

VALUE CHAIN ANALYSIS: A CASE STUDY OF THE GRAPE GROWER PARTICIPATION IN THE BOTTLED CHILEAN RED WINE

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Currently world production of wine is around 265 million of hectoliters (Mhl), while Chile only represents around 4% (10.463 Mhl), in terms of exports chilean wines represents 6.7% of the world wine trade, being fifth in the top ten wine exporters. Chile has 126.0 thousands of hectares (mha) of vineyards for wine production located from the north, (Atacama region) to the south (Los Lagos region) predominantly with red cultivars (73.3%). Cabernet Sauvignon is the most planted red variety, representing the 44.2% of the red varieties and 32.4% of the total national vineyards. Regarding wine production, 10.160 thousands of hectoliters (mhl) are wines with appellation of origin representing 80.9% of the total wine production in Chile. Cabernet Sauvignon is the variety with the highest wine production with appellation of origin reaching 33.3% participation. Maule region is by far the biggest wine region in Chile in terms of wine production, with 4.874 mhl of wines with appellation of origin, representing the 48.0% of the national production of wines with appellation of origin and 38.8% of the total national wine production. To our knowledge, little information is available about bottled chilean wine value chain. This exploratory research aimed to analyze the participation of the grape grower in the value

chain of the bottled wine in Chile. The study was based in data collection about costs involved in production of bottled wine from Cabernet Sauvignon and Maule valley appellation of origin. A registry of the wine producers and their range of wines of Cabernet Sauvignon with Maule valley appellation of origin were elaborated based in the information from the directory of the wine industry provided by the Chilean Wine Corporation (CCV). Afterwards, the presence of the selected wines was checked in supermarket gondolas located in the eastern suburbs in the Metropolitan Region. From the wines that were founded in all the supermarkets, the price in gondola was registered and an average price was calculated. A decomposition of the several costs involved in the value chain of bottled wine was made and the participation of the grape grower was identified using the financial cost and obtaining the cost per unit produced. The items analyzed were: sales price in the supermarket channel, sales price at the winery, dry cost and operational costs. Three ranges of prices were defined: less than \$3.000 bottle⁻¹ (less than US\$6.0), \$5.000 bottle⁻¹ (US\$11.0) and more than \$5.000 bottle⁻¹ (more than US\$11.0), according to what was checked in the gondolas of the supermarket and the quality/price relation. The value-added tax (19%) and alcohol and alcoholic beverage tax (15%) were discounted from the average value list from the supermarket, obtaining the average net value per bottle of wine. Afterwards, quotations to wineries were requested in order to assess the net value with and without discounts. For the analysis of the dry cost, quotations were requested to industries which supply bottles, capsules, corks, front and back labels, capsules and boxes. To assess the winemaking costs, quotations to winemaking services providers were requested. All the costs were arranged in tables with averages values and percentages in order to analyze the distribution of the production costs in function of the dry cost, operational costs and the further segregation of the value chain of the different range of prices per bottled wines studied, obtaining as a result the participation of the grape grower in the value chain. The results had shown that a total of 2.068 bottled wines with and without appellation of origin were found, from which 753 wines correspond to wines Cabernet Sauvignon of the type varietal, rosé and blend, from which 518 are varietal and only 69 wines are Cabernet Sauvignon and Valle del Maule appellation of origin, and only six wines were found in all the supermarkets of the eastern suburbs in the metropolitan region.

Regarding dry cost, it has a participation of 16.6% in the range price lower than \$3.000 bottle⁻¹ (less than US\$6.0), 13.8% in the range of \$3.000 to \$5.000 bottle⁻¹ (US\$ 6.0 to US\$11.0) and 11.1% in the range over \$5.000 bottle⁻¹ (over US\$11.0). In the other hand, the profit obtained by the supermarket was 39.6% for the range lower than \$3.000 bottle⁻¹, 29.0% for \$3.000 to \$5.000 bottle⁻¹ and 10.1% for over \$5.000 bottle⁻¹. In relation with the participation of the grape grower, it increase as the price of wine bottle rise, being 8.2% in the range lower than \$3.000 bottle⁻¹, 20.6% for \$3.000 to \$5.000 bottle⁻¹ and 36.7% for over \$5.000 bottle⁻¹. When the value of the kilogram of grape obtained in this study was compared with the value paid in the market, the results showed that in the ranges \$3.000 to \$5.000 bottle⁻¹ and over \$5.000 bottle⁻¹ exist a difference of \$147 and \$267 (US\$0.31 and US\$0.56) per kilogram of grape respectively, indicating that the price paid in the market is lower than the price paid in this study, existing the possibility to pay a higher price for the grape used for the elaboration of the wines studied. In the range lower than \$3.000 bottle⁻¹, it was found that the value paid in the market is higher than the price paid in this study, with a difference of \$33 (US\$0.07) per kilogram of grape, therefore the value paid in the market is within the values that correspond.