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# MODERN APPROACHES TO ANALYSING THE PECULIARITIES OF CAPITAL FORMATION OF WINERIES (ON THE EXAMPLE OF ODESA REGION)

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Abstract. The article discloses the results of theoretical and practical studies of the analysis of capital formation features of wine-making enterprises in order to optimize its structure to ensure financial sustainability and effective operation of enterprises in the modern economic environment. The article proves that one of the most important tasks of financial management is to create an optimal capital structure of an enterprise. The efficient ratio of the equity capital and the borrowed one significantly influences the result and effectiveness of the enterprise activity. The article contains the analysis of the structure and dynamics of capital formation sources of wineries in Odesa region. The result of the conducted study is to determine the directions of increasing the efficiency of capital formation by wine-making companies in Odesa region.

**Keywords:** wineries (or wine-making enterprises), capital, structure of the capital, equity capital, loan (or borrowed) capital, productivity of capital resources.

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## Introduction

Today the activity of enterprises is influenced by many factors and covers a wide range of organizational and technological, economical and financial issues which need to be solved on a daily basis. An important role among such issues belongs to ensuring a capital need of enterprises through formation of financial resources from various sources. Its effectiveness of functioning in a competitive market conditions, financial sustainability, rational use of assets and, as a consequence, the possibility to achieve a certain volume of activity and to receive a necessary amount of profit which is required for the further development of an economic entity depends on how the ratio of all forms of equity and borrowed capital is shown, what the structure of capital is. The enterprises of wine-making complex have certain features of functioning which significantly affects the formation of their capital structure.

# Literature review

The questions on optimization of capital structure, its compound as well as the efficiency of capital formation are reviewed in the works of famous foreign scientists-economists such as A. Gropelli, J.K. Van Horn, J.M. Vahovych, E. Nikbaht, M. Miller, F. Modigliani, E.F. Brigham. Theoretical and practical approaches to capital structure management are presented in the studies of domestic scientists: I.O. Blank, M.D. Bilyk, V.G. Andriychuk, G.G. Kireytsev, A.M.Podderiogin, L.M. Remniova. A number of domestic scientists studied the issues of optimal capital structure formation at wineries in Ukraine, including: A.M. Avidzba, O.M. Garkusha, O.P. Dykan', O.J. Yermakov, L.O. Marmul', M.V. Melkonian, J.M. Novikov, M.O. Peliakh, P.T. Sabluk and others.

However, the formation problem of optimal ratio of equity and borrowed funds requires its further development since not all the parties of capital structure management received equally complete coverage in scientific works. Moreover, some views were contradictory and some issues were of polemical character. The scientific and practical significance of solution of capital structure management problems of wine-making companies determines the relevance of the chosen theme, purposes and directions of its investigation.

The aim of the study is to update methodological approaches to the analysis of capital formation peculiarities at wineries in Odesa region.

## **Results**

In order to conduct a study of the capital structure of an enterprise it is necessary to carry out the analysis of the liability side of the balance-sheet where all the sources of financing of an enterprise are shown. The data which are given in liability side of the balance sheet allow us to determine the changes which have occurred in the structure of equity and borrowed capital, how much long-term and short-term loan funds are involved in the company's turnover. As the practice shows there isn't a single rule to create an efficient ratio of equity and loan funds not only for the enterprises of one industry but even for one enterprise at different stages of its life cycle and on different market conditions.

At the same time there is a number of objective and subjective factors the consideration of which makes it possible to purposefully create the capital structure and to ensure the conditions for its most effective use at each enterprise. The main of these factors are[1]:

- industry-specific features of the enterprise activity;
- a life cycle stage of an enterprise;
- commodity and financial market conditions;
- the level of return of assets;
- the attitude of creditors to an enterprise;
- the level of profit taxation;
- financial mentality of the owners and managers of an enterprise.

Having taken these factors into account, the analysis of capital structure formation should be carried out in the two directions[6]:

- determination of optimal ratios of equity and borrowed capital use for the given enterprise;
- attracting necessary types and volumes of capital in order to achieve calculated indicators of its structure.

At the same time, the capital structure should be optimized according in the following directions[3]:

- maximization of the level of return on equity;
- the capital cost minimization;

- formation of the target capital structure indicator.

The equity capital is characterized by the following main positive qualities: the ease of attraction and much higher ability to generate the profit as the payment of the interests is not required while using it. In addition, the equity capital has the following disadvantages: limited volume of attraction and, therefore, of possibilities following disadvantages: limited volume of attraction and, therefore, of possibilities of significant expansion of the operational and investment activity of an enterprise, as well as high cost compared to alternative loan sources of the capital formation. Thus, using only the equity capital an enterprise has the highest financial sustainability but limits the speed of its development.

In its turn, the loan capital is characterized by quite wide opportunities in attracting the sources of finance especially at a high credit rating of an enterprise, the availability of a pledge or a guarantee. The borrowed capital provides the increase of financial potential of an enterprise while there is a necessity to significantly expand its assets and to raise the rates of its economic activity volume growth. It is able to

its assets and to raise the rates of its economic activity volume growth. It is able to generate an increase in financial profitability due to the effect of financial leverage.

Meanwhile, the use of the borrowed capital generates the risk of weakening financial sustainability and the risk of solvency loss. The level of these risks grows in proportion to the debt ratio increase. The assets formed at the expense of the borrowed capital generate a lower rate of profit which decreases by the amount of interest per loan, there is also a high dependence of the borrowed capital cost on the fluctuations of financial market conditions. Hence, an enterprise which uses loan fluctuations of financial market conditions. Hence, an enterprise which uses loan capital has a higher financial potential for its development and larger opportunities for financial profitability growth though generates a financial risk and threat of bankruptcy to a greater extend.

Methodical approaches to capital analysis can vary. Herewith, the key purpose is to investigate and systematize the main approaches, to determine the directions for capital analysis improvement and methods of the most objective assessment of its value.[1]

The approach to the capital structure analysis should include the two major aspects: analysis of the process of capital formation and analysis of the process of capital functioning. When conducting capital analysis it is necessary to consider the processes of its formation and development on the one hand, and the processes of its functioning on the other hand in this regard.

The process of capital formation is analyzed by means of evaluation and detailed investigation of the whole set of sources of enterprise capital, by means of determination of the structure and other qualitative indicators of the capital formation

sources as well as defining their value. With the purpose to manage an enterprise, the capital analysis should be distinguished according to the goals of the enterprise development into strategic and current (operating) capital. While analyzing the enterprise capital it is obligatory to use all the approaches of functional analysis of different levels and to view the capital as a set of the property and functions of an enterprise which are interdependent and interconnected in a time aspect [6].

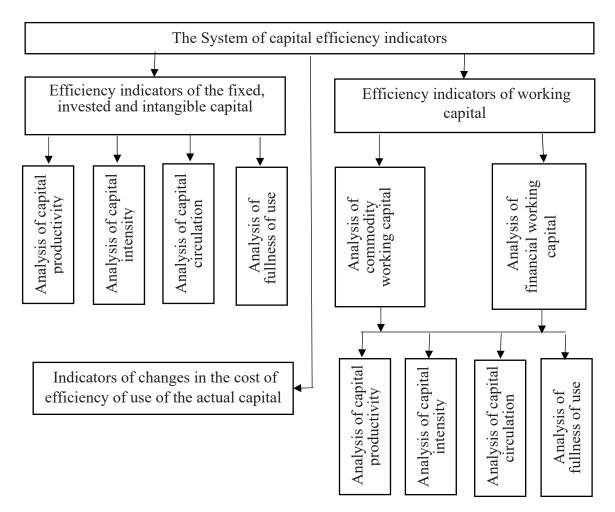


Figure 1. General approaches to the efficiency analysis of the capital usage

When conducting comprehensive analysis of the enterprise capital it is important to follow the sequence of analysis which is based on the order of the stages of turnover and circulation which are passed by the capital. Sticking to the interim principle of capital formation and functioning, one should start the analysis of the records from evaluation of enterprise capital formation sources going afterwards to the next stage- to the analysis of functioning capital (assets) and at the end the analysis of the current capital should be done.

The analysis of the advanced and invested capital is performed according to the three key directions:

- assessment of the effectiveness of investments;
- evaluation of the advanced capital efficiency;
- estimation of the advanced and invested capital profitability.

While analyzing, the capital of an enterprise should be considered not only as a quantitatively measurable indicator but also as the main qualitative feature of an enterprise.

The system of comprehensive analysis of the capital must envisage its application at all the stages of the enterprise capital formation and functioning from the initial previous evaluation of the business to the complete capital cost recovery including the cycle of its expanded maintenance. The system of indicators is objectively necessary to develop the methods of comprehensive economic analysis of the capital. In fact, today in this area we are dealing with some set of analytical tasks which is not absolutely complete and is obviously not constructed into one methodology.

General approaches to the efficiency analysis of the capital usage can be shown as a diagram in Fig.1 [6].

Plenty of indicators are used to assess and analyze the capital. At the same time it is necessary to note that the capital is a category with a complex economic nature and its indicators are not reflected directly in financial records of an enterprise.

Therefore, it is only possible to receive the capital indicators using calculation and analytical methods. One of the most widespread indicators which characterizes the capital structure is the independence ratio which is a ratio of the equity capital to the balance-sheet total. This ratio is important for both the investors and creditors of an enterprise since it characterizes the share of funds which was invested by the owners into the total cost of the enterprise property.

It is considered that if the independence ratio is more than or is equal to 50% the risk of creditors is minimal: having sold half of its property created at their own expenses, an enterprise will be able to pay off its debts. It should be emphasized that this provision cannot be used as a general rule. It needs to be clarified taking into account the specifics of the enterprise activity and, first of all, the kind of industry which an enterprise belongs to.

The financial sustainability ratio is the share of net assets in the total assets of an enterprise, the financial sustainability ratio shows the share of the enterprise assets which is supported by the equity capital. It is equal to the ratio of the amount of own resources and long-term credits and loans to the balance sheet total assets.

The funding ratio (the ratio of the equity capital to the borrowed one) displays which part of the enterprise activity is financed from its own funds and which part is financed from the loan funds. A situation when the funding ratio value is less than one (the bigger part of the enterprise property was formed at the cost of the borrowed funds) can indicate the presence of danger of insolvency and it often prevents from the receipt of new loans. Thus, the system of capital indicator analysis must be created according to the three key directions:

- 1) the indicators of capital formation sources;
- 2) the indicators of the functioning capital;
- 3) the indicators of results of the capital functioning.

First of all, among the most important indicators which characterize the capital formation sources are: the volume, the structure and cost of all the capital sources and its separate components.

The functioning capital is determined by another kinds of indicators: they are volume indicators of assets and the structure and the price of the enterprise assets.

The efficiency indicators of capital use include: profit, financial result in the form of the current capital, profitability, capital intensity, the use of amortization payments, changes in the indicators of the financial condition. While developing the methods of capital analysis a systematic approach should be used which implies the application of a comprehensive system of indicators. A range of users of this information, sources of information and indicators which are to be displayed must be defined in order to fulfill this.

The peculiarities of development of Ukrainian companies in the conditions of the market restructuring of the economy determined the processes of their capital structure change. Together with the development of market relations, the volume and range of sources of economic activity financing of companies increase and the ways of mobilizing capital are modified.

The optimal ratio of the loan capital and the equity depends on many factors but foremost it depends on the type of the enterprise activity. Let us analyze the structure and dynamics of the capital formation sources of wineries in Odesa region. The dynamics and composition of the enterprise capital of the wine-making industry in Odesa region during the period from 2015 to 2019 are given in Table 1.

As the data of Table 1 show, the enterprises are generally characterized by both positive dynamics in the capital growth and the negative one. At the same time they even have a different nature of this dynamics.

At the PrJSC "Ismail Winery" the capital growth rate for the period from 2015 to 2019 tended to increase rapidly from 0.52 percentage points in 2016 to 30.18 percentage points in 2019. In general, for the period from 2014 to 2018 the capital of the enterprise grew by 52.59 per cent and was 248763 thous.UAH.

At the PrJSC "Harchovyk" the rate of capital growth during the studied period is characterized by decreasing. During the period from 2015 to 2019 the capital decreased by 38%. Meanwhile, the borrowed funds have also got a tendency to decline (-43.82%). The equity funds, on the contrary, tend to increase.

At PrJSC "Odessavinprom" the rate of capital growth is characterized by uniformity during the studied period of time. From 2015 to 2019 the capital increased almost by two times. However, this growth is only connected to the rise in the loan funds. The amount of equity has a negative value. This fact indicates a low level of financial management.

During the studied period of time at PrJSC "Odessa Cognac Factory" the capital growth rate is characterized by a gradual decrease. From 2015 to 2017 the capital grew, then it slowed down and declined by 11.65 percentage points in 2018. I general, during the period from 2015 to 2019 the capital of PrJSC "Odessa Cognac Factory" increased by 10.31% and was 835401 thous.UAH.

Table 1. The dynamics and composition of the capital of wine-making enterprises in Odesa region for the period from 2015 to 2019

enterprises in Odesa region for the period from 2015 to 2019											
	2015		2016		2017		2018		2019		
Indicators	Thous. UAH	in % until 2014	Thous. UAH	in % until 2015	Thous. UAH	in % until 2016	Thous. UAH	in % until 2017	Thous. UAH	in % until 2018	
PrJSC "Ismail Winery"											
Total capital	163022	21,89	163864	0,52	168232	2,67	191089	13,59	248763	30,18	
Equity capital	10461	-46,99	10467	0,06	10595	1,22	10794	1,88	10995	1,86	
Borrowed capital	152561	33,82	153397	0,55	157637	2,76	180295	14,37	237768	31,88	
PrJSC "Harchovyk"											
Total capital	291065	152,55	274479	-5,70	198626	-27,64	329596	65,94	204351	-38,00	
Equity capital	27482	18,92	31445	14,42	34010	8,16	36751	8,06	39821	8,35	
Borrowed capital	263583	186,07	243034	-7,80	164616	-32,27	292845	77,90	164530	-43,82	
PrJSC "Odessavinprom"											
Total capital	173087	4,19	300611	73,68	324324	7,89	411816	26,98	358627	-12,92	
Equity capital	-88402	54,65	-64940	-26,54	-54809	-15,60	-29458	-46,25	-42906	45,65	
Borrowed capital	261489	17,11	365551	39,80	379133	3,72	441274	16,39	401533	-9,01	
			Pr	JSC "Ode	ssa Cognac	Factory"					
Total capital	757326	9,11	788573	4,13	1047849	32,88	925736	-11,65	835401	-9,76	
Equity capital	140181	-2,88	128962	-8,00	134402	4,22	138334	2,93	185329	33,97	
Borrowed capital	617145	12,26	659611	6,88	913447	38,48	787402	-13,80	650072	-17,44	
PrJSC "Bolgrad Winery"											
Total capital	63815	-34,30	62129	-2,64	100107	61,13	89654	-10,44	76963	-14,16	
Equity capital	-41206	42,04	39391	-195,6	80353	103,99	74899	-6,79	62910	-16,01	
Borrowed capital	105021	-76,34	22738	-78,35	19754	-13,12	14755	-25,31	14053	-4,76	

Source [3]

At PrJSC "Bolgrad Winery" the capital growth rate tended to change from 2015 to 2019. In 2015-2016 it declined. In 2017 the capital increased by 61.13%. During the following years it decreased again. In total, the capital of the company grew by 20.60% and was 76963 thous.UAH during the period from 2015 to 2019.

The structure of capital formation sources of wine-making enterprises in 2015-2019 is presented in Table 2.

The highest share of the borrowed capital was observed at PrJSC "Ismail Winery"in comparison with other enterprises and was 95.58% on 01.01.2020 and at PrJSC "Harchovyk" where it was 80.51%. PrJSC "Odessavinprom", which has had a negative value of the equity for a long time, operates at the expense of significant amounts of the borrowed funds.

Table 2. The share of the equity and loan capital in the total amount of the capital of wineries in Odesa region

capital of whiches in ouesa region											
Name of enterprise	An average capital size for 2015-2019, thous. UAH	01.01. 2016		01.01. 2017		01.01. 2018		01.01. 2019		01.01. 2020	
		equity capital,%	borrowed capital,%								
PrJSC «Ismail Winery»	186994	6,42	93,58	6,39	93,61	6,30	93,70	5,65	94,35	4,42	95,58
PrJSC «Harchovy k»	259623,4	9,44	90,56	11,46	88,54	17,12	82,88	11,15	88,85	19,49	80,51
PrJSC «Odessavin prom»	313693	-51,07	151,07	-21,60	121,60	-16,90	116,90	-7,15	107,15	-11,96	111,96
PrJSC «Odessa Cognac Factory»	870977	18,51	81,49	16,35	83,65	12,83	87,17	14,94	85,06	22,18	77,82
PrJSC «Bolgrad Winery»	78533,6	-64,57	164,57	63,40	36,60	80,27	19,73	83,54	16,46	81,74	18,26
On average	X	3,35	96,65	9,14	90,86	1,12	88,88	11,88	88,12	14,86	85,14

Source [3]

In 2015-2019 on average at the wineries in Odesa region there was an increase in the share of the equity capital in the total amount of capital (from 3.35% on 01.01.2016 to 14.86% on 01.01.2020) which occurred mainly due to the growth of the equity capital share at such wine-making enterprises as PrJSC "Bolgrad Winery" and PrJSC "Odessa Cognac Factory".

Due to the conducted researches, it is possible to conclude that: the smaller the winery is, the bigger the share of the equity it has in the total capital and, conversely, when the size of an enterprise increases, the share of the borrowed capital rises. So, the largest share of the equity capital belonged to PrJSC "Bolgrad Winery" (with an average capital volume 78533.6 thous.UAH in 2015-2019) and was 81.74% on 01.01.2020 and PrJSC "Odessa Cognac Factory" (with an average capital volume 870977 thous.UAH in 2015-2019 and had a share of 22.18%).

The obtained results allow us to establish the following dependence: the smaller the enterprise is, the larger share of the equity it has in the total capital.

Consequently, the processes, which are connected with improving the management system of the enterprise capital, its formation and use in particular, are of special importance since the creation and development of the necessary financial resource base is a substantial condition for sustainable economic growth for an enterprise and can become the financial basis for its further development.

## Conclusion

The study which is conducted in the article allows us to make the following conclusions of theoretical and practical nature. One should note that the capital of an enterprise is the money held by the company and intended to cover the requirements to ensure its functioning; the capital depending on the sources of attraction is divided into the equity capital and loan one which have their own peculiarities, advantages and disadvantages which influence the process of the enterprise functioning in some way.

The analysis which was done while research allowed us to determine the current problematic aspects of capital formation by the companies of the wine-making industry. In recent years the wineries with large total capital have a significant volume of the borrowed capital. Such a structure of the capital reduces financial sustainability of these enterprises that is why further investigations should focus on the development of the measures to improve the efficiency of wineries which is based on the creation of the optimal capital structure.

Practice shows that there is no single rule to form an effective ratio of the equity and loan funds not only for the companies of one industry but even for one enterprise at various stages of its lifecycle and on different market conditions. Simultaneously, there is a number of objective and subjective factors, the consideration of which allows us to purposefully create the capital structure, ensuring the conditions for its most effective use at each enterprise. First of all, the modern approaches to the capital structure analysis should include the two major aspects: the analysis of the capital formation process and the analysis of the process of the capital functioning. Thereby, while conducting the capital structure analysis it is necessary to consider both the processes of its formation and development and the processes of its functioning.

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