

RESEARCH

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DESIGN OF THE STUDY OF A RESEARCH PROJECT: THE CASE OF THE OPERATIONAL BEHAVIOR OF THE VETERINARY SECTOR COMPANIES

DISEÑO DEL ESTUDIO DE UN PROYECTO DE INVESTIGACIÓN: EL CASO DEL COMPORTAMIENTO OPERATIVO DE LAS EMPRESAS DEL SECTOR VETERINARIO

Miguel Ángel Latorre Guillem¹: Catholic University of Valencia San Vicente Mártir. Spain. mangel.latorre@ucv.es  <https://orcid.org/0000-0003-0748-520X>

Sandra Alfonso Sargues: Catholic University of Valencia San Vicente Mártir. Spain. sandra.alfonso@ucv.es

M^a Cristina Muñoz García: Catholic University of Valencia San Vicente Mártir. Spain. cristina.munoz@ucv.es

ABSTRACT

The development of this paper that studies the behavior and performance of companies in the veterinary sector. The objective is to be a reference for other researchers in the actions that we consider suitable to follow in the design of a research project. Thus, the various complications that we have found in this question make us think of the interest that it may arouse in the rest of the researchers. Therefore, this paper aims to study, on the one hand, an improvement in the quality of veterinary care. And, on the other hand, achieve business benefits that incorporate economic stability in the activity of veterinary hospitals. For this purpose, this research project presents a line of action that starts from the review of the literature and the creation of a sample of the Spanish veterinary sector that allow the formulation of the necessary hypotheses to carry out this study. The methodology proposed in this paper uses the economic - financial information that comes from the annual accounts of the companies of the sample we made. This way, the paper pursues in its design to perform an analysis within the operational behavior of the sector. And present proposals for improvement in the business model of "San Vicente Mártir" veterinary hospital of the Catholic University of Valencia.

KEY WORDS: Research; Project; Veterinary; Operational Behavior; Business; Model; Clients

¹ **Miguel Ángel Latorre Guillem**: Professor Doctor-researcher, attached to the Faculty of Economic and Business Sciences, Catholic University of Valencia "San Vicente Mártir", Principal Investigator (IP) Research, Finance and Insurance
mangel.latorre@ucv.es.

RESUMEN

El desarrollo de este trabajo que estudia el comportamiento y desempeño de las empresas del sector veterinario. Se plantea como objetivo el ser una referencia para otros investigadores en las actuaciones que consideramos idóneas a seguir en el diseño de un proyecto de investigación. Así, las diversas complicaciones que hemos encontrado en esta cuestión nos hacen pensar en el interés que pueda despertar para el resto de investigadores. Por lo que, este trabajo persigue estudiar, por un lado, una mejora en la calidad de la atención veterinaria. Y, por otro lado, lograr beneficios empresariales que incorporen estabilidad económica en la actividad de los hospitales veterinarios. Para este fin, este proyecto de investigación presenta un línea de actuación que parte de la revisión de la literatura y la creación de una muestra del sector veterinario español que permiten la formulación de las hipótesis necesarias para realizar este estudio. La metodología que se propone en este trabajo, utiliza la información económica - financiera que procede de las cuentas anuales de las empresas de la muestra confeccionada. De esta manera, el trabajo persigue en su diseño realizar un análisis dentro del comportamiento operativo del sector. Y presentar propuestas de mejora en el modelo de negocio del hospital veterinario de la Universidad Católica de Valencia "San Vicente Mártir".

PALABRAS CLAVE: Investigación – Proyecto – Veterinaria – Comportamiento Operativo – Empresas – Modelo – Clientes

DESENHO DO ESTUDO DE UM PROJETO DE INVESTIGAÇÃO: O CASO DO COMPORTAMENTO OPERATIVO DAS EMPRESAS DO SETOR VETERINÁRIO

RESUME

O desenvolvimento deste trabalho que estuda o comportamento e desempenho das empresas do setor veterinário. Planteia-se como objetivo ser uma referência para outros investigadores nas atuações que consideramos idôneas a seguir no desenho de um projeto de investigação. Assim, as diversas complicações que encontramos nesta questão nos faz pensar no interesse que possa despertar para o resto de investigadores. No qual este trabalho persegue estudar, por um lado, uma melhora na qualidade da atenção veterinária. E, por outro, conseguir benefícios empresariais que incorporem estabilidade econômica na atividade dos hospitais veterinários. Para este fim, este projeto de investigação apresenta uma linha de atuação que parte da revisão da literatura e a criação de uma mostra do setor veterinário espanhol que permitem a formulação das hipóteses necessárias para realizar este estudo. A metodologia que se propõe, utiliza a informação econômica - financeira que procede das contas anuais das empresas desta mostra. Desta maneira, o trabalho persegue em seu desenho realizar uma análises dentro do comportamento operativo do setor. E apresentar propostas de melhora no modelo de negócio do hospital veterinário da Universidade Católica de Valencia "San Vicente Mártir".

PALAVRAS CHAVE: Investigação; Projeto; Veterinária; Comportamento operativo; Empresas; Modelo; Clientes.

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1. INTRODUCTION

Throughout the activity that takes place during the life of a company, there are many facts that are present and affect its value. The company is considered an organization where the people who belong to it pursue common objectives. Thus, the company is considered a structure composed of a human capital, goods (corporeal and incorporeal) and financial goods, which seek to market the sale of a product or the provision of a service in order to meet a need of the market to which its activity is oriented in exchange for a consideration. In this sense, workers must act with the objective of providing an adequate service to their clients. This way, the achievement of corporate profits is transferred to clients, investors, owners and the employees themselves.

One of the main questions that we pose in this paper is how to develop the research project. Thus, although there are no specific approaches in the veterinary sector, we found relevant information in previous papers to develop the design of qualitative research projects in [Galeano (2003) and Arias (2012)] the contributions in these papers are relevant in essential contents such as: concept of knowledge, science and scientific method. As well as general guidelines such as design variables, data collection instruments and basic sampling techniques. However, the design of a research project on the operational behavior of veterinary hospitals requires the development of a research project with its own identity, adapted to the particularities of the sector.

In this study, it is attractive to consider some of the most relevant aspects to favor decision making within the company. Therefore, the research framework of this line of work revolves around the operational behavior of the veterinary sector and the business model of "San Vicente Mártir" veterinary hospital of the Catholic University of Valencia. The veterinary sector in Spain, unlike the Anglo-Saxon countries, where the sector evolves towards greater competitive intensity, is not accompanied by an improvement in the management skills of the clinics. In this line of work, Serra and Velasco (2017) state that this situation comes, on the one hand, from the lack of formal management contents in the study plans. And, on the other hand, from the consultations, clinics and veterinary hospitals, the lack of a critical vision and the business vision necessary to invest in the business. The veterinary sector is a sector based on emotions, because few feelings are so strong that they link pets with humans. From the pet as a companion animal to its social purpose as a life support for people with disabilities such as the blind. Thus, in countries such as France and the United Kingdom, almost one in every two households has a companion animal. In Germany, more than 33% of households own a pet and, in

Spain, almost 40% of households own a pet. These data indicate that the annual expenditure on companion animals is representative. On the one hand, this expense comes from medical expenses (where veterinary services are included). And, on the other hand, non-medical expenses such as food and diets. All this makes us indicate that the veterinary sector has a great weight in the business activity in Europe and, of course, in Spain.

The interest that this subject arouses, concretized in previous works [McCarty (1995), Ruiz-Abad (2001, 2006), Mercader (2009), Coates *et al.* (2012), and Serra and Velasco (2017)), among others], the empirical works that research the factors that drive a company to make such a decision are relatively scarce in general and, in particular, require a greater depth of this analysis as it is intended to perform in this paper.

In Spain, the business model of the veterinary sector is structured in consultancy, clinic and hospital according to the paper of Ruiz-Abad (2001, 2006) and Serra y Velasco (2017). The company is oriented towards efficient management of its economic, technical and human resources, like any company that seeks a positive Net Present Value in an investment. Thus, it is expected that good practices in the management of service companies is correlated with good economic results. However, today there are several problems faced by companies dedicated to the veterinary sector, among others: an excess of centers, effects derived from the economic crisis, unfair competition, lack of specialization, working conditions, excesses of professionals of the sector, the appearance of franchises, the appearance of a more demanding client, the coverages contracted with the insurance companies, lack of quality, lack of ethics and deficient business management. The veterinary sector is a very fragmented sector with strong competition, with an excess of small business structures and a clear lack of medium and large structures, the profile of a poorly economically developed sector.

Currently, companies in this sector must consider in their policies of action, on the one hand, the economic, political and social changes that make the Spanish society more dynamic. And, on the other hand, the recent crisis of real and financial economy that affects the consumption capacity of our society. Thus, after the sector has experienced a strong growth of veterinary clinics in Spain, in the decade of the 80-90 as well as pets. The veterinary clinics, since the year 2000, have reached a ceiling of growth going from a growth of 20-25% per year to 2-3%. Therefore, the high competition among veterinary centers is supported by an offer of establishments that exceeds the demand of pet owners. Given this situation, veterinary centers are aware of the need to develop tools for market research and management that allow the economic viability of their business.

Thus, among the challenges facing veterinary hospitals today are among others: a lower growth in the number of new pets, change in the lifestyle of the owners, increase in the age of pets, greater demand of the client with the service offered and the attention received, increased competition due to the appearance of other hospital centers, the low degree of specialization of the professionals of the sector and limited knowledge in the application of business management techniques, for example, in the veterinary hospitals.

Another issue to be highlighted is management of the veterinary activity, mainly family-related in the case of veterinary consultations and clinics. According to the

Family Business Institute, there are five main challenges that family businesses have to overcome for their survival and competitiveness: generational continuity, increase in their size, professionalization, permanent technological and industrial innovation and internationalization. One of the main problems found by family businesses to meet these challenges is lack of sufficient financial resources, motivated in large part by the desire to maintain control of the company within the family. However, the contribution of resources to the business by current partners and obtaining funds in the credit market are not always possible or sufficient, since in most cases they are small companies with the consequent restrictions on access to credit.

Serra and Velasco (2017) present the strategies developed according to the different types of companies in the veterinary sector. Thus, for a Veterinary Hospital, they would be oriented towards defining a business model that would contemplate actions that would provide greater specialization of the services provided, promote policies that favor better management and commercialization of the business, greater loyalty of the current client, attend to the new services that their clients demand, reorganization of the work in the veterinary center, study the evolution of the size of the center and the competition. This way, it is necessary to generate sufficient economic resources to have the facilities and technology necessary for the development of the business.

The development of these actions of business management would make it possible to have a view of the management of the veterinary center, to know the profitability of the Veterinary Hospital as it would be measured and on which it depends. According to his paper, Mercader (2009) considers this work the economic valuation of the veterinary center through the evaluation of income by activity, income by areas of clinics, income areas of stores, gross margins by activity, structure of expenses, ratios of patients, seniority of personnel, human resources, customer service and investment in dissemination channels.

In this line of research, the negotiation with the different suppliers would be aimed at providing medicines and clinical material for daily use, in order to ensure the maintenance of the necessary stock. The suppliers that collaborate with the company will be those that provide greater quality in the service and products they offer, in the speed and efficiency in the distribution. The selection of the most suitable suppliers requires a market study and their specialization in some distribution field, offering the best service and price, according to the paper of González (2007).

From the financial perspective, we are in the best financial circumstances with a negative one-year Euribor. The Euribor had a decrease of 275% if we make the comparison from the beginning of the time horizon of the series from 2008 to 2017, Euribor-rates.eu (2016). This entails a financial saving very relevant for the companies that have contracted some of the different financing formulas that the market offers. Thus, an improvement in financing possibilities will favor the creation of value, Casanovas and Bertrán (2013). In this line, the performance of the European Central Bank for several years against the fall in prices leads to the development of an expansive economic policy. In this situation, we must highlight the progressive reduction of interest rates, reaching levels close to zero percent, favoring cheaper loans. The pressure that the banking system endures translates into reducing its profit margins on the one hand by reducing interest rates and, on the

other hand, the increase in requirements for the granting of capital from European regulators. In an environment with a clear downward trend in the Euribor, as can be seen in its value in 2017, companies that have contracted a loan would experience significant financial savings in their financial costs. However, the financial crisis that globally reduces the production process in the European Union and Spain is accompanied by a reduction in the wealth of countries and an increase in unemployment. In addition, the delay of households in the payment of debts incurred must be considered.

Currently, Veterinary Hospitals develop their activity, on the one hand, through academic activity in collaboration with the Faculty of Veterinary Medicine. The center is staffed by professors of the aforementioned faculty, and in it the undergraduate and graduate students carry out their internships. In addition to offering continuous training to health professionals. They also become the reference clinical activity for owners and veterinary professionals. As well as, the research activity, both internal and the one that is provided to external entities in the form of use of hospital facilities or services. In this line, it is important to be participants in its social mission of service to society, joining solidarity initiatives such as collaboration with different animal protectors.

This paper developed the guidelines to be followed by a research project and specifically about "San Vicente Mártir" Veterinary Hospital of the Catholic University of Valencia, this is a teaching center that works exclusively as a Reference Hospital for veterinarians and emergency services 24h the 365 days of the year. This hospital has qualified staff with experience in each of the specialties offered to provide pets with the best treatment and the best quality. Thus, the following specialties should be highlighted: Anesthesiology and analgesia, Cardiology and Respiratory System, Laparoscopic Surgery, Soft tissue surgery, Dermatology, Diagnostic Imaging, Internal Medicine, Neurology and Neurosurgery and Orthopedics and Traumatology.

With all this, veterinary hospitals face a relationship of challenges in the environment and in the market that invites us to rethink their current situation and redefine the strategies adopted in the services provided to their clients. In this line of action, if veterinary hospitals want to remain competitive, they must respond and adapt their structures and services to the demands of the environment and of their clients, which is increasingly changing and more demanding.

2. OBJECTIVES

In recent years, the variables that affect the company are becoming more complex: clients are becoming less faithful and more demanding, they demand a service tailored to their needs and with quality, since they have a wide range of very competitive prices, facilities that have the latest technological advances, greater flexibility in providing the service, and home and hospital assistance 365 days a year. This complex reality implies that management must be interested in each and every one of the processes that takes place within the company in order to determine its cost, the sale price and the profitability of any service demanded by its clients.

The objectives pursued by this paper are, on the one hand, a study of the operational behavior of companies dedicated to the veterinary sector. And, on the other hand, the study of the business model of "San Vicente Mártir" Veterinary

Hospital of the Catholic University of Valencia, according to the competitive conditions of the environment. The design of this research project takes considerations that seek to formulate a business model according to market trends and the competitive scenario of the veterinary sector. Unlike previous papers, lines of action will be designed through previously conducted market research and the results obtained by analyzing the operational behavior of companies in the veterinary sector.

This way, the interest that this project arouses manifests, on the one hand, to define the current situation of the sector and its future evolution through the market research carried out in this paper. And, on the other hand, in identifying the factors and processes that favor good business management of "San Vicente Mártir" veterinary hospital of the Catholic University of Valencia through the surveys and operational study of the companies that make up the veterinary sector (consultations, clinics and hospitals). The situation of the existing financial crisis at a global level requires that management have an information system for each of the services provided, in order to make decisions and be able to set more competitive prices. Alemán and Escudero (2007) present in their paper the importance of the use of market analysis techniques, marketing strategies, their planning and execution. Thus, in this paper, the company needs a new information system that addresses the changes in the environment faced by the Veterinary Hospital due to the increasing complexity of the current competitive environment, in the prices and offers to obtain clients. In addition, it is necessary to know the profitability of the veterinary hospital as we can measure it and on what it depends. On the other hand, the policies aimed at how to organize, motivate, evaluate and reward the human team and the actions aimed at customer service.

Also in this paper, the following actions of interest are contemplated: Review and method of obtaining prices for services. Review and method of obtaining prices for services to non-profit entities: social service. Review and method of obtaining prices for research services to external entities: ex. CAT to other universities. Review and control of processes: Standardization of review of services performed and collection process and workflow protocols: establish routes and more efficient ways.

With all this, the value that knowledge has as a factor of development in contemporary societies has made university-company relations acquire a particularly important role. This way, this research project fosters this type of linkage through the transfer of research results within this framework of action between the University and the company. In this case, the study of "San Vicente Mártir" Veterinary Hospital of the Catholic University of Valencia aims to improve productive management, Jurado *et al.* (2011).

Based on the current state of research on the operational behavior of companies in the veterinary sector and its relationship with the analysis of business management. The hypotheses to be contrasted are derived from the objectives stated above:

(Hypothesis 1): Veterinary hospitals have greater access to credit as compared to other companies in the veterinary sector such as consultations and clinics

(Hypothesis 2): The development of new veterinary specialties increases the quality of the service offering, resulting in an increase in clients, billing and profits.

(Hypothesis 3): The differentiation in jobs and the implementation of process control policies increases the degree of customer satisfaction in the service provided.

(Hypothesis 4): The purchasing power of pet owners is not decisive when hiring veterinary services.

(Hypothesis 5): The social commitment of veterinary hospitals favors the creation of value and is perceived positively by the client.

(Hypothesis 6): The establishment of management indicators through the evaluation of income by activity, income by areas of clinics, income, areas of stores, gross margins by activity, structure of expenses, patient ratios, seniority of personnel, human resources, customer service and investment in marketing provide necessary information for decision making within management of companies in the veterinary sector.

(Hypothesis 7): The atomization of veterinary centers is a reality in urban centers with a larger number of inhabitants would imply a greater diversification in the supply of services and prices.

(Hypothesis 8): The geographical proximity to universities that teach the degree in veterinary medicine will determine the way in which the human resources plan should be proposed and would have a positive impact on the effort made to attract professionals. And, on the other hand, the new curricula of the veterinary faculties formally incorporate content in business management.

3. METHODOLOGY

The methodology used will be aimed at improving the business result of "San Vicente Mártir" Veterinary Hospital of the Catholic University of Valencia within the framework of action of the companies in the sector. To this end, we prepared a sample that will be integrated by companies in the sector: consultations, clinics and veterinary hospitals. The data can be found in the query made in the Iberian Balance Sheet Analysis System (SABI) database. From the result of the consultation, it will be possible to obtain information from the annual accounts, in order to carry out a comparative analysis of the sector in comparison with the Veterinary Hospital UCV, the object of this study. To this end, economic-financial information is used to measure the operating behavior [Amat (2008), Mallo *et al.* (2008) and Martínez (2012)]. The ratios used will be: (ROE: Return on Shareholders' Funds, ROA: Return on Total Assets, ROS: Return on Sales, SALEFF: Sales Efficiencies, INEFF: Earnings Efficiency, TDTA: Total Debt and Total Assets, CACL: Current assets and current

liabilities) they are obtained from the Database (Iberian Balance Sheet Analysis System -SABI).

Thus, for our results to be comparable with those obtained in the literature, we use a similar methodology and test the same hypotheses that we propose, as can be seen from the work of Megginson *et al.* (1994), Latorre and Farinos (2015) and other related documents. A common way to measure profitability is by using the following three measures: return on sales (ROS), return on assets (ROA) and return on equity (ROE), which refer to income before interest and taxes (EBIT) Assets and equity. A similar procedure is used to calculate efficiency, it is sales efficiency (SALEFF) and income efficiency (INEFF). Therefore, it is necessary to calculate the actual sales and earnings before interest and taxes, respectively. On the other hand, we use employment, leverage and liquidity ratios to measure, the total number of jobs, the indebtedness capacity and the capacity to generate treasury of the company.

The study sample will be classified through three tertiles corresponding to the high, medium and low tertile at a rate of 30%, 40% and 30%, respectively, according to the size of the companies and other variables that are considered of interest. This way, tertile one is the smallest proportion and tertile three the largest in the relationship. The sample will be analyzed from 2003 to 2017. Including the number of cases studied in all panels until moments before and after the economic crisis. This way, so as to test any difference in the means between the groups, the t-statistic standard is used. The nonparametric range contrast test with Wilkinson's sign is used to test differences in medians between groups [(Martin-Pliego, 2004) and (Pliego *et al.*, 2005)]. In turn, the Panels will be divided among other considered indicators, for the information provided in this study by the Veterinary Hospitals, such as number of employees, total assets, sales and financial income.

The use of the comparison of the performance that is based on the median is more appropriate in our context since, as Barber and Lyon (1996) show, the use of the median can eliminate the potential bias in the inference based on the average due to the existence of extreme cases. In addition, our variables of interest are ratios that have an asymmetric behavior in general, so the use of the median is also more appropriate to contrast changes in performance.

In this line of work, a survey process will be developed to detect new services that can be offered to clients and their level of satisfaction. According to the work of Padilla *et al.* (1998) and Anguita *et al.* (2003) the technique of the survey is widely used as a research procedure, since it makes it possible to obtain and elaborate data quickly and efficiently. Thus, through the survey, we can identify potential conflicts, favor the design of research, formulate the hypotheses, define the variables, select the sample, design the questionnaire, organize the fieldwork, obtain and treat data

So, through the survey, you can make inquiries about disease prevention plans, specific plans for pets, exotic animal consultations, diagnosis and less invasive surgeries, new technologies available, therapies and alternative treatments: homeopathies and acupuncture, specialization in new areas: oncology, anesthesia and resuscitation, ophthalmology and flexible schedules. Finally, the analysis of the data and interpretation of the results can be incorporated as a relevant element.

Another aspect that we must take into account is to carry out a study of the market of veterinary services, it would be convenient to highlight some microeconomic and macroeconomic aspects that several authors consider in their

works [Mochón (2009), Mankiv (2012), Pindyck (2013) and Krugman and Wells (2013)] and that could be relevant.

Regarding the microeconomic aspects, we could highlight, following the main manuals in this regard, issues that have to do with:

What kind of price elasticity do veterinary services have? If it is a question of services with low price elasticity, it will mean that percentage changes in the prices of these services would originate changes in their amount of demand, but of smaller percentage. This would allow us to observe the expected behavior of the demand when considering variations in prices.

What kind of income elasticity do the veterinary services have? If they have high price elasticity, it will be considered a luxury good and, if it is low, it could be considered a service of first necessity. This will allow us to observe the expected change in the demand when facing a modification in the income of those demanding the veterinary services.

In what type of market are the veterinary services? Are they a market of perfect competition? In this case, the variable to be taken into account will be the price, as the competition among companies will be carried out around this variable. If, on the other hand, we could differentiate our services from the competition, we would find ourselves facing a market of monopolistic competition, with which the differentiation of the service should be the most relevant objective. If we observe that the strategic behavior among companies, that is, decision-making, is based on the assumption of the behavior of the rivals, we must make assumptions of behavior when facing the actions of the rivals. Are there large service providers, which supply a high percentage of the market? The assumptions of behavior will be different depending on the answers to these questions.

Regarding the macroeconomic aspects, it would be relevant to observe the evolution of the main macroeconomic variables. We could consider the evolution of the income of Spanish households in recent years and see if there is a correlation between the evolution of this variable and the evolution of the demand for veterinary services.

We could also observe the survey of family budgets and other data offered by the INE and see if there are differences in their evolution for different segments of the population, which could have different behaviors within the demand for veterinary services.

A relevant aspect would be to see, for example, the incorporation of pets in the homes of people over 65 years of age. In an increasingly busy society, our elders opt for the acquisition of pets that keep them company. This data could have consequences in the economic sectors that provide services for pets, including veterinary services. The macroeconomic and population data predict growth in the population pyramids of those over 65 years of age. If the elders opt for the acquisition of pets, it will be a data to take into account.

To carry out the work, a series of common indicators in the sector that make it possible to analyze the evolution of the Veterinary Hospital UCV and facilitate decision-making in four areas such as clients, economic-financial, market and growth are considered in the time horizon of the study. The list of indicators that are oriented to management of results are: income by activity, income by areas of clinic and store, gross margins by activity, structure of expenses, ratio of patients, seniority

of personnel, human resources, patient care and degree of investment in communication policies.

Thus, the different stages that we consider within the implementation schedule refer to the definition of the research project, coordination and organization, review of the literature and the formulation of the hypotheses, design of the study with the preparation of the sample and the database, presentation of the results in line with the methodology used and contrast of the hypotheses presented in the paper. Finally, discussion of the work and the conclusions we reached, preparation of the presentation of papers in congresses, sending the paper to indexed journal and preparation of the report of the minutes of the research project

Table 1
Research Project Implementation Schedule

PLAN DE TRABAJO	CRONOGRAMA CURSO ACADÉMICO 2017-2018													
	2017							2018						
	JUN	JUL	AGO	SEP	OCT	NOV	DIC	ENE	FEB	MAR	ABR	MAY	JUN	JUL
1 DEFINICIÓN PROYECTO DE INGESTIGACIÓN														
2 COORDINACION Y ORGANIZACIÓN														
3 REVISIÓN LITERATURA y FORMULACIÓN HIPÓTESIS														
4 DISEÑO ESTUDIO: METODOLOGÍA														
5 DISEÑO ESTUDIO: MUESTRA Y BASE DE DATOS														
6 RESULTADOS Y CONTRASTE DE HIPÓTESIS														
7 DISCUSIÓN Y CONCLUSIONES														
9 PRESENTACIÓN DE PONENCIAS EN CONGRESOS														
11 ENVIO PAPER A REVISTA INDEXADA														
12 ELABORACIÓN DE INFORME														

Source: Self elaboration

In Table 2 we present the items that would integrate the research project and that would meet the needs of expenses and that would be grouped into bibliographic material, expendable material and travel and per diems (600 euros), review of languages in scientific articles (250 euros) and participation in scientific congresses (2,450 euros). The total expenditure proposal would amount to 3,000 Euros.

Table 2
Research Project Budget

Budget	Concept	Amount
Own materials for the development of the project	- Bibliographic material	300
	- Fungible material	100
	- Displacement and Diets	200

Hiring of external services	- Review of languages for publication of scientific articles	250
Participation in Scientific Congresses	- Registration to scientific congresses	1.350
	- Travel to Congresses	800
	Total	3.000

Source Self elaboration

4. DISCUSSION

The work plan begins with a previous phase of preparation of the plan or Project, with all the researchers participating in the Research Project involved in its configuration. In addition, once proof of approval of the project is obtained, we proceed with the definition of Coordination and Organization tasks that will correspond to the Principal researcher (IP), this process includes the months of June and July of 2017. Below are the following phases that make up the Work Plan of this Research Project:

First phase. Duration: 4 months

The first phase is integrated into three tasks: Definition of the Research Project, Coordination and Organization and Review of Literature

1. For the task of defining the Research Project so that it can be done with the utmost rigor, the group has specialists in this matter. Thus, the research team is composed of 1 professor of macro- and micro-economy who will analyze the environment, 1 doctor professor in accounting and management control who will analyze the accounting and financial processes, 1 doctor professor accredited in Corporate Finance in charge of reviewing strategic processes and project coordination. In addition, two doctor professors accredited in veterinary (with 1 six-year period each one) will be in charge of working with the rest of the team by giving support in review of strategies, identification of necessity and redefinition of processes proper to the veterinary field. Although the conception of this research project starts months prior to this report, the computation that is assigned within the time horizon of the Schedule is 1 month.
2. Coordination and Organization, in this task, the functions that are pursued to give coherence in the development of the research lines within the research project will be defined. This task will be assumed by the Principal Researcher (PI). In addition, the Principal Researcher will be responsible for holding meetings with the College of Veterinarians of Valencia and with the management board of "San Vicente Mártir" Veterinary Hospital of the Catholic University of Valencia. Duration: 1 month, being the scope of duration throughout the validity of the project research.
3. Review of Literature and Formulation of Hypotheses: in the development of this task, a review of the literature of the veterinary sector will be made, from the macro- and micro-economic scope, of the business management processes from the perspective of strategy, marketing, accounting, corporate

finance and social behavior. From here, hypotheses are formulated according to the review of the literature. We must consider that, as we develop research, it is possible to incorporate new hypotheses and reformulate some of those already defined by the evidence that is observed in the review of previous papers and the results obtained from the surveys we carried out.
Duration: 2 months

People involved: given the collective nature of this phase, all members will be participants.

Second stage. Duration: 3 months

The second phase is composed of two tasks:

1. Study Design: Methodology. Throughout this period of time, we present how we are going to empirically contrast the hypotheses stated above. For this purpose, the use of the median-based performance comparison is more appropriate in our context since, as shown by Barber and Lyon (1996), the use of the median can eliminate the potential bias in inference based on the average due to the existence of extreme cases. Duration: 1 month.
2. Study Design: Preparation of Sample and Database. In this task, the construction of the sample of companies is carried out, according to the variables considered most relevant in the study. This way, we elaborate a sample that will be integrated by the companies of the veterinary sector and that we can see from the query made in the database of Iberian Balance Sheet Analysis System (SABI). In addition to the development of corresponding surveys to study the new services to be provided to clients and to study the competition. Therefore, the working group will meet to define the market research process from the preparation of the questionnaire, the process of carrying out the survey and the statistical treatment of the collected information. Duration: 2 months

People involved: for the same reason, all the members of the group will participate in this second phase.

Third phase. Duration 2 months

The tasks in this phase consist of the presentation of the results and the contrast of hypotheses formulated according to the literature review.

1. Thus, from the sample of Veterinary Hospital companies, from the surveys carried out and the methodology used. The results corresponding to the empirical testing of the hypotheses presented in this paper are presented in this phase. This way, the use of the methodology is oriented towards obtaining robust results regarding the significance of the contracted hypotheses. And, on the other hand, another task will refer to the conclusions we obtained.
2. Thus the pieces of evidence we got would be in line with what any basic manual in business finance teaches, that is, that the main task within the company is to make decisions that maximize the value of the company. However, when performing a deeper analysis, it is considered that the

business results are conditioned by a series of factors that positively or negatively affect the generation of value within the organization. With all this, the conclusions, limitations and future lines of research will be developed.

People involved: given the collective nature of this phase, all members will be participants.

Fourth phase. Duration: 4 months

The fourth phase is divided into two parts. Regarding the dissemination of the results of work, the research group will follow the lines of research. In a *first stage*, we will publish the working documents and circulate preliminary versions of the results. These documents will be discussed in seminar sessions and presented at national and international conferences and scientific meetings. Once the content of these studies has been improved with the introduction of the suggestions we receive, they will be presented, *second stage*, in national and international journals.

Thus, the following steps will be considered in the dissemination actions:

1. Presentation of papers in scientific congresses, preparation of scientific papers to be shared with the scientific community in congresses related to the area of study.
2. Proposal to organize a seminar in the department, to publicize the results of research.
3. Review of the article by a native professional specialized in translation and proofreading, in the area of business management, in English.
4. Complete review of the article by the research group
5. Submission of the article and assessment by the target journal, with priority being sent to indexed journals with an impact factor from the first to the second quartiles, more suited to the developed line of research.
6. The results obtained in the studies will be presented at the following conferences: Global IBFR, Encounter of Applied Economics, Finance Forum, European Financial Management Association (EFMA) and Iberian-Italian Congress of Financial, among others. Afterwards, the studies obtained during the development of the project will be sent for publication to the best international journals in the field.

People involved: all the members of the project.

Fifth phase. Duration: 1 month

In the fifth phase, it is planned to hold a meeting with the Veterinary College of Valencia, to publicize the results of research and make proposals for implementation in veterinary hospitals, transferring the conclusions to the Spanish Veterinary Organization. In addition, a final project report prepared by the Principal researcher (PI) will be presented to the heads of the OTRI.

People involved: mainly the Principal researcher (IP) but with the participation of all members of the project.

5. CONCLUSIONS

The development of this research project is oriented towards the design of the study of the evolution of the veterinary sector within a market with high competition. In this paper, the evolution of the productive model of the veterinary hospital sector is suggested through the hypotheses presented herein and the elaboration of the sample prepared for this purpose. In addition, we study the possibility of presenting proposals for operational improvement of "San Vicente Mártir" veterinary hospital of the Catholic University of Valencia. Thus, the paper considers clear the trend in this sector that is marked by a negative evolution that is manifested in the decrease in smaller clinics, which would last as proximity clinics for basic services with the increase in the number of medium clinics, with a high number of services, more specialized and more professional. And, finally, the presence of highly equipped reference veterinary hospitals and highly specialized professionals. With all this, the design of this research project is completed with the phases defined in the work plan that mark the time horizon that we believe this type of work should follow and that favors learning how to develop quantitative research projects, in this so particular sector.

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6. REFERENCES

- Alemán, J. L. M., & Escudero, A. I. R. (2007). *Estrategias de marketing: un enfoque basado en el proceso de dirección*. España: ESIC Editorial.
- Amat, O. (2008). *Análisis de Balances, claves para elaborar un análisis de las cuentas anuales*. Barcelona: Editorial Profit
- Anguita, J. C., Labrador, J. R., & Campos, J. D. (2003). La encuesta como técnica de investigación. Elaboración de cuestionarios y tratamiento estadístico de los datos (I). *Atención primaria*, 31(8), 527-538.
- Arias, F. G. (2012). *El Proyecto de Investigación. Introducción a la metodología científica*.
- Barber, B.M. y J.D. Lyon (1997). Detecting long_run abnormal stock returns: the empirical power and specification of test statistics. *Journal of Financial Economics* 43, 341–372.
- Casanovas, M., & Bertrán, J. (2013). *La Financiación de la Empresa. Como optimizar las decisiones de financiación para crear valor*. Barcelona: Editorial Profit
- Coates, C. R., Geller, J., CVP, C., Miller, L., & Zawistowski, S. (2012). *Veterinary practice management*.
- Cubillo, J. M., & Cerviño, J. (2008). *Marketing sectorial*. España: ESIC Editorial.
- Euribor-rates.eu (2016). *Tipos Euribor por año*. Recuperado de <http://es.euribor-rates.eu/euribor-hipoteca.asp>

- Feliu, V. M. R., Aznar, C. T., & Luján, Y. B. (2011). Aproximación al modelo de costes y gestión basado en las actividades: estudio de un caso en una pyme. *RIGC. VIX(17)*.
- Freeman, R. N. (1987). The association between accounting earnings and security returns for large and small firms. *Journal of Accounting and Economics, 9(2)*, 195-228.
- Galeano, M. E. (2003). *Diseño de proyectos en la investigación cualitativa*. Universidad Eafit.
- González, B. N. (2007). Monta tu clínica veterinaria paso a paso. *Revista Complutense de Ciencias Veterinarias, 2*, 517-525.
- Jimenez, J.L., Pérez, C. y De La Torre, A. (2012). *Dirección Financiera de la Empresa. Teoría y práctica*. Madrid: Editorial Pirámide.
- Jurado, J. M. V., Henríquez, L. A. M., Castro-Martínez, E. L. E. N. A., & de Lucio, I. F. (2011). Las relaciones universidad-empresa: tendencias y desafíos en el marco del Espacio Iberoamericano del Conocimiento. *Revista Iberoamericana de Educación, 57*, 109-124.
- Krugman P. y Wells, R. (2013). *Microeconomía*. Madrid: Editorial Reverte
- Latorre, M., & Farinos, J. (2015). Ethical Behaviour and Operating Performance of Insurance Broker Firms. *Journal of International Business and Economics, 3(1)*, 44-51.
- McCarty, J. B. (1995). *Basic guide to veterinary hospital management (No. SF 604.5. M33 1995)*. AAH Press.
- Mallo, C., Rodríguez, C. M., & Pulido, A. (2008). *Contabilidad financiera. Un enfoque actual*. Madrid: Editorial Paraninfo.
- Martín Pliego, F. J. (2004). *Introducción a la Estadística Económica y Empresarial: teoría y práctica*. Madrid: Editorial Thomson.
- Martín-Pliego, F. J., & Ruiz-Maya, L. (2005). *Fundamentos de inferencia estadística*. Madrid: Editorial Paraninfo.
- Martínez, E. (2012). *Finanzas para directivos*. Madrid: Editorial Mc Graw Hill.
- Megginson, W.L., Nash, R.C. and van Randenborgh, M. (1994). The financial and operating performance of newly privatized firms: An international empirical analysis. *Journal of Finance, 49*, 403–452.
- Mercader, P. (2009). *Soluciones de gestión para clínicas veterinarias (No. V023 MERs)*. España: Servet editorial-Grupo Asís Biomedica SL.
- Mochón Morcillo, F. (2009). *Economía: Teoría y Política*. España: Editorial MCGRAW-HILL / Interamericana de España, S.A.
- Gregory Mankiv, N. (2012). *Principios de Economía*. España: Editorial S.A. Ediciones Paraninfo
- Padilla, J., & González, A. (1998). *Investigar mediante encuestas*. Madrid: Editorial Síntesis.
- Partal, A., Moreno, F., Cano M. y P. Gómez (2012). *Dirección Financiera de la Empresa*. Madrid: Editorial Pirámide.
- Pindyck, R. (2013). *Microeconomía*. Prentice Hall/Pearson.
- Pliego, F. J. M., Lorenzo, J. M. M., & Pérez, L. R. M. (2005). *Problemas de inferencia estadística*. Madrid: Editorial Paraninfo.
- Ruiz-Abad, L. (2006). *Monografía: Gestión Empresarial y marketing de las clínicas veterinarias*. 78, Número monográfico.

Ruiz-Abad, L.; Calahorra, FJ; Paz, A; Rouco, PF; Rouco, A. (2001). *La profesión veterinaria en el siglo XXI: un estudio de mercado*. Madrid: Consejo General de Colegios Veterinarios de España.

Serra, J. C., & Velasco, A. (2017). *Todo lo que debe saber sobre Gestión Clínica Veterinaria: El libro de gestión imprescindible para los profesionales de la veterinaria*. España: Editorial Profit.

AUTHORS

Miguel Ángel Latorre Guillem

Accredited Doctor in the area of corporate finance of the Catholic University of Valencia "San Vicente Mártir" where he develops his activity as a teacher and researcher in the Accounting, Finance and Management Control Department of the Faculty of Economic and Business Sciences. He also has teaching experience in other institutions such as the Faculty of Economics of the University of Valencia. The research activity presents publications in the area of Corporate Finance and teaching innovation where he belongs as a Principal Investigator (IP) in the Finance and Insurance Research Group.

<https://orcid.org/0000-0003-0748-520X>

Sandra Alfonso Sargues

Doctor of the Catholic University of Valencia "San Vicente Mártir" where she works as a teacher and researcher in the Accounting, Finance and Management Control department of the Faculty of Economic and Business Sciences. The research activity focuses on the economic, financial and efficiency analysis of the Autonomous Communities.

M^a Cristina García Muñoz

Professor of the Catholic University of Valencia "San Vicente Mártir" where she works as a teacher and researcher in the Department of Economics and Accounting, Finance and Management Control of the Faculty of Economic and Business Sciences. He also has teaching experience in other institutions such as the Faculty of Economics of the University of Valencia. The research activity focuses on the barriers that companies encounter in international public procurement.