clusters at a high stage of agglomeration (with P1 wine shop of Cluster 1) that is considered too dissimilar to be considered as a cluster or a *segment/profile*.

CONCLUSION

The study demonstrated that wine shops and wine bars, within the HORECA channel, play an important role in delivering education and information about quality wines, so the first hypothesis was confirmed. Moreover, Cluster Analysis discovered *natural segments of wine shops homogeneous for sales strategies*, in fact the 15 wine shops of this census survey in the city of Palermo were clearly clustered in three main groups. The majority of wine shops belong to the Quality-Oriented profile which is the more prone to organize wine events that include educational aspects and to encourage newer wine drinkers to learn more about quality wine. These functions add further value to quality wines. This study not only provides scientific information for consumers to distinguish different wine shops in their market of reference, but also may be useful for wineries that want to know the role of wine shops in the HORECA Channel as intermediaries of quality wines in different cities or geographic zones. Therefore these results may be interesting if compared with those of other relevant cities. Future research may discover different wine shops segmentations in other cities and compare results.

Multidimensional Scaling may be applied in future research to represent discovered Profiles in the Cartesian plane and see graphically proximities among objects.

TABLES AND FIGURES

Types of wine shops	Activity description	Experts of wine	Products	Additional functions or services
Wine shops	1. Wine tasting; 2. Wine sale.	NONE (Only the host)	1. Bulk wine; 2. Bottles of wine.	NONE (Only sales)
Wine shops and wine bars (wine offered also with food)	1. Wine tasting; 2. Wine sale; 3. Wine sale with gourmet products.	YES 1. Sommelier.	1. Bottles of wine; 2. Glasses of wine.	YES 1. Information about wines.
Wine shops and wine restaurants	1. Wine sale with gourmet products; 2. Wine sale with food (dinner or lunch).	YES 1. Sommelier; 2. Wine master.	1. Bottles of wine; 2. Glasses of wine; 3. Wine and food.	YES 1. Information about wines; 2. Wine events with educational aspects.

Table 1. *Organizational framework of wine shops*

Variable type	Variables	Variable description
Demographic variables	*Industry*: types of wineries selected	1. Traditional 2. Innovative
	Company size: size of wineries selected and size of wine shops	3. Small 4. Medium 5. Large 6. Small 7. Medium 8. Large
	Income: wineries selected and size of wine shops	9. Regional 10. Domestic 11. Foreign countries
	Location: geographical area of wine selected	
Purchasing Approaches	*Nature of existing relationship*: Strong relationships established, Desirable companies	12. Consolidated clients 13. Open to new relationship

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	General purchase strategies: Furniture contracts	14. Consolidated wine sales representatives 15. New wine sales representatives
	Purchasing criteria: Price from wineries, type of wine, quality criteria (e.g. certifications)	16. Small price (<10€) 17. Medium price (10-25€) 18. High price (>25€) 19. Bulk wine 20. Bottled wine 21. White wine 22. Red wine 23. Rose wine 24. Sparkling wine 25. Sweet wine 26. CDO 27. CPDO 28. GIT 29. BIO 30. Other certification
Selling Approaches	*Selling criteria*: general sales strategies; Communication strategy	31. High margins 32. Low prices 33. Personal communication channel 34. Dissemination of information 35. Promotion 36. Events and experiences

Table 2. *Segmentation Variables and Indicators*

Profile/Cluster Name	Demographic characteristics	Purchasing Approaches	Selling Approaches
Cluster 1 - Quality Oriented	- Traditional and innovative industry; - Select small, medium and large wineries; - Medium and large income; - Regional, domestic and foreign countries wineries selection.	- Relationship with consolidated and new clients; - Furniture of consolidated and new wines; - Medium and high price of wine purchased; - Only bulk wine; - Only some types of wine; - All certifications.	- High margins strategies; - Face-to-face communication strategies: promotion, events, dissemination of information, etc.; - Mainly consolidated clients.

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Cluster 2 - Consumer Oriented	- Traditional and innovative industry; - Select medium and large wineries; - Small and medium income; - Regional and domestic wineries selection.	- Relationship with consolidated and new clients; - Furniture of consolidated and new wines; - Small and medium price of wine purchased; - Only bottled wine; - All types of wine; - GIT certification, some higher certification.	- High margins strategies; - Low prices; - Limited promotion activities; - Mainly not consolidated clients.
Cluster 3 - Price Oriented	- Traditional and innovative industry; - Select medium and large wineries; - Medium and large income; - Regional and domestic wineries selection.	- Relationship with consolidated clients; - Furniture of consolidated wines; - Low price of wine purchased; - Bulk and bottled wine; - All type of wine; - Some GIT certification.	- High margins strategies; - Low prices; - Mainly consolidated clients.

Table 3. *Profile characteristics*

Stages of cluster fusion	Units of clusters		Agglomeration Coefficients	Cluster generation stages		Next Stages of cluster fusion
	Cluster 1	Cluster 2		Cluster 2	Cluster 1	
1	4	7	112.000	0	0	2
2	4	14	130.000	1	0	4
3	1	8	506.000	0	0	4
4	1	4	595.333	3	2	6
5	10	13	614.000	0	0	8
6	1	3	683.400	4	0	7
7	1	15	879.167	6	0	8
8	1	10	1,036.571	7	5	11
9	11	12	1,454.000	0	0	10
10	2	11	1,673.000	0	9	11
11	1	2	2,012.444	8	10	12
12	1	6	2,326.000	11	0	13
13	1	9	4,394.308	12	0	14
14	1	5	5,054.571	13	0	0

Table 4 – *Agglomeration Programme*

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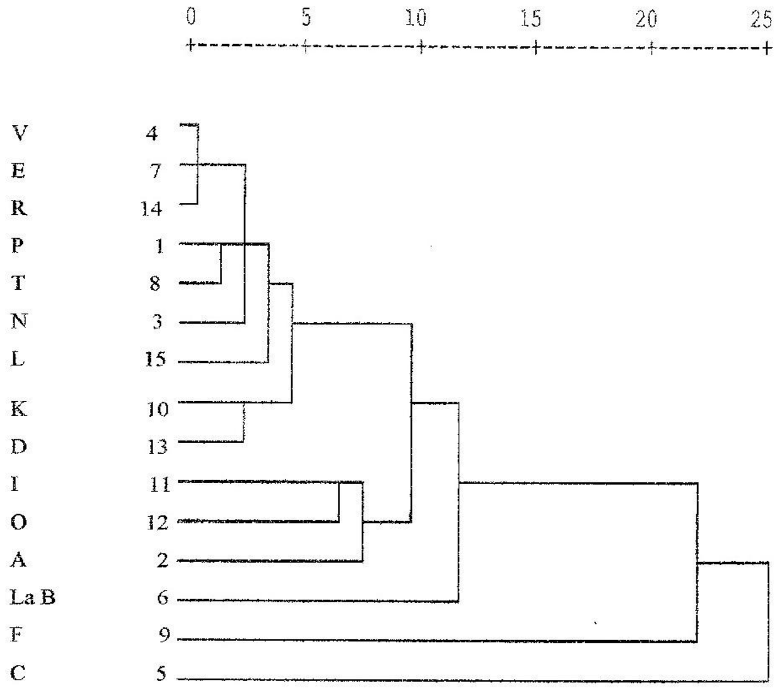

Figure 3. *Dendrogram. (Method: Average Linkage Between Groups)*

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