

Women of wine in Sicily: analysis of their role, motivation and work

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Abstract

Recent surveys on female employment show that, in Italy, the number of Women Entrepreneurs has constantly increased. This work aims to study the "Women of Wine" in Sicily, those entrepreneurs or managers who hold leadership and decision-making roles within the wineries, focusing on age, qualification, type of activity, motivations that led to undertake the task, difficulties encountered, and also on changes made by women in the firm. By calculating the coefficient of contingency we intended to measure the association between some factors of development of women-run wineries in Sicily, namely between professional characteristics of women managers deemed most important for this investigation, and some characteristics of firms. By the analysis of results we observed that the wine firms with women at managerial levels are real positive, innovative and growing business, that can open new and better development prospects for this sector.

JEL classification: women entrepreneurs, wine, Contingency Coefficient.

Keywords: C38, Q13.

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1 Introduction

The female entrepreneur is today one of the more significant realities in our country having decidedly increased during these last years, thanks also to the help of policies that favour their addition into various sectors of production, now covering about $\frac{1}{4}$ of the total of active enterprises in our country⁴.

The agricultural sector, one of the most active in this regard, counts on a strong female presence particularly in the viticultural division where the female figure seems to lend itself better for introducing innovative elements, that are today the main thrust in being competitive in this sector.

On the other hand, if we look to the past, the feminine figure has always played a role, and not a marginal one, in connection with wine; not forgetting, one example among many, the work of Madame Cliquot with champagne!

Today many women play a central role around the world of wine, ranging from production, to research and, above all, demonstrating a particular aptitude for communications and marketing, succeeding, in interpreting well, the needs and the buying habits of the modern consumer.

To support such activity in Italy various initiatives in this sector were born, and in particular, towards the end of the 80's, the Italian Women's Wine Association, with the purpose of promoting wine culture connecting women who are personally involved in all aspects of the industry, with the unique purpose of promoting wine as an expression of history, tradition and the culture of the people.

From this premise was born the idea of knowing an in depth the work of women in the wine business and in particular to study the background of "women of wine" in Sicily, focussing attention on the role they play today, their motivation, the difficulties they face, and also the innovations introduced in they firms.

Through statistical analysis of certain factors of development of the wine firms led by female managers interviewed, we measured the statistical association between the professional characteristics of the women with roles of manager or supervisor and the characteristics of their business management.

Analysis of the results, obtained from first hand interviews with the female entrepreneurs using a questionnaire prepared specifically with the aforementioned purpose in mind, has demonstrated that the female presence in the business, whether at managerial or supervisory levels, has without doubt been successful, thereby, opening up future growth for employing women within this sector.

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2 Methods and Materials

The objective of this research was that of studying the background of "women of wine" in Sicily, in other words those women entrepreneurs or managers, who cover the roles of directing and decision making within the wine firms. Using data supplied by official sources⁵, the Population selected included only the enterprises that were owned by and/or managed by women, or in which women had a high directive profile or decision making role (regardless of the possible company name that identifies them as owners by the competent Authorities⁶). Having identified the wine enterprises that satisfied our requirements, the number came to $N = 30$, for which it was deemed better not to carry out a sampling but rather a census⁷(a complete analysis of the "women of wine"⁸ actually working in Sicily in 2009).

For the interviews a questionnaire was compiled, in some cases in multi-answer format, that was submitted to the women owners and/or managers of the selected companies. The questionnaire comprised two sections, the first contained questions specifically to understand the role of women in the business, the reasons they began this work (whether family motivated them), what their business activities are, the problems they face and what innovations they have introduced. The second section of the questionnaire contained questions relating to economic and productivity data of the firms under female "guidance" (average annual invoiced turnover, volume of production, product types, sale price, target markets, etc.), in order to extract all the information necessary to carry out a complete analysis of our region.

With the data collected by the questionnaires it has been possible to do a descriptive analysis that supplied valuable information concerning the work carried out by women in the Sicilian wine firms and the innovations they carried.

Additionally, we used the data to create five matrices ($r \times m$) to calculate, for each one, the "Contingency Coefficient C "⁹ of "Pearson" for measuring the

⁵Edition: Notes of research and experimentation. Volume III. Yearbook of the Sicilian viticulture Industry, di Salvatore D'Agostino. Palermo: Istituto Regionale della Vite e del Vino (IRVV) - Regione Siciliana, 2009.

⁶Sicilian Company Houses, Italian Tax Authority - Sicilian Office, Regional Department Of Agriculture and Forestry.

⁷Because costs were limited for this research and, above all, because the census overcame possible problems of inference of value and proving the hypothesis.

⁸All enterprises selected were those where effectively the women acted as directors or managers, or had a decision making or directive role (data on the viticultural business dell' "Assessorato Regionale Agricoltura e Foreste" e dell' "Istituto Regionale della Vite e del Vino", al 31.12.2009.

⁹ $C = \sqrt{\frac{\Phi^2}{1+\Phi^2}} = \sqrt{\frac{\chi^2}{1+\chi^2}}$; where $\frac{\chi^2}{n} = \Phi^2$. The value of C is understood to be between zero and 1.

association between several factors, important for our analysis (Sectors of activity/Motivation, Media used/Sectors of activity, Media used/Innovation introduced, Innovation introduced/Sectors of activity, Issued addressed/Innovation introduced).

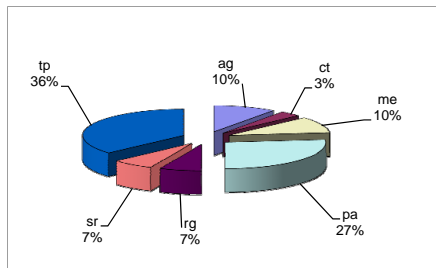
The results obtained from the application of the Contingency Coefficient allowed us to have further information about female management in Sicilian wine firms.

3 Analysis of the results

3.1 The operational basis

Our journey into the world of women who work in the wine sector examines, as already stated, thirty cases sharing one common factor being the female presence at operational level. However, before revealing the characteristics of this female universe, we need to know and understand clearly the actual conditions in which our protagonists operate. The cases highlighted are located in 7 of the 9 Sicilian provinces, with particular concentration on those in Trapani (37% circa) and Palermo (27% circa). We refer to businesses, often young, mostly established since the year 2000, possibly in conjunction with a period of notable expansion in the wine industry in Sicily but, these apart, there is a solid nucleus of companies already well established with over thirty years experience. Finally, we have separated out two case examples, which have been established for about 60 years and over a century.

Figure 1: Distribution of wineries by province

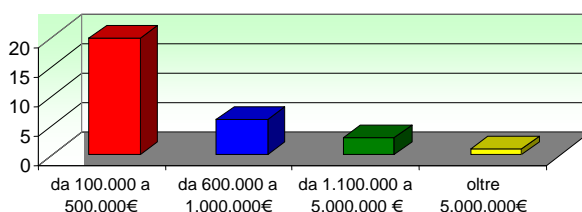


The working units as a whole differ in size as the number of bottles of wine or the invoiced turnover testifies, being generally of modest or very modest size ranging between 100.000 and 500.000 Euro invoiced annually.

Table 1: Year of commencement of business

Yeas	%
dopo il 2000	46.7
1990-1999	10.0
1980-1989	13.3
1970-1979	16.7
1960-1969	6.7
1950-1959	3.3
1881	3.3
Total	100.0

Figure 2: Range of average annual turnover of selected wineries



3.2 The profile of women in wine

If we take a closer look at the protagonists in this female "invasion" into a world that until a few years ago was exclusively male dominated, we note that 1/3 of these women are under 35 years of age and, taken as a total, more than 80% are under the age of 55 whilst only 17% are above this age.

Their cultural level is remarkable considering that about 2/3 (65%) are laureates and the remainder graduates, so in a certain way the titles of higher education appear to be connected to the young age as shown in the following table.

Table 2: Year of commencement of business

Age	% Degree	% Diploma	% Other
up to 34	72.7	27.3	
form 35 to 54	62.5	31.3	6.3
over 55	33.3	66.7	

Also as a direct consequence of the very recent birth of many of these businesses, our protagonists mainly began their work in more recent years. Many of our

Figure 3: Distribution by range of age

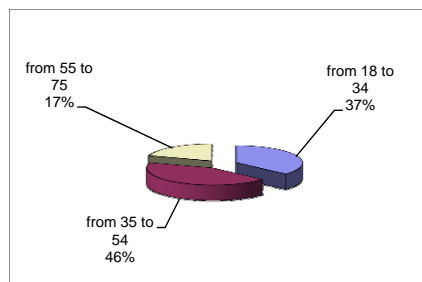
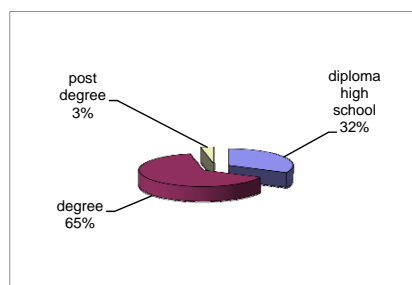


Figure 4: Distribution by qualification



entrepreneurs began their activity in the business, not just as wives or daughters of wine producers, but as owners (86% of cases) of the business; only 14% of the women we met with have been recruited from outside to cover a managerial role.

Table 3: Activities in collaboration with: (%)

husband	parents	brothers	children	other
42.7	70.7	9.7	5.3	5.0

The majority of female protagonists in this industry have assumed a multi task role but almost all of them cover administrative and managerial functions truly incorporating every aspect relative to communications, marketing, promotion and additionally in two cases the role of wine technician was also included.

We also find ourselves in the presence of women with a strong personality given that only 3.3% had difficulty in establishing themselves into a central position in the business; nevertheless, once that obstacle was overcome they all had to

Figure 5: Year of beginning of women activity in the firm

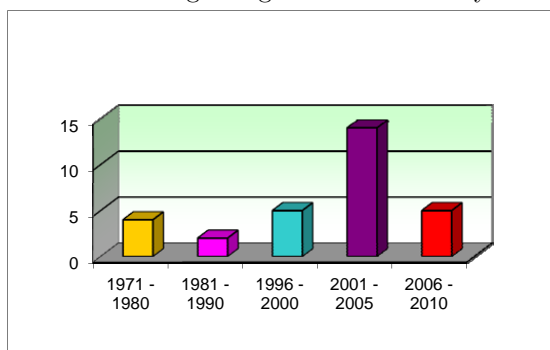
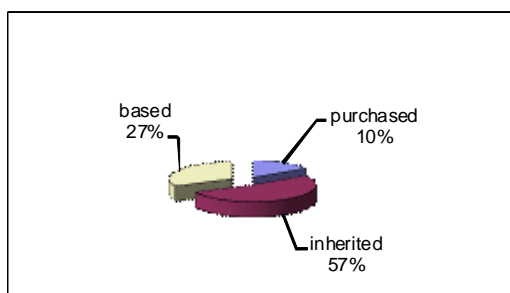


Figure 6: Reasons that led to undertake the activity



struggle with numerous problems that were inevitable in this sector; amongst these the foremost proved to be a huge amount of bureaucratic obstacles (things which men face as well) and secondly the challenge of reconciling work and family responsibilities.

The remaining difficulties fall within the group of managerial problems that both men and women have to face, but amongst these it was pleasing to note that only 20% of cases were put down to their own lack of competence in business administration being the cause; however, even this did not prove to be an obstacle to their progress that could not be overcome.

3.3 Motivation

But what were the motivating factors initially driving these women to begin? Essentially the two basic principles were a passion for their work (66.7%) and the

Figure 7: Type of activity

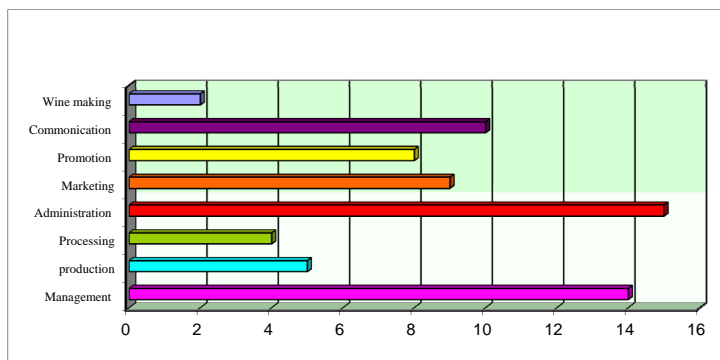


Table 4: Issues addressed by women during their activity

Issues addressed	Value % *
Assert their authority	3.3
Lack of expertise in business management	20.0
Difficulties in finding appropriate staff	6.7
Limited availability of space local	6.7
Combine work with family	26.7
Acquire new customers	20.0
Difficulties in bureaucracy	73.3

* % of preference assigned to each variable

desire to carry on the family tradition (63.3%); also many other stimuli were not lacking as in general each participant in our report in 90% of cases was motivated by more than one thing. For this reason it is also interesting to examine all things that emerged to understand some psychological aspects of our protagonists.

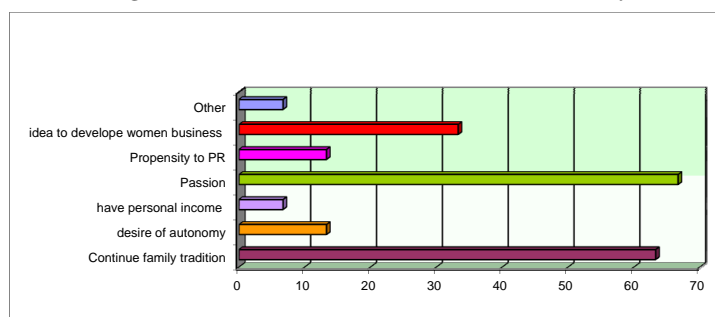
Given that passion for the job was the foremost motivation (66.7%) we understand that taking on this type of work is based on an instinctive but well considered personal choice, showing a strong desire to reach a personal objective. At the same time, however, the strong "feminist" input is not a cause of separation from family or tradition insofar as the motivating factor of wanting to continue in the family tradition reached 63.3%.

The other motivating factors are also interesting and merit an additional close analysis which we are not able to develop here but, it is worth emphasising that, in no case was the work taken due to lack of an alternative; in other words they did not become "women of wine" just for the sake of expediency!

Table 5: Motivations that led to this activity

Motivations	Value %
Continue a family tradition	63.3
Desire of autonomy	13.3
Have a personal income	6.7
Lack of alternative job	0
Passion	66.7
Aptitude to public relation	13.3
Develop a female business	33.3
Others reasons	6.7

Figure 8: Motivations that led to the activity



3.4 Promotion and communication activities

Whether due to the preponderance of younger ones, or for their qualifications or for the passion that drives them, there is ample room for communication vehicles and each participant uses more than one in most cases; in fact in just 25% of cases only one type of communication was employed.

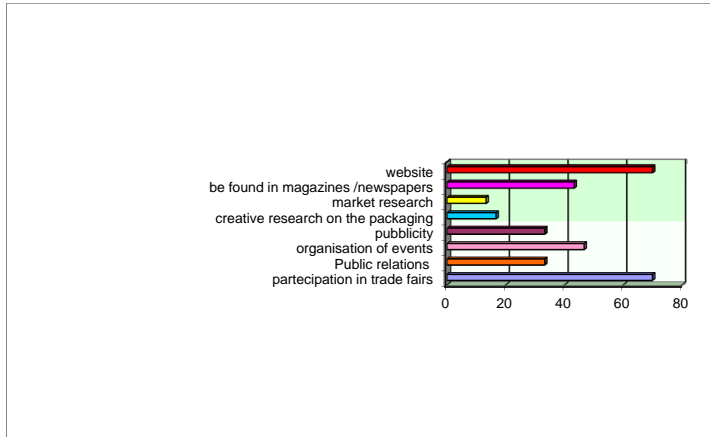
Among the communication techniques there emerge eight different types that are typical to this sector, and still remain effective; participation at trade fairs (70%), organising events, market research, public relations etc.

Very particular attention has been directed at having an internet site, (70% of cases), classifying it, in this way, at the same level as other more traditional means of communication such as participation at trade fairs and undoubtedly proving itself to be a strong innovative aspect.

Table 6: Promotion and communication activities

Type of activity	Value %
Participation in trade fairs	70.0
Public relation	33.3
Organisation of events	46.7
Advertising	33.3
Creative research on packaging	16.7
Market research	13.3
Presence in magazines / newspapers	43.3
Website	70.0

Figure 9: Promotion and communication activities



3.5 Changes Made

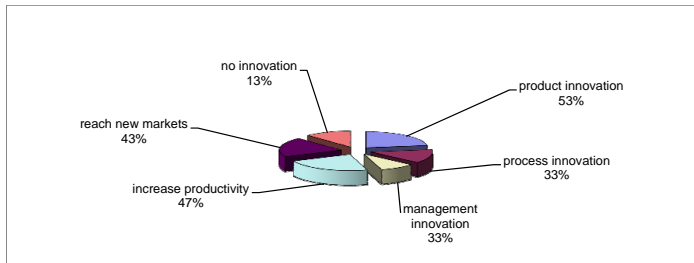
Among the objectives that were set to reach within this work, certainly one of the most interesting was that of coming to know the changes within the internal organizational structure since the introduction of the female workforce.

The result has been that over 50% of the businesses have effected innovation of both products and processing; the impetus given to market research with a well defined product target has helped to produce product segmentation so as to reach a greater variety of consumers, thereby, creating an increase in productivity and expanding target markets whilst moving also into foreign markets. Among the product innovations we would highlight is the strong presence (42%) of red wines showing the attention given to market requirements and to the OCM directives regarding regional wine.

Table 7: Changes made in the firm

	Value %
Product innovation	53.3
Process innovation	33.3
Management innovation	33.3
Increase productivity	46.7
Reach new markets	43.3
No innovation	13.3

Figure 10: Changes made in the firm



Among the other innovations let's remember the objective of reaching, as nearly as possible, every type of consumer through market segmentation, particularly with medium to low quality wines which sell more, even if there is no lack in the niche market share reaching the discerning consumer, who looks closely at the quality of the product.

Figure 11: Range of sale prices for bottles (%)

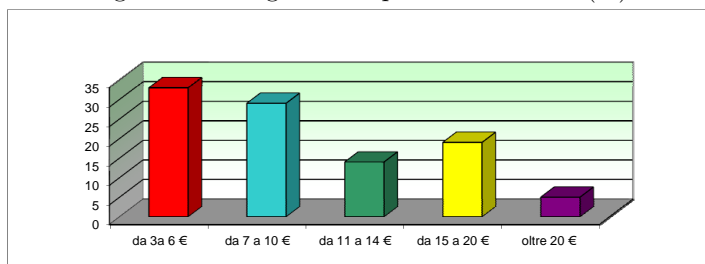
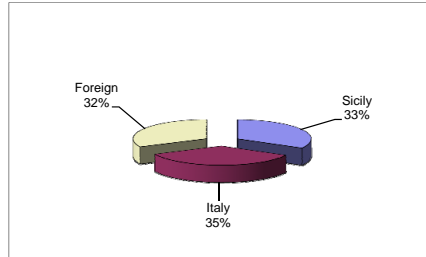


Figure 12: Target markets



3.6 Other development activities

Among the innovations introduced a particular mention should be given to hospitality and promoting the brand which has been carried out with particular success by the women in wine and surely represents a feather in their cap, due to the widespread wine and food tourism which can be considered as a fashionable phenomenon which has seen real growth in recent years. This area of activity embraces, not just visiting the cantina and tasting the wines, but also organising events linked to promoting awareness of new products, and even to gaining sponsorship.

Naturally, this type of activity is held in high esteem by the entrepreneurs because, apart from being, as we have seen, an excellent channel for promoting the products, it is also an important element contributing to raising the corporate image. Closely connected with this last aspect is the link between wine and tourism for which we recognise several elements can contribute to clarify this aspect and so keep us informed as to how the "female" factor takes on this link. Aspects we feel are useful in this regard are the "wine trails" and the "visits to the cantina"; the first, at least for many participating enterprises, is a real help to their wine tourism and effectively, considering that 50% of the cases studied find themselves on the wine trail, it can be concluded that it is an important element in promoting wine tourism.

The other element that connects wine and tourism is, as we have said, the "visits to the cantina" which constitutes a privileged aspect as the internal presence offers further "contact opportunities" and the various interviews have given much weight to this area as shown by the fact that some 80% of the cantina's are equipped to handle this aspect. During these visits, wine tasting is of great importance, as the operatives are only too well aware, given that the preference towards this is 70%.

Table 8: Wine routes and companies associated

Wine routes:	N.of compagnie associated
Del Marsala e del Moscato di Pantelleria	3
Terre sicane	3
Dell'Etna	1
Val di Mazara	2
Del faro	1
Mamertino	1
Bianco 'Alcamo	1
Nero d'Avola e Cerasuolo di Vittoria	3
Total	15

Table 9: Services offered to visitors

	% total
Tasting	70
Events	30
Sale	26.7
Other	30

4 Statistical Analysis of certain factors of development of the wine firms

We wanted to verify the existence of the association between some professional characteristics, considered important for this analysis and some types of their business management of the women with managerial roles, with the aim to verify, more in detail, the background of wine firms led by "female managers" interviewed. In the first case (table 10) we wanted to verify, initially, if there were independence¹⁰ between the qualitative variables "Sectors", where "female managers" carry out their activities, and "Motivation", that moved them to take up a career in the wine making business. Having established the lack of independence between the two variables, we proceeded to measure the level of association.

The Pearson contingency coefficient obtained was $C=0.2052$, whilst $C_{MAX}=0.8165$, comparing the two values we obtain $C'=0.2513$, which denotes a modest association between the two values. This means that the sector where woman carries out her activities in the firm has a modest dependence on motivation (family tradition,

¹⁰The proof of independence was firstly carried out for tables 2, 3, 4 and 5.

Table 10: Company's sectors of activity and Motivation

Sectors of activity	Motivation ^a			Total
	Family tradition	Passion	Female business idea	
MANAGEMENT	10	4	2	16
PRODUCTION ^b	1	1	0	2
ADMINISTRATION	4	1	1	6
MARKETING ^c	3	2	1	6
Total	18	8	4	30

a) Among the "Motivation" there were also "desire of autonomy", "desire to have a personal income", "lack of employment alternatives" and "personal skills for public relations" which have not been optioned
 b) The variable, indicated in the Table as "PRODUCTION" also includes variables "Processing" and "Oenology".
 c) The variable, indicated in the Table as "SALES" also includes variables "Marketing", "Promotion" and "Communication".

passion, the idea of being a female entrepreneur) that pushes women to take on managerial roles in the wine firms. It appears however that, among the women interviewed, the motivation to "continue the family tradition" affects 60% and from these 33% had also control of the business management. The motivation of "Passion" affects 27% of whom 13% had also control of the business.

In the second case (table 11), we wanted to quantify the dependence between the variables "media used" and "sectors" in which the "female manager" carries out her activities in the firm. The contingency coefficient obtained was $C=0.3878$, brought to its highest value, $C_{MAX}=0.7071$, assumes the value of $C'=0.5484$.

Table 11: Media used and Company's sectors of activity

Media used ^a	Sectors of activity				Total
	Management	Production	Administration	Marketing	
PUBLIC RELATIONS ^b	15	2	1	5	23
ADVERTISING	5	0	2	0	7
Total	20	2	3	5	30

a) The variable, indicated in the Table as "MEDIA USED" also includes variables "Packaging research" and "Market research".
 b) The variable, indicated in the Table as "PUBLIC RELATIONS" also includes variables "Partecpation in trades" "Organization of events" and "Internet site".

This coefficient value demonstrated that between the two subjects there is a subtle association, greater than in the first case. This indicates that the means of communication used (public relations and publicity), depend on the position covered by the woman in the business. Such means of communication are considered important also on the basis of other factors, first among many, innovation. It seems appropriate to reveal that 67% of the women interviewed who "manage"

the firms are interested in using the most modern forms of communication (50%), which are public relations, participating in trade fairs, organising events, wine tasting, communications, internet, etc., because they are considered more efficient and innovative than traditional ways (17%) such as publicity in newspapers, trade magazines and billboards.

In the third case (table 12), for the relation between the "media used" and "innovations introduced" into the firms led by women, we obtained a value of $C=0.4946$, $C_{MAX}=0.8165$ and $C'=0.6058$ which demonstrated that between the two variables there is an adequate connection.

Table 12: Media used and Innovation introduced

Media used	Innovation introduced						Total
	Product innovation	Process innovation	Management innovation	Increase productivity	Reach new markets	No innovation	
PUBLIC RELATIONS	5	3	2	2	7	3	22
ADVERTISING	1	0	2	0	0	1	4
RESEARCH ON PACKAGING ^a	2	1	0	0	1	0	4
Total	8	4	4	2	8	4	30

a) The variable, indicated in the Table as "PACKAGING RESEARCH" also includes variables "Marketing research".

This result gives interesting information for interpreting the politics of innovation introduced into the firms managed by women. In fact we observe that there exists a dependence between the strategy of communication selected to publicise the business in the market and the types of innovation introduced into the business. In our case, carrying out an analysis on one business innovation, we found that product innovation and spreading of target markets concerned 27% of firms, followed by process and organisational innovation (14%). Such forms of innovation are perfectly in line with the most used media and communication tools, which are precisely "participation at trade fairs", "organising events" and "creating an efficient internet site". This means that the innovation introduced into the business is directly aimed to obtain immediate economic results that are clearly visible externally, rather than being based on long term strategic choices.

Also in this case (table 13), for the variables "innovations introduced" into the business and "sector" of activity we have measured the level of association.

The value of $C=0.5968$, $C_{MAX} =0.8660$ and $C'=0.6891$, denotes in this case a good dependence between the two subjects. This means that the type of innovation introduced by the women has a good dependence with the sector where each of them functions within the business. We observed that 33.3% of the women

Table 13: Innovation introduced and Company's sectors of activity

Innovation introduced	Sectors of activity				Total
	Management	Production	Administration	Marketing	
PRODUCT INNOVATION	7	0	2	1	10
PROCESS INNOVATION	1	1	0	0	2
MANAGEMENT INNOVATION	2	0	2	0	4
INCREASE PRODUCTIVITY	1	0	0	1	2
REACH NEW MARKETS	3	0	1	4	8
NO INNOVATION	3	1	0	0	4
Total	17	2	5	6	30

introduced product innovations and 27% preferred spreading their target markets. We refer to women (57%) who directly manage the business (often with optimum results), for this reason they involve themselves in choosing what form of innovation to introduce into the sector that they judge to be more strategic.

Finally, in the last case (table 14), we observed the level of association between the subjects "issues addressed" by the women in the business and "innovations introduced".

From the contingency coefficient calculation we obtain $C=0.6831$, $C_{MAX}=0.9128$ and $C'=0.7484$, which denotes, also in this case, a good dependence between the two variables, in fact we observed that the types of problems faced depended on the choice of innovation. In particular 40% of those interviewed complained greatly about the onerous bureaucratic results owing to procedures of accessing financing or to contributions from the European Union aimed at investment for innovation. It is also interesting to stress the problem of reconciling professional activity with family life which often shows itself to be difficult (16%), so a problem really exists, in the absence of ideal social politics, for those women deeply involved in their work that also have to dedicate themselves to their family.

Table 14: Innovation introduced and Issued addressed by women during their activity

Issues addressed ^a	Innovation introduced						Total
	Product innovation	Process innovation	Management innovation	Increase productivity	Reach new markets	No innovation	
ASSERT THEIR SHAPE	0	0	1	0	0	0	1
INADEQUATE SKILLS	1	1	0	0	0	2	4
RECRUITING STAFF	1	0	1	0	1	0	3
COMBINE WORK WITH FAMILY	1	1	2	0	1	0	5
INCREASE BUSINESS	3	0	1	0	0	1	5
MANAGE BUREAUCRACY	4	3	0	3	1	1	12
Total	10	5	5	3	3	4	30

a) The variable, indicated in the Table as "ISSUED ADDRESSED" also includes variables "Lack of spaces, offices ad plants in the firm" which have not been optioned.

Table 15: Summary of Contingency coefficients

Factors	Values of C	Values of C'
Sectors/Motivation	0.2052	0.2513
Media/Sectors	0.3878	0.5484
Media/Innovation	0.4946	0.6058
Innovation/Sectors	0.5968	0.6891
Issues/Innovation	0.6831	0.7484

5 Conclusion

The results of our research have allowed us to understand the characteristics that identify the Sicilian viticultural business under female direction and the relationship that exists between certain growth factors observed in the firms analyzed.

From the obtained results we can say that the motivational elements, that have driven those women interviewed to take up working in the viticultural business, are principally "Passion" and "a Desire to carry on the family tradition" and that the sector in which they work shows a modest dependence on the aforementioned motivational factors. In fact nearly all those interviewed actively work in more than one sector, principally in the areas of Administration, Management and Communications. The means of communication carries great importance in businesses conducted by women, having a modest dependence on the areas of activity of those interviewed, in fact they use different forms of communication to expand

their target markets.

Innovation that is not always utilised in Sicilian businesses and that is often put to one side on the hierarchical scale of priorities for investment even in viticultural businesses, seems on the other hand to be an important element for the "women of wine". In fact we noted that the contingency coefficient reached its highest value in the case of "innovation/sector" and "innovations"/"issues addressed" and that highlights the sensitivity which women in particular possess with respect to technical innovation, as catalysts of company development.

It is certain that, whether as owner of the company or a subordinate in a family business, the "female managers" interviewed are those who make the decisions in the company, responsible for taking risks, but also successful in making the right (innovative) choices. In fact today, in Sicily, these 30 businesses are, on the whole, a major success. It is clear that the problems encountered are tightly linked to the managing of the business, but it is interesting to note that those issues are additional to all the other raised by women that have to balance their work with family responsibilities, because of a lack of adequate social politics for support.

Finally, we can assert that the wine firms run by women are a positive, innovative and growing, therefore able to open better and new prospects for development in this sector.

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