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## **Sustainable Balanced Scorecard Model for Chilean Wineries**

# Lionel Valenzuela Oyaneder

Industrial Departament, Universidad Técnica Federico Santa María, Santa María 6400 Street, Vitacura, Santiago. (lionel.valenzuela@usm.cl)

# Sergio Maturana Valderrama

Industrial and Systems Engineering Department, Pontificia Universidad Católica de Chile, Santiago, Chile. Vicuña Mackenna 4860 Street, Macul, Santiago.(smaturan@ing.puc.cl)

#### Abstract

The purpose of this article is to propose a Sustainable Balanced Scorecard model for Chilean wineries (SBSC). This system, which is based on the Balanced Scorecard (BSC), one of the most widespread management systems nowadays in the world, Rigby, and Bilodeau (2011), will allow the wine companies to manage the business in two dimensions: sustainability, which will measure how sustainable is the business and the temporal dimension, linking the measurement of strategic performance with the day to day. To achieve the target previously raised, a research on sustainability will be developed, along with strategic performance measurement systems and a diagnosis of the Chilean wine industry, based on in-depth interviews to 42 companies in the central zone of Chile.

On the basis of the assessment of the wine industry carried out, it is concluded that the bases for a future design and implementation of the SBSC system are in place since it was found that 83% of the vineyards have a strategic plan formally in place, which corresponds to the input of the proposed system.

Key words: Sustainability, Strategic Performance Measurement Systems, Balanced Scorecard, Wineries

#### 1. INTRODUCTION

In light of current events such as global warming and the pervasive changes in climate that affect our world and threaten our ecosystems and economic outlook therein, sustainability has become increasingly more important and has drawn greater attention in the business world. Sustainability is a property that arises from **sustainable development**, which in turn is defined as "Development that meets the demands of the present without compromising the ability of future generations to meet their own needs" (Brundtland of the UN Commission, 1987). The wine industry, one of the oldest industries in the world (Pretorius, 2000) is no exception; however, it has been slowly assimilating sustainability in its management. In California, United States, the first program of sustainable viticulture was introduced in 1992 (Ross and Golino, 2008). However, 13 years had to go by before the first six vineyards would certify themselves under this program (Warner, 2007). Meanwhile in Chile, as recent as 2010, there was the creation of the first initiative of its kind, the national code of sustainability of the Chilean wine industry, which sought to homologate the national wine industry practice to the standards adopted by other main players in the industry. Three years later, 43 wine companies have been certified (http://www.sustentavid.org/es/htm/listado.htm, 2013).

Globally, this industry faces a fairly favorable scenario since according to the International Wine and Spirit Record (IWSR), the year 2010 moved a volume of 23.6 trillion liters, representing 183,1 billion with a growth of 4.5% since 2005, waiting for 2014 an increase of 3.2% compared to the year 2010, (2010 IWSR). This is reinforced by a publication of the Salon Bordeaux Vinexpo, stating that the global consumption of wine between 2012 and 2016 will increase by 5.3% (Salon Vinexpo in Bordeaux, January 2013). In this favorable scenario, Chile stands out as a relevant player, where with its 351 wine companies (Foundation ProChile, 2012) it became the seventh producer, and fifth exporter worldwide during the year 2012 (International Organization of Vine and Wine, 2013).

On the other hand, you can visualize challenges in the wine sector in regards to effective coordination and collaboration among national industry players as far as the management of relevant industry information is concerned (Chilean wine Corporation, 2007). In addition, Chilean wines use little analytical information if anything, which harms access to the super premium wines and icons markets, where competitors use applied science to increase the quality and competitiveness (Moguillansky, 2006). However, in spite of the need to address these opportunities and challenges, thus far there has not been a single system identified that is especially designed for wine enterprises, which can simultaneously measure both: internal performance and sustainability of the company.

The present article has as main objective to propose a methodology to design a Sustainable Balanced Scorecard for Chilean Wineries that helps the wine companies to measure the sustainability of the business and connect the performance of every day with the long term.

This objective will be achieved by addressing the following specific objectives:

- Literature review of the following concepts: sustainability, strategic performance measurement systems, balanced scorecard sustainability in measuring systems.
- Diagnosis of management systems used by the Chilean wine industry.
- Proposal of the conceptual framework and methodology for designing the SBSC.

#### 2. LITERATURE REVIEW

Then the concepts that will be the basis of the methodology to be proposed will be analyzed: sustainability, measuring system performance strategic, Balanced Scorecard and the sustainability in the Management Control systems.

### 2.1 Sustainability

The most widely accepted model, to understand sustainability, is that of Elkington's triple bottom line (1997), which defines the three principles that underlie it:

- Environmental integrity, invites companies to ensure that human activity does not reduce the Earth's resources, understanding these as land, water and air.
- Social Equity, ensures that all members of the society have equal access to resources and opportunities.
- Prosperity, promotes a reasonable quality of life through productive capacity of organizations and individuals in the society (Holliday et al., 2002).

Although many organizations have adopted the rhetoric of sustainability in their external reports and Mission statements (Newton and Harte, 1997), the real goal may be the reconstruction of eroded legitimacy (Banerjee, 2008;.) Gond et al., 2009). This skeptical point of view thrives on lack of impact within the Organization's sustainability study (Bebbington, 2007;) Milne and Grubnic, 2011), in addition to the little attention paid to the role of the sustainability management control systems which support the organizations (Durden, 2008;) Herzig et al., 2012).

In order to learn how it is understood in the global wine industry sustainability, Gergely Szolnoki (2013) developed a research, based on in-depth interviews with 15 companies in the United States, France, Germany, Italy, Spain, Hungary and Greece. One of the main conclusions of the study, is that the majority of those interviewed associated sustainability to environmental or green issues. Only some of them also considered the other two dimensions, economic and social.

### 2.2 Strategic Performance Measurement Systems (SPMS)

Over the past decade, a large number of companies have transformed significantly the measurement of performance and management systems. An important component of this transformation has been the adoption of systems of measurement of strategic performance (SPMS) (Franco-Santos et al., 2012, Micheli and Manzoni, 2010;) Rigby, 2009). Based on these widespread adoption processes, it has been argued that the SPMS have a beneficial impact on performance (Bisbe and Malaga, 2012;) Crabtree and DeBusk, 2008; Davis and Albright, 2004; De Geuser et al., 2009; Hoque and James, 2000) and that this impact is mainly achieved through the contribution of SPMS in successful implementation (for example, better communication, better execution, and more effective monitoring) of the proposed strategies (Mayo et al., 2005;.) Kaplan and Norton, 2000, 2004; Murby and Gould, 2005).

The SPMS can be understood as a subset of PMS. Bispe and Malaga (2012) propose that SPMS are defined as those interfaces that have distinctive features such as:

- The integration of strategic with operational objectives.
- The provision of performance measures in multiple perspectives.

- The provision of a series of goals/indicators/objectives/action plans for each perspective.
- The presence of explicit causal relationships among the goals or performance measures.

On the other hand, Franco-Santos et to al. (2012) defined in a more concrete way the distinctive traits of the SPMS. According to them these are, in the end, intended to support the achievement of the company's strategic objectives, to be measured through both financial and non-financial measures.

These perceptions of the SPMS have been challenged by recent research. A stream of studies suggests that the SPMS can be used not only to ensure the implementation of the planned strategies but also to shape their formulation processes (Bourne et al., 2000;) Gimbert et al., 2010; Kaplan and Norton, 2008).

Within SPMS there are tools such as the Balanced Scorecard (BSC) (Kaplan and Norton, 1992), the levers of control (Simons, 1995) and the performance Prism (Neely et al., 2002). Of these three models, the BSC is one of the most widely used strategic performance measurement systems today. 63% of the 1,230 companies surveyed in the study of Rigby and Bilodeau (2011) used the BSC. This is reinforced by 60% of the Fortune 500 companies, which used the BSC in 2011 (<a href="http://www.leadershiprising.com">http://www.leadershiprising.com</a>).

# 2.3 Balanced Scorecard (BSC)

The BSC was born in 1992 as a result of the research done by Kaplan and Norton (1992) on twelve U.S. companies, which stood out for their excellent performance measurement systems. This system proposes that the strategic objectives, indicators and action plans of a company be grouped together into four perspectives: financial, customer, internal learning and development processes (Kaplan and Norton, 1996).

Kaplan and Norton (1996) provide a procedural framework through which the BSC can be applied as a system and thus help to manage the company's strategy.

The proposed framework has four stages (Kaplan and Norton, 1996):

- "The translation of the vision", refers to the clarification and the achievement of a consensus on a version of the strategic vision of the company, that is operating at all levels of the organization, from the top level down to the local level.
- "Communicate and link", the process by which managers communicate their strategy from the top to bottom in the Organization, linking departmental and individual objectives.
- "Business planning", the financial budget is integrated with the strategic objectives.
- "Feedback and learning", offers companies the ability to develop strategic learning, cause and effect relations, and can check the operation of the strategy.

The BSC model identifies four related activities that may be critical for the majority of organizations at all organizational levels: (a) investment in learning and growth capabilities, (b) improving the efficiency of internal processes, (c) the provision of value to the customer, and (d) increasing the company's financial success. (Kaplan and Norton, 1992, 1993, 1996, 2001, 2004).

Likewise, the four classic prospects proposed in the model are:

- (a) the perspective of learning and growth. This perspective reflects the ability of employees, information systems and organizational alignment to manage a business and adapt to change. The success of the process depends on qualified and motivated employees as well as accurate and timely information.
- (b) the internal process perspective. A causal model of the BSC assumes that the capabilities of employees drive the improvement of internal processes. Kaplan and Norton divided the company into a generic value chain, identifying four areas of high-level processes: (1) innovation, (2) customer management (3) operations, and (4) regulations and the environment. Each of these areas may include the company's main processes and sub-processes.
- (c) the customer's perspective. Identifies the outcomes associated with the delivery of the differentiated value propositions. This includes the market share in specific customers segments that are gained with target customers, the acquisition and retention of customers in specific segments and customer profitability.
- (d) the financial perspective. Financial performance measures indicate if the company's strategy, implementation and execution contribute to the improvement of the company's bottom line. The financial perspective considered strategies for productivity and growth, both having direct impact on the increase in the value of the business.

Kaplan and Norton (2009) also suggested the possibility of modifying, adding new perspectives or modifying the original ones, based on the prospects that they initially defined. Skandia, for example, added a fifth perspective that focused on human resources.

In addition, Kaplan and Norton (2004) created a powerful, strategic mapping that companies can use to describe the relationship between intangible assets and the creation of value with a degree of unprecedented clarity and precision. The strategy map can be used to link the processes with the desired results, evaluate, measure and improve processes that are most critical to the company's success, and also help guide investments in human, information and organizational capital.

Today the BSC can be defined not only as a set of relevant performance measures, both at the strategic and at the operational level, but as a management tool that plays a key role in implementing the strategy, involving management processes such as planning, budgeting and development control. De Geuser et al. (2009), were able to see a positive impact on increasing the performance of the companies that use it, specifically reflected in the integration of processes and empowerment of the people.

To design a BSC, its authors Kaplan and Norton (2009), proposed a series of interviews and workshops in order to develop the necessary information that permits to use the tool effectively. However, one must mention that it is possible to identify other proposals for designing the BSC, among which it is recommended to check Göran Olve et al. (1999), Paul Nieven (2007) and Kovacevic and Reynoso (2010).

## 2.4 The sustainability in the control management systems.

Although sustainability has been discussed in the literature of control systems management (CSM) to describe the appearance of sustainability control systems (later SCS) as eco-control. This line of research focuses mainly on the influence of these systems in the environmental and

financial performance (Henri and Journault, 2009, 2010). Little is known about the nature and mode of integration between SCS and more traditional MCS (Durden, 2008); However, the SCS can contribute to an effective integration of the sustainability strategy only when they report to the MCSs and are not used as autonomous strategic tools (Burgelman, 1991;) Simons, 1995). If the latter occurs, the SCS can remain removed from business activities altogether, something which would make difficult, if not impossible to support the strategy reconfiguration.

In Table no. 1 (see Appendix), there are some sustainable control systems that have been proposed, identifying their names, authors, year of publication and features.

# 3.0 Diagnosis of the Chilean Wine Industry.

In Chile, the 351 companies in the wine industry (Foundation ProChile, 2012), stretching from the IV region of Coquimbo to the IX region of the Araucanía (<a href="http://www.winesofchile.org">http://www.winesofchile.org</a>, 2013); the largest productive areas being the regions of Maule, Libertador Bernardo O'Higgins, and the Metropolitan Region, that together represent 92.2% of the total of the wine produced in the country.(Foundation ProChile, 2013)

To learn of the industry and thus to identify whether there are the basis for the design of the SBSC, a field analysis will be carried out which is subdivided into four stages: sample selection, survey design, field work and data analysis.

# 3.1 Sample selected

In order to identify a representative sample of the Chilean wine industry, a sample was selected as the basis for 99 exporting vineyards in Chile that form the Wine Association of Chile (2012) mainly for two reasons. First, it had to be a good size sample representing 28% of the 351 wine companies existing in Chile (Fundación ProChile, 2012). While the second reason stems from the fact that, in order to be present in the international markets which are clearly more competitive, the wineries chosen for the sample should have a greater technological development and thus be more prone to having control management systems, as it is the case of the BSC.

#### 3.2 Survey design

The instrument designed to carry out exploratory research was a survey which was evaluated by professionals with experience in both the wine industry and the academic world. This allowed to make relevant improvements that were reached after two months of work, in terms of the best option to be used for this phase. Likewise, the survey was divided into two sections, the first concerning the background of the company, while the second consisted of analyzing with respect to the BSC, the conditions prevailing in the company for the design of the model, the presence of the BSC in the enterprise, the evaluation of the degree of implementation of the BSC and the effectiveness of the implemented BSC. The types of questions and their distribution are presented in Table no. 2 (see Appendix).

#### 3.3 Field work

Field work began reviewing the web pages of 99 wine companies selected, in order to identify any phone or mail through which you could communicate with them. Result of this work managed to generate a data base with 94 wine companies whose effective contacts were invited, through an e-mail, to take part in the research. To date, there have been 42 interviews done, representing 42% of the sample selected and 12% of the universe of vineyards in Chile. On the other hand, only two wineries decided to not participate in the

study, while the remaining 50 companies, after four attempts, still remain unanswered, which suggests that they are not interested in participating in the study.

Finally, the meetings were in person in the same vineyards, with an average duration of 50 minutes. These were endorsed, with physical record both the audio recording.

#### 3.4 Data analysis

Of the 42 interviews conducted, 64% of participants were the general manager or the manager of a specific area (line manager). 55% corresponds to large companies, which have an annual turnover exceeding \$ 4.5 million. With respect to the distribution of the labor force, as often happens in companies within the agricultural industry, 82 percent of employees are technical or non-professional staff.

Within the management systems most used by companies, stand with a 43% ISO 9001 and with 40% of the cases the sustainability code of Chile. The main reason why these companies have implemented these management systems was that they were part of their business strategy, rather than using them just to follow a fad (see Table 3, Appendix).

To enter the strategic analysis of enterprises, 83% of companies said to have a strategic plan formally established, which is formulated in 60% of cases in a participative manner, i.e. involving employees of various hierarchical levels, such as managerial, under-managerial and headquarters areas. The elements that are most present in the strategic plan are in 91% of cases "The mission" and 82% of the companies, both "The Vision", as "Strategic objectives".

Only 17% of the companies says not to possess a formally defined strategic plan, where the reason for this, in 50% of cases, is that the company is in stage of development, so it doesn't have time to do so. While in 25% of cases, the reason was that the company is so small and at the same time with a fairly flat structure, which does not need to have formalized strategic plan. Finally, in 25% of the remaining cases, the cause is that a formal plan rests on several grounds, being the most important the lack of management commitment and lack of knowledge for strategic planning.

We found cases of companies which used the BSC. 14% confirmed to have designed the BSC in their company, being some of their background:

- 83% corresponds to large companies.
- More than 50% of its production is exported.
- With about 67% of them having implemented management systems, having both ISO 9001 and the HACCP. In 50% of cases it has the sustainability code of the Vineyards of Chile. With regard to this last point, it must be mentioned that to analyze the overall result in 40% of cases they have been certified in the sustainability code, however focusing on the group of companies that have developed the WCC, this increases by 10%, which makes us think that companies that possess the BSC are more prone to certify the sustainability of their business.
- With respect to the main benefits that have been achieved thanks to the implementation of the BSC, there are three: planning improvements, improvements in Control and greater alignment (see Figure 1, Appendix).

Finally, the industry diagnosis reveals that the basis are set in order to develop the SBSC that this study proposes, given that most already have a strategic plan formally in place, which will form the basis of this. On the other hand, a 14% has the BSC, which shows the real possibility

of using this type of management system in Chile and the fact that it can be used as a basis for the SBSC.

# 4.0 Proposal of the CONCEPTUAL framework and methodology for designing the SBSC.

The basis for the SBSC is the Balanced Scorecard (BSC) (Kaplan and Norton, 1992), the evaluation of the performance of the day to day with the long term support. On the other hand, will help measure sustainability in its three dimensions: environmental, social and economic.

You might think that the BSC already considered the evaluation of sustainability, but not in a direct way, since internal processes perspective includes social and environmental issues (Kaplan and Norton, 2004). The difference will be that the SBSC will deem two additional perspectives: **social** and **environmental** (see Figure 2, Appendix), which is something that was nonexistent in prior approaches.

The steps that one should follow to design the SBSC are six:

1 ° step: preparation for design: A meeting with the management of the wine company is held, in order to explain the benefits and requirements that would be the development of this new system that will be generated. Additionally, the extent that the new system will have within the company must also be defined, i.e. which area will be chosen to begin with the design needs to be decided upon. Then there comes the need to build the team that will work on the design of the system and continue on thereafter.

2 nd step: establish or confirm the strategic focus of the company: This stage aims to confirm whether the company has a defined strategic focus in place or not, i.e. a mission, vision, strategic objectives and strategy. If the company has these guidelines, one is to check and confirm their understanding and acceptance of these. However, if the company does not have them already defined, they should build them and elaborate on their alignment before moving on to the next stage.

**Step 3: design of the Vine:** Using it as a basis upon which to build on the model further, the strategic map of the BSC model defines six structural system prospects. By way of global overview, the structural prospects are located at the top of the vine, from which the strategic objectives would be established, along with the strategic performance indicators therein, and from which the sub-indicators would stem.

Economic Outlook: Seeks to answer the following question: can we generate value for current and future generations?. The above, which would help maintain a reasonable quality of life, could be represented by the following strategic goals proposed generically by Kaplan and Norton (2004):

- Improved cost structure
- Increase the value for the customer
- Sustained business value

Customer perspective: To seek to respond to the following question: what is the value proposition for our clients?, so as to gain and maintain their loyalty. In order to propose objectives that represent the reality of the companies in the wine industry, the methodology was used to design the mission, proposed by Abell (1980), which is based on three questions: what are the customer needs being met?; Who is fulfilling them? and how are these needs being fulfilled?. The first of these questions will help identify the value proposition that the company

seeks to deliver.

The Mission of each company was obtained by logging onto its website, where out of 42 companies we were able to identify 24 missions, presenting the results in table N° 4 (see Appendix).

Finally, the objectives that will be proposed for this perspective, will be:

- Improve quality
- Achieve the best wines
- Achieving sustainability
- Providing excellent service

Internal process perspective: This perspective will answer the following question: How can we deliver the value proposition that the customer requests?. Knowing what the customer wants (value proposition) is to identify what should be done internally in order to meet this. The objectives will be proposed on the basis of those formulated by Kaplan and Norton (2004).

- Reduce the production costs
- Improve processes continuously
- Improve responsiveness of the process
- Improve the capacity used in fixed assets
- Identify new products
- Develop relationship with customers

Environmental perspective: This perspective seeks to answer the following question: How do I care for being a good neighbor-friendly?. Based on the research done by Christ and Burritt (2013), which identified the specific areas of the environmental sector faced by the companies in the wine industry, we propose the following strategic objectives:

- Increase the quality and use of water
- Improve the management of organic and inorganic solid waste
- Increase energy efficiency
- Reduce greenhouse gases
- Reduce the use of chemicals

Learning and development perspective: this perspective will respond the following question: can we give continuity to the business in the future?. This perspective covers such issues as intellectual capital, generating with it, on the basis of the works done by Kaplan and Norton (2004), the following objectives:

- Improve the work environment
- Reduce turnover
- Improve the level of employee satisfaction
- Increase the powers of employees (empowerment)
- Develop information systems

Social perspective: This perspective will help answer the following question: are we good neighbors with the community in which our businesses are developed. The objectives of this approach are presented in table N  $^{\circ}$  5 (Appendix).

Finally, once the objectives for each perspective are proposed they must be connected in a cause and effect relation.

**4 th step: proposal of critical success factors:** At this stage, for each of the above-mentioned strategic objectives, additional critical success factors are proposed, which are those elements that can only be words not numbers. These are intended to pave the way for the definition of further indicators that will be proposed. For example, if you think about the strategic objective of increasing earnings, two critical success factors could be income and cost.

**5 step: operationalization of the strategy**: In this step it is proposed to build the 3M matrix, so called due to the fact that it invites concrete proposals for each strategic objective: strategic performance indicators (measures), goals and means. For example, for the strategic objective increased business profitability, a measure could be: ROE, the goal could be an increase by 10% during the year 2014 and the environment would be the action(s) that would be proposed to support the achievement of this objective.

**Step 6: breakdown of the SBSC**: Finally, the system must be expanded and made pervasive down to the bottom of the organization within the wine company. To do so, one can use the management by objective methodology (Peter Drucker, 1954), in order to generate a waterfall effect to reach the operational level of the companies, thereby generating alignment with the strategic objectives already defined and consequently with the mission and vision of the vineyard. For example, having defined strategic objectives and their respective performance measures the operations manager of a business must meet with his/her direct subordinates and together they ought to define common goals. Based on these goals the performance measures ought to be proposed which assess their achievement. This process continues on until you reach the bottom of the organization.

#### 5.0 CONCLUSIONS

You can conclude that it is possible to propose the design of a Sustainable Balanced Scorecard (SBSC), allowing the company to achieve a management level that connects the day to day with the strategy and at the same time, it is able to measure the sustainability of the business.

On the other hand, on the basis of the Chilean wine industry diagnosis done, it can be concluded that 83% of them have a strategic plan formally established, which is key for the design of the proposed system. Additionally, a positive correlation exists between the BSC and sustainability management system, which identifies that companies that do have a BSC in place are more likely to have the sustainability code of wines of Chile, which could imply that both systems could coexist without problem. The above translates in positive signals for a future successful implementation of the SBSC.

That is why, as a way to continue with the validation of the proposed system, we validate the model through the design of a company which has already been contacted and which has confirmed its interest in participating.

# Appendix

**Table No 1: Sustainable Control Systems** 

Name	Authors	Publication	Features
		year	
Sustainability Scorecard	KPMG	2002	It considers the four BSC perspectives, in order to establish environmental performance, environmental information indicators and reporting system.
Sustainable scorecard (SBSC)	Dyllick and Schaltegger Figge et al.	2001	Designed as a tool to integrate and manage the value oriented to sustainability, whereas a 5th perspective, which considers environmental and social aspects.
Sustainable scorecard (SBS)	Arnold et al.	2001-2005	They propose 36 indicators of sustainability in 12 fields, in order to integrate the traditional perspective of the BSC in the dimensions of sustainability.
Balanced Scorecard to Implement Sustainability	Epstein and Wisner	2001	Incorporating to the BSC model, for each perspective, key success factors and KPI in the environmental and social dimensions
S/N	Bieker	2002	It suggests a cyclic structure of the BSC, where "Society" is added to the traditional model as a 5th perspective and also a way to provide further explanation of the cause - effect mechanisms amongst the five perspectives.
Sustainable added value	Figge and Hahn	2004	Proposed a monetary measure of the contribution of the Corporation to the achievement of sustainability
Seebalance ®	Schmidt et to the.	2005	The objective of this model is to quantify the sustainability of products and processes, based on the three pillars.
Sustainability performance measurement	Schaltegger and Wagner	2006	They propose a scheme, which manages, measures and communicates the sustainability of companies, through the link between Sustainability balanced Scorecard, accounting and communication of sustainability
Sustainability planning and Control	Bonacchi and Rinaldi	2007	Propose a multidimensional and multilevel model, which is based on a set of primary and secondary measures that are organized by using two management instruments:  Sustainability DartBoard and Sustainability Clover.
Sustainability balanced scorecards for environmental services	Dias-Sardinha et al.	2007	In their proposal the classic financial perspective is called "Triple Bottom Line Value Creation", including therein objectives in the economic, social and environmental dimensions.
Sustainability budgeting, Variance Analysis, Balanced Scorecard, Life-Cycle Costing and Activity Analysis	Roth	2008	For each of this cost management tools, joined you the environmental and social dimensions.
Sustainability balanced scorecard	Hubbard	2009	It proposes a set of measures grouped into six perspectives, all four of the BSC, plus one with a focus on environmental issues and one with a focus on social aspects. In addition, it proposes a sustainability index for the organization.

**Table No 2: Distribution of Survey Questions** 

Type of question	Quantity
Open	5
Multiple selection (Selection between alternatives)	12
Dichotomous (Only two possibilities Yes or No)	5
Scale psychometric (In this kind of question the respondent has to choose the answer using Likert rank)	14
Total Question	36

Table No 3: Most common management systems and the reason why it was implemented

Management system	Percentage	Reason	
0.00		Market demand	Strategy
ISO 9001	43%	39%	59%
Certificate of sustainability	40%	44%	65%
НАССР	40%	53%	59%
Carbon footprint	31%	46%	46%
Clean production agreement	31%	23%	69%

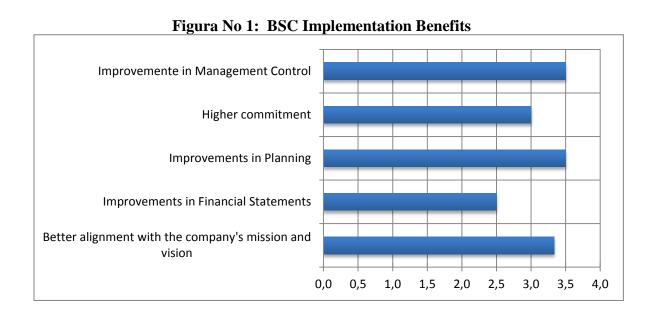


Figure No 2: Classic v/s New System

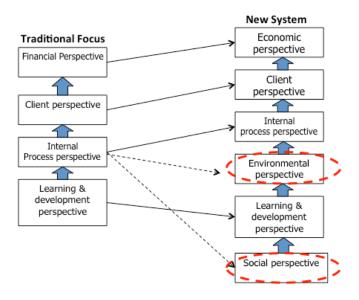


Table No 4: Proposal of value provided by Chilean wine companies

Value proposition	Percentage
Quality	88%
The best wines	25%
Sustainable	25%
Excellent service	8%
Development of employees	4%
Improve moments of pleasure to people	4%
Wines with identity	4%

**Table No 5: Objective Strategic Social perspective** 

Strategic objectives	Source
Ethics	Sustainability Code of Chile
Improving working conditions	Global Reporting Initiative (GRI), Sustainability code and Oshas 18001
Increase engagement with the Community	Sustainability Code of Chile
Healthy and safe consumption	Global Reporting Initiative (GRI) and Sustainability code
Respect for the privacy of the consumer	

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