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HOW COMPANIES INVOLVED IN THE EQUINE INDUSTRY OF WESTERN EUROPEAN COUNTRIES ARE MANAGING THEIR FINANCIAL RISKS

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ABSTRACT

Risk, which is anything that threatens a company's ability to achieve its financial goals, is an inescapable part of the business. It is vital to incorporate a reliable and efficient risk management system into each organization to minimize its consequences. The thesis provides an overview of equine-related businesses' major financial risks in Western European areas and observes the difference in risk management activities correlated to the company's size. The author uses a qualitative approach as the most suitable methodology in this paper by performing an extended literature review and applying semi-structured interviews with four interviewees holding roles of founders, CEOs, top managers of the stables and equestrian centers operating in Western-European countries, particularly in Belgium and Holland. The paper's findings indicate six major risks, including those that escalated during the COVID-19 pandemic, and describe strategies applied by top-managers of equine-related enterprises. Results show that all companies have identified the similar risks faced by operating in the equine industry and applied similar strategies to manage the risks. Nevertheless, the perception of the risk management system differs regarding the company's size.

Keywords: risk management, equine industry, financial risks, risk management strategies

INTRODUCTION

Equine-related businesses are a huge part of the agricultural industry, including several activities involving a wide range of horse usage. Agricultural business organizations are subject to more significant risks than other business sectors, considering that agricultural products and services are connected to natural processes, biological assets, plant and animal diseases. This thesis aims to define the main financial risks faced by equine-related businesses in Western European companies and observe the difference in performing risk management activities correlated to the company's size, answering the following questions:

1. What are the relevant financial risks faced in the equine industry in Western-European countries?
2. What are the effective risk-management strategies used by equine-related businesses in Western-European countries?
3. How does the size of the company influence the risk management strategies in the equine industry in Western-European countries?

Additionally, the whole topic of risk management in an equine industry could be viewed as underestimated; as to the author's knowledge, there is a lack of modern research and studies investigated in a particular field. The choice of a specific area of Western European countries is motivated by the high density of equine businesses located in the region, explained by higher market demand. Considering that this research aims to explore and describe people's subjective experiences, this paper's best appropriate methodology to reach the earlier set goals is a qualitative approach. The thesis consists of five chapters. The first and second chapters explain major concepts and elements that support the relevant theory for a deep understanding of a research's subject. The third chapter represents the thesis's methodological choice, including justification and a detailed description of the research design and data collection methods. Followed by a presentation of the detailed information about respondents. The empirical part is discussed in the fourth chapter. This chapter gives an overview of the equine-related businesses' perception and organization of risk management activities. The final and fifth chapter presents the research's major conclusions and presents limitations and suggestions for future research presented in the last chapter.

1. KEY CONCEPTS OF FINANCIAL RISK MANAGEMENT

In this chapter, major concepts and elements that underpin the relevant theory are introduced. It provides an overview of the theoretical considerations about financial risk management definition, history, and origin, followed by risk management strategies description and risk categorization. Moreover, the equine industry is introduced with information about its economic role, size, and structure. At the end of the theoretical chapter, the author presents a review of accounting in equine-related companies.

1.1. History and origin of modern risk management

Although risk management activities can be viewed as a relatively recent corporate function, they are not in many cases. According to Horcher (2005), forward contracts were used as far back as the Middle Ages by Flemish traders in the twelfth century, while the Dojima rice futures market was established in Osaka's commerce center in 1688. Registered rice traders could sell futures in advance of the harvest if lower prices were expected to appear, oppositely if the poor harvest has been predicted with high prices - they could buy futures contracts instead. Nevertheless, according to several sources, modern risk management's origin is dated 1955-1964 (Crockford, 1982; Harrington and Niehaus, 2003; Williams and Heins, 1995). Mehr and Hedges (1963) and Williams and Hems (1964) were the first to publish academic books on the subject. For a long time, risk management activities were limited by market insurance's simple usage to cover the company's accident-related losses. More detailed studies of risk management began after World War II (Dionne, 2013). The market insurances began to be viewed as an expensive and insufficient method for protecting from pure risks, resulting in the appearance of alternative risk management methods. Dionne (2013) states that the 1980s were when financial companies started developing internal risk management models, and international risk regulation practices began. The financial sector's risk management priority started to be recognized by many institutions, including banks, insurers, and non-financial entities. Correspondingly, governance of risk management became essential, and integrated risk management was introduced. The concept of risk management became more widespread.

1.2. The definition, process, and purpose of risk management in companies

Risk management is a process of assessing risk and acting in such a manner or prescribing policies and procedures to avoid or minimize loss associated with such risk. The risk management process involves both internal and external analysis. Horcher (2005) summarizes the process of risk management as follows:

- identification and prioritization of critical financial risks;

- determination and appropriation of a level of risk tolerance;

- implementation of the risk management strategy under the policy;

- measuring, reporting, monitoring, and refining as needed.

The risk management process starts with identifying and prioritizing the company's financial risks and measuring its relevance. It may be essential to analyze its business model, its products, target market, suppliers, competitors, and industry trends. Moreover, the stakeholders' opinion and their objectives towards tolerance for the risk are essential to count. A comprehensible understanding of the risks, appropriate strategies, and prescribing policies and procedures should be developed to avoid or minimize loss associated with such risk. Measurement and reporting of risks provide managers with information to accomplish decisions and monitor outcomes before and after strategies are taken to mitigate them. Since the risk management process is ongoing, reporting and feedback can effectively refine the system by modifying or improving strategies (Horcher, 2005). According to Dionne (2013), risk management's objective is to maximize firm value by reducing costs associated with different risks. The main costs that companies incur are financial distress, income taxes, financing of future investment projects, and premiums payable to stakeholders. As Horcher (2005) states, proactively addressing financial risks may provide an organization with a competitive advantage. It also ensures that management, operational staff, stakeholders, and the board of directors agree on key risk issues.

1.3. Risk management strategies

According to the study developed by Mallik, Hiremath, Bhoola (2014), there are four primary risk management strategies: risk avoidance, risk mitigation, risk transfer, risk acceptance. Each of these techniques can be a useful tool in reducing risks in the business.

- Avoidance

Excluding actions with a significant probability of loss makes it difficult for risk to happen or executing the company's management in a different way that will achieve the same objectives but protects the enterprise from the effect of the risk as risk avoidance. This procedure typically involves acquiring an alternative approach that is more likely to succeed but is usually combined with a higher cost. A widespread risk avoidance strategy suggests that farmers use proven and present technologies rather than approving new technologies, although those could lead to more excellent performance or lower prices.

- Transference

Transferring a part or full risk to a third party by recognizing another stakeholder to manage the risk activities with a low probability of recurrence but with a high financial impact is termed as risk transference. A typical example of risk transfer is the purchase of insurance. The risk is shifted from enterprise to the insurance company. By meaning, insurance is the means of preserving against unforeseen loss. The company can move on to the risk by purchasing insurance from an insurance firm or passed via self-insurance. While using self-insurance, there are no premiums to pay, but the operator bears the entire cost of the loss in the event of a failure. Another example of the transference technique would be contracting. A contract is usually interpreted as a written or oral agreement between two or more parties, including an enforceable promise to do or avoid doing something.

- Mitigation

Reducing the risk to make it more acceptable to the organization by decreasing its influence can be termed as mitigation of risk. Tesch et al. (2007) recognize different mitigation strategies as risk response solutions. As a mitigation strategy, the authors propose increasing risk issues to top management, obtaining sign-off on commitments, stopping the project, and discussing further steps with the sponsor and management. The authors also advise working with them to understand neutrality's reasons if there is a lack of engagement from the administration or the

client.

- Acceptance

Recognizing that residual risks (i.e., the chance that remains after a risk response has been taken) will exist and respond either actively by allocating appropriate contingency or passively doing nothing except monitoring the risk status is defined as risk acceptance. Johnstone (2000) distinguishes three approaches to ensure efficient evaluation and approval of risk factors. These strategies include screening all stakeholders based on their risk profile, the stringency of reporting standards, and proactively applying risk adaptation strategies. Risk acceptance can act as a double-edged weapon if not controlled and investigated by senior management. It can become a possible threat to businesses if it crosses a decided threshold level, thereby increasing other risk forms.

1.4. Risk categorization

Gionne (2013) defines pure risk as "a combination of the probability or frequency of an event and its consequences, which is usually negative." Financial risk is viewed in undertaking opportunistic activities related to future risks that may generate positive or negative outcomes. Horcher (2005) indicates three primary sources of financial risks:

1. financial risks resulting from the firm's exposure to changes in market prices, such as interest rates, exchange rates, and commodity prices;
2. financial risks resulting from the actions of, and transactions with, other organizations such as vendors, customers, and counterparties in derivatives transactions;
3. financial risks resulting from internal actions or failures of the organization.

According to Horcher (2005), risk occurs during innumerable financial activities, including sales and purchases, investments and loans, and several other business actions. It can appear as a result of legal proceedings, new projects, mergers and acquisitions, debt financing, or within the decisions of management, stakeholders, competitors, international governments, or natural factors.

1.4.1. Risks in agriculture

Agricultural business organizations are subject to more significant risks than other business

sectors, considering that agricultural products and services are connected to natural processes, biological assets, plant and animal diseases (Girdžiūtė, 2012). The literature on agricultural risk (Dillon, 1971; Halter, 1971; Hardaker, 2004; Landanyi, 2003) shows that it is difficult to evaluate and manage agriculture risks. Agricultural enterprises are facing massive numbers of uncertainties. The examination of agricultural finance records (Adams, 2008; Dao et al., 2004; Dickson, 1996; Drollette 2009; Hardarker et al., 2004; Johnson, 2008) showed the main risk types in agriculture, their characteristics, and the key factors (Table 1; Table 2; Table 3.). Additionally, the data is structured in tables according to the mentioned above Horcher (2005) sources of the financial risks. Table 1 implicates risk types in agriculture and their features resulting from the firm's internal actions or organization failures.

Table 1. Internal risks in agriculture and their features

Risk Type	Features	Key Factors
Production Risk	risk occurs because agriculture is influenced by several uncontrollable climate events, including extreme or inadequate rainfall, intense temperatures, hail, insects, and diseases.	natural conditions; biological and environmental accidents; technological level; natural hazard; demand; policy conclusions
Personal Risk	the risk may result from such events as death, divorce, trauma, or weak health of the firm's participants are the means for a greater risk for the company. Moreover, the changing goals of individuals involved in the farming industry may significantly affect their long-run performance.	legal transactions; partners eagerness to settle the debt; partner's financial status

Source: Girdžiūtė, 2012

Table 2 determines risk types in agriculture and their features resulting from the actions and transactions with other market participants.

Table 2. Marketing risks in agriculture and their features

Risk Type	Features	Key Factors
Credit Risk	risk happens if the borrower defaults to make payments as agreed. Agricultural production is defined by seasonality, which may affect the settlements' particular circumstances and the cash flow distribution in a specific period.	legal transactions; partners eagerness to settle the debt; partner's financial status
Marketing Risk	marketing risk is connected to uncertainty about supply of a product, demand for the product and production cost, along with the chance of occurring a change in prices that would unfavorably affect the producer.	variations in prices; supply; demand; production cost

Source: Girdžiūtė, 2012; Drollette 2009

Table 3 defines risk types in the agriculture industry and their features emerging from the firm's exposure to changes in market prices and governmental policies.

Table 3. Economic risk type in agriculture and their features

Risk Type	Features	Key Factors
Political Risk	this risk outcome from changes in policies and regulations that influence agriculture. This type of risk commonly results from variations in policies affecting animal manure disposal, limitations in protection practices or land use, or variations in income tax policy, credit policy, or supporting policies.	environmental regulations; political events; business regulation; environmental protection; food safety
Economic Risk	this type of risk is associated with trading activities and the participants' capability to honor their obligations under certain countries' conditions. This risk reflects the country's ecological signs.	control of exchange rate; tax policy; price controls, market fluctuations

Source: Girdžiūtė, 2012; Kahan, 2008

Once the risks and their features are explained and shown in Table 1, 2, and 3, it is possible to determine their interaction. It can be reasoned that although the sources of agricultural risks vary, they are eventually connected. The production risk is linked to economic, political, and personal risks. The economic risk depends on the country's political situation and further on the present legislation and policies. The credit risk depends on regulation that is a component of the political risk and on the country's overall economic condition. Consequently, in the processes of the examination, evaluation, or management of agricultural risks, it is challenging to separate various sorts of risks because these uncertainties affect and interact with each other.

2. EQUINE INDUSTRY

2.1. Introduction and the economic role

Over the centuries, horses have occupied a special place in human lives, playing a unique role in humankind's history, culture, and developing civilizations. According to the evidence found in Ukraine, horses were domesticated by the middle of the fourth millennium B.C., and the earliest representations of ridden horses are dated about 1900 B.C. (Mackay-Smith, Druesedow, & Ryder, 1984). However, molecular studies suggest that the horses' diversity on the maternal side probably originates from several populations in different geographical areas (Vila et al., 2001). The domestication of horses was the first step in developing a modern diversified equine industry. Equines are believed to be the most versatile animals that have been domesticated by people. Horses are used as working animals in transport, tourism, forestry, agriculture, and even therapy and sources of milk and meat or as research animals, wild and semi-feral animals; a horse fulfills virtually every role an animal can. Widely considered a large and varied industry, the Western European equine sector contributes to the European economy. The diversity of equine-related companies has increased over the years, along with strong trends observed towards extra diversification into different markets in the equine sector. The economic value of the equine industry has been examined with input-output analysis for some European countries. According to the research investigated by Schneider and Mahlberg in 2005, the overall economic impact provided by the horse industry in Austria resulted in generating a production value of EUR 1.19 to 1.26 billion. The value-added activities generate EUR 634-674 million. Additionally, 3-4 horses create one workplace in the national economy. Referring to the study conducted by IPSOS, German Riding Association (2005), it was shown that the total annual expenses in the German horse sector are approximated to EUR 2.6 billion, and the total sales within the industry are nearly EUR 5 billion. Furthermore, 3-4 horses in Germany create one full-time job. Following a survey driven by DEFRA (2004) that reports direct employment in the horse sector of 50 000 people in the United Kingdom. The total employment rate in the United Kingdom due to the equine industry's indirect effects is evaluated to be 150 000-200 000 people. These figures correspond to 5-7 horses per full-time job. These results indicate that the equine industry may have a remarkable impact on the overall economy.

2.2. Size of the equine industry and distribution

"The E.U.'s equine sector is vibrant, varied and difficult to quantify."(A World Horse Welfare and Eurogroup for Animals report 2015, 15). No study has succeeded in reporting accurate data concerning Equidae's actual numbers in Europe due to the fragmented nature of the sector. Organizations have collected the available data with particular industries, for instance, the equestrian sports industry sector. Horses are widely used in other directions besides performing sports. Thus it is impossible to see the full picture, as the amount of information regarding other equine categories is very little (such as used for works horses). In this thesis, the data provided by A World Horse Welfare and Eurogroup for Animals report 2015 is used to meet the objective of demonstrating the approximate size of the equine industry in Western European countries (According to Nijman, Muller and de Blij (1971) The definition of Western Europe includes: Austria; Belgium; Czech Republic; France; Germany; Ireland; Liechtenstein; Luxembourg; Monaco; Netherlands; Switzerland and the United Kingdom). According to the data provided by A World Horse Welfare and Eurogroup for Animals report (2015), showed in Table 4, France and the United Kingdom have the most significant horse populations in the Western European countries, while the total Equidae Population in Western European countries is 3,246,668 excluding Liechtenstein, Monaco, and Switzerland.

Table 4. Western European Population Figures for Equidae

Member State	Lowest figure given	Highest figure given	Mean (all responses)	Ranking (from Mean)
France	461,036	1,000,000	840,259	1
United Kingdom 3		1,000,000	796,000	2
Belgium	38,968	805,496	535,897	3
Germany	461,000	500,000	480,500	4
Netherlands	137,000	450,000	293,500	5
Ireland	118,400	200,000	159,200	6
Austria	86,500	120,000	103,250	7
Czech Republic	33,175	33,175	33,175	8
Luxembourg	4,887	4,887	4,887	9
Total*	1,730,966	4,113,558	3,246,668	-

*Excluding Liechtenstein, Monaco, and Switzerland due to the lack of data

Source: A World Horse Welfare and Eurogroup for Animals report 2015, 82

Table 5 illustrates the per capita equine population calculated to deliver more comprehensive meaning to population figures and a more reliable correlation between Western-European countries, excluding Liechtenstein, Monaco, and Switzerland due to the lack of data.

Table 5. Per Capita Equine Population

Member State	Human Population	Equine Population (mean)	Per Capita**	Ranking
Austria	8,507,786	103,250	0.012	4
Belgium	11,203,992	535,897	0.047	1
Czech Republic	10,512,419	33,175	0.003	8
France	65,856,609	840,259	0.012	4
Germany	80,780,000	480,500	0.005	7
Ireland	4,604,029	159,200	0.034	2
Luxembourg	549,680	4,887	0.008	6
Netherlands	16,829,289	293,500	0.017	3
United Kingdom (		796,000	0.011	5
Total*	263,152,065	3,246,668	0,012	

**Per capita equine population = equine population / human population

Source: A World Horse Welfare and Eurogroup for Animals report 2015, 82

According to the data provided by A World Horse Welfare and Eurogroup for Animals report (2015), Belgium has the highest per capita equine population with approximately one equid for every 21 persons, followed by Ireland and the United Kingdom. The Czech Republic has the lowest per Capita equine population, with around three equids per 1000 persons. These numbers show the relative size of the equine population.

2.3. Structure of the equine industry

The equine sector implies economic activities involving horses and is known for its versatility. According to the report published by The World Horse Welfare and Eurogroup for Animals (2015) - "It is a sector of incredible diversity, encompassing everything from sport and racehorses worth millions of euros to animals with no financial value whatsoever. " Pluda, Martina (2015). A range of performed activities divides the whole industry into the core sector and support sector. The core sector consists of activities where horses are directly involved in. The major products delivered by the core sector are Equidae that can be traded at different ages, breeds, and levels of performance, followed by breeding material, milk, and meat. The services provided by the sector vary from the directly intended for the horses (training, showing, grooming, and breeding services.) to services designed for people (riding lessons, tourism, and rehabilitation activities, others). In particular research, the activities provided by the core sector were categorized into the following subcategories:

- sport - Equidae kept mainly for professional or amateur competitive activity; - breeding - Equidae kept for reproduction and trading;
- trading - Equidae kept for training and reselling;
- tourism and recreation - riding schools and camps Equidae, Equidae used in tourism, trekking, and circuses;
- work - Equidae kept for commercial, official, or subsistence activity (agriculture, forestry, carriage hire, military, and police);
- productive horse keeping - Equidae intended to be slaughtered for human consumption or used to produce milk;
- rehabilitation - Equidae used for equine-assisted activities and therapies; - preservation of biodiversity - reproduction, and protection of native and wild breeds.

The supportive sector supplies the required goods and services to the care sector. The goods produced include forage and feeding supplements, bedding material and equipment for stables, tack and clothes for riding, riding surface, and paddocks materials. Regular services encompass veterinary and ancillary veterinary assistants (such as equine dental technicians, equine physiotherapists, equine chiropractors.), farrier services, manufacturing and selling agricultural

equipment (field maintenance tools.), and equipment for the care of Equidae, equine transport, show organization. For future reference, that this is by no means an exhaustive list.

2.4. Review of accounting in equine related companies according to IFRS

International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB), are the documents that set common rules and provide an integrated system of requirements to govern financial accounting practices and activities to ensure consistency, transparency, and comparability in companies around the world. IFRS indicates how enterprises should maintain and report their accounts, specifying types of transactions, and other financial impact events, creating common accounting language used and relied on from country to country and from company to company. International Accounting Standard 41 Agriculture (IAS 41) was adopted by the International Accounting Standards Board in April 2001. This Standard's objective is to prescribe the accounting treatment and disclosures related to agricultural activity - the management of the biological transformation of biological assets (living plants and animals) into agricultural produce (harvested product of the entity's biological assets). Key definitions from IAS 41:

Biological asset - a living animal or plant;

agricultural activity - the management by an entity of the biological transformation of biological assets for sale into agrarian produce or additional biological assets;

biological transformation - comprises the processes of growth, degeneration, production, and procreation that cause qualitative or quantitative changes in a biological asset.

2.4.1. A horse as company owned asset

A horse is a living creature, hence is recognized as a biological asset. The recognition of biological assets is normally regulated by IAS 41, specially drawn up to regulate accounting treatment and disclosures related to agricultural activity. However, due to the equine industry's diverse structure, Equidae could be corporate-owned for use either in or outside the agriculture

activities. Here raises a straightforward question of whether equine-related companies should recognize corporate-owned Equidae. In specific cases where animals are involved in the agriculture activity, it is justified to recognize a horse as a biological asset following the regulations set by IAS 41. For instance, if a company operates in the breeding (Equidae kept for reproduction) or productive (Equidae kept for meat/milk-producing) sector of the equine industry. However, if the business is operating in tourism and recreation type of activities, it is reasonable to refer to International Accounting Standard 16 Property, Plant and Equipment (IAS 16), as in this case, the company is not performing an agriculture activity. Moreover, if recognizing the horse as a biological asset by its definition, it is more reasonable to rely on recognizing tangible fixed assets and the corresponding standards. According to Kullerkann (2017), a common practice among European companies owning a horse is that the fair value of the horse as a biological asset is formed based on an expert assessment, whereas the expert giving the assessment is most commonly a person related to the company, i.e., the owner of the company or a member of the management board. Such expert assessment contains a subjective opinion, which may change the company's financial results, and the reader of the annual report may not get a fair overview of its economic situation.

3. METHODOLOGY

According to Saunders, Lewis, and Thornhill (2012), research methodology is "the theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which research is based and its implications for the method or methods adopted". This section includes methodological assumptions and considerations applied during this study. First, this chapter introduces the development of the research problem and research questions that consequently explain a methodological choice, followed by justification and a detailed description of the research design and data collection methods. Finally, detailed information about respondents was presented.

3.1. The research object and justification of selected methods

It goes without saying that the topic's selection is a very responsible stage in researching because it impacts the work's future success and evaluation. This stage is vital since it provides a researcher with the study's aim and identifies the point of destination. The choice of topic should comply with the author's knowledge and possibilities and be of particular interest to the author. (Kasnauskienė, 2016) The research topic is: How companies involved in the equine industry of Western European countries are managing their financial risks from an accounting perspective. While formulating the BA thesis topic, the following factors were taken into account: its relevance, significance to the theory and practice of the scientific field; students' preferences and availability of relevant information; theoretical preparation. Equine-related businesses are a huge part of the agricultural industry, including several activities with a wide range of horses. Similar to all industries, the equine industry is surrounded by different types of business risk, which is anything that threatens a company's ability to achieve its financial goals. Moreover, agricultural business organizations are subject to more significant risks than other business sectors, considering that agricultural products and services are connected to natural processes, biological assets, plant and animal diseases (Girdžiūtė, 2012). Additionally, the whole topic of risk management in an equine industry could be viewed as underestimated; as to the author's knowledge, there is a lack of modern research and studies investigated in a particular field. Due to the author's commitment to the field on the professional level, the study's key question of whether particular relevant risk management strategies are used by

equine businesses to become more successful while dealing with financial risks emerged. The choice of a specific area of Western European countries is motivated by the high density of equine businesses located in the

region, explained by higher market demand. Furthermore, the lack of studies on Western European equine companies' financial models and behavior has contributed to the interest in writing this thesis. Consequently, this thesis aims to define the main financial risks faced by equine-related businesses in Western European companies and observe the difference in performing risk management activities correlated to the company's size. Research will begin by conduction of the interview, as current research requires detailed insights from individual participants directly involved to the companies. Interview can be viewed as a suitable method as it implies the open-ended questions with the aim for an in-depth information collection including exploring the views, experiences, beliefs and motivations of individual participants. Additionally, observation methods will be implied to cover the ethnography and to fulfill the detailed exploration of the work in the current field. According to Merriam (1988), the qualitative analysis focuses on understanding and exploring meanings, ideas, and values in their context. To develop an analysis of risk management of equine-related enterprises, there is a need to directly access the organizations to collect primary data from people directly involved in the company. Hence, this Bachelor's thesis applied the interview format as a general genre or design. Moreover, as a more specific tool - the semi-structured interview was used. According to Qu & Dumay (2011), the semi-structured interview suggests in advance prepared questions led by identified topics in a consistent and precise manner interposed with probes intended to obtain more detailed responses. Therefore, similarly to structured interviews, the semi-structured interview follows a line of a few preselected themes to be covered during the interview to push the conversation towards the interviewer's desired direction. Nevertheless, exactly comparable to unstructured interviews, it is more flexible, accessible, and understandable, allowing interviewees to respond in their own terms and language usage (Qu and Dumay, 2011).

3.2. Data collection

Empirical data of particular research was mainly obtained by qualitative analysis, notably from the semi-structured interviews with key senior management figures in companies. Author has

planned to conduct inlive personal interviews with respondents. Nevertheless, at the time of the COVID-19 pandemic, which has a significant impact on the whole global population and daily life - it is important to be flexible and provide possible changes to stay safe and prevent the virus's spread. All personal interviews were switched to online meetings or telephone interviews. Author used telephone and Internet technologies for setting up the dates for conducting interviews, while Microsoft Teams was the primary field to conduct the online meeting itself. Author decided to focus on the people directly involved in the top management of the companies operating in the equine industry. It was important to get the answers from the organizations' decision-makers, as those are responsible for the organization's risk management activities. The author knew the person who runs an equine company in the Western European country (Belgium) beforehand. Therefore I decided to use a "snowball method" for gaining the contact information of other persons connected to the management of the equine-related enterprise. The so-called "snowball method" is used to recognize persons with a high degree of information on a specific topic and ask those about other potential respondents of relevance (Johansen et al., 2004). With the above-specified person's help, I identified other related people who agreed to cooperate with me. Even though there was initially planned to conduct three interviews, four respondents agreed to participate in my research to share their opinion and experience regarding my research topic. The process started with creating the interview guide based on the framework of the study. After the careful checking process, the author contacted primary respondents via telephone or email to request an interview with them. The request form consisted of the interview guide, where the participants could read the research question and become familiar with all questions that were going to be asked. The interviews were carried out in the English language. All conferences started with describing the study's topic and purpose to increase trustworthiness and overall understanding of the Bachelor's thesis. Author informed every respondent that the discussions were going to be recorded and transcribed. Additionally, they were asked if they wanted their names to be open and published or if they prefer to stay anonymous. It is important to mention that all participants approved that the interviewer could tape, transcribe, and use their information. Moreover, they agreed their names to be announced. All transcriptions were produced immediately after the interviewing processes to eventually achieve and hold the entire idea of the respondents' views about the reviewed topic. The meetings lasted a medium quarter of an hour, depending on the participants' background and time availability. I am extremely grateful to my respondents that they have found time to share

their expert opinions. The detailed information about respondents is presented in Table 6.

Table 6. Information about respondents

Respondents	Position occupied in the company	Location of the company	Quantity of employees	Quantity of corporate owned horses
Hans Meganck	owner and manager	Arendonk, Belgium	3	20
Leopold Engelen	owner and CEO	Arendonk, Belgium	1	1
Rob van Puijenbroek	founder, owner and CEO	Vlimmeren, Belgium	7	100
Judy de Winter	founder, owner and CEO	Strijen, Netherlands	3	40

All respondents are experienced people who participated in managing companies operating in Western European countries' equine industry. Interviews were subjected to the following topics for conversation:

- Most significant sources of risks in equine-related enterprises;

- How could these risks be managed, and what strategies are the best or worst suited? - How COVID-19 influenced risk management in companies?

Detailed questions for the interviewer which were used while conducting the interviews can be reached in Appendix 1. In addition to the primarily data-gathering techniques, several secondary and supplemental methods were adopted. Secondary data include qualitative and

quantitative data and are used in both descriptive and explanatory types of research. (Saunders et al., 2003). I acquired the secondary data from the official documents on the Internet. The document analysis's foremost benefit was that it helped me learn more about the risk management processes' background and maintain my research's reliability and validity. It supported the formulation of the appropriate questions, which were asked to the interviews' participants. Consequently, applying secondary data sources was a worthwhile method for finding relevant data for this thesis research.

4. THE EMPIRICAL PART

In order to understand the equine-related businesses' perception and organization of risk management activities, empirical findings of the thesis are presented in this chapter. Firstly, the author analyzed the general concept of risk management that is employed in companies. Additionally, major risks identified in the equine sector are discussed, including those that escalated from the COVID-19 pandemic. After that, the author explored the organizational response to the recognized risks and strategies used to manage those. Finally, risk management improvement approaches were described in this chapter.

4.1. The perception of risk management in equine-related businesses

Firstly, it is reasonable to analyze risk management's perception in general from the equine industry perspective. Based on the responses by most interviewees - the risk is identified as the uncontrollable problems that occur in the industry. Moreover, risk management itself can be considered as actions towards predicting those risks and minimizing them. According to interviewee 1, Hans Meganck - risk management is an "indication which anchor you will leave to avoid damage to the company." Nevertheless, contrary to the other industries in the equine sector, the stable management factor occurs. It is essential for equine-related businesses to have excellent stable management, which appears to be a part of risk management. Interviewee 4, Judy de Winter, states that it is fundamental to have a person "to keep an eye on everything," meaning that horses, contrary to their size, are fragile animals by their nature, and working with them is an unstable fact. People involved in equine businesses have to be on everything that is happening, from checking the quality of straw in the stables to ensuring that animals are always dry and wearing proper rugs in order not to catch a cold - thus, it is an enormous amount of management starting from simple and small details. (Judy de Winter) All interviews shared the view that equine-related enterprises are being subject to greater risks than other business sectors. Interview 1 compared equine enterprises to regular business branches (with no agriculture including) - to his point of view, equine-related companies have much more uncertainties and unstable markets. Moreover, the exaggerating of health is directly implicated as an additional risk that is hard to foresee rather accurately. Simultaneously, Rob van

Puijenbroek shared his thoughts about all equine companies' main products: horses. "Our product is basically worth five hundred euros if you go to the butcher. All the rest of what you see is emotion and feeling, and emotions can switch surprisingly quickly, meaning that if the horse is not performing as well as you thought or if there is no sparkle - it can go away in one week because of injury or wrong management. Therefore, your profit can be gone in one day - from one million to five hundred if you have a bit of bad luck. That is what I mean by the incredible amount of risk." Generally, it is hard to indicate the true value of your companies' main assets, along with accepting the fact of its unstableness.

4.2. Risk categorization in equine-related enterprises

Moving to identify major risks in the equine industry - all interviewees supported a viewpoint that a primary risk occurring in the sector is related to horses' mortality. Hans Meganck, who is focused on breeding and selling dressage horses, argued that firstly, the production risk appears from the very initial stage - impregnation of the mare. Previously, breeders were supposed to implement the natural way of impregnation, where a stallion was physically inseminating the mare. However, the natural process of pairing could lead to several injuries to the mare. The modern way of breeding implies artificial insemination, sometimes with embryo transfer. Embryo transfer points to a step-in assisted breeding in which embryos are transferred into the uterus of a mare to verify a pregnancy. Often, the breeders recur to surrogates in order to keep the best performing mare in the sports, as pregnancy obviously can influence the training process. Therefore, Hans Meganck mentions that even starting from the embryo transfer process, there is a risk of the embryo not taking root by the mare's organism. Secondly, a stage of fetal development could lead to additional risks; contrary to people, the risk of losing a foal is much higher. Additionally, the death of the foal inside the mare could lead to the death of the mare itself. Finally, Hans Meganck mentioned the possibility of the progress of horses' health issues. He states, "In the equine industry, we have a situation of X-Ray and clinical examination (before purchasing a horse it is a common practice to organize a total vet check of the horse - to ensure the fitness of the horse for sports performances), imagine that you have invested a lot into the horse already, and then there can be found some small or major issues which affect and determines what the selling price will be. Moreover, there is an educational process, which takes time. During this period, many things can happen, including injuries or death, and

definitely affect the value of the asset." Besides the productional risk, in discussion with interviewee 2, Leopold Engelen, a sole proprietorship, the equine industry's personal risk was identified. Leopold assumed that in case of an accident that could happen to him - he would lose all profit channels. It is a well-known fact that equestrian sports have a higher risk level compared to other sports due to sentient animals' involvement. "If I accidentally break a leg tomorrow, I will not be fit to train any horses or go anywhere to train people, or to sell horses" - Leopold Engelen. Every

year horse riding causes deaths and serious injuries such as long-term paralysis from spinal cord damage. ABC News commented that equestrian sports are committed to the highest percentage of traumatic brain injuries in adults (Mohney, 2016). Most of the accidents occur while riding, yet West Bend insurance company stated that statistically, 20% of horse-related damages appear when the rider is dismounted, these damages typically include the rider being kicked or stepped on by the horse. The next risk recognized in the equine industry is economic. According to Rob van Puijenbroek, a founder and CEO of Begijnhoeve Equestrian Centre with approximately one hundred corporate-owned horses, there is an extremely high risk of "being too positive and not quick enough to sell worse quality horses." Rob mentioned the phrase "The bad ones eat the good ones," explaining that the cost of feeding, managing, and stabling fewer good horses is the same compared to the products with higher quality and consequently higher price. Generally, the horse's price is difficult to identify, as there are many factors to consider, such as the horse's age, the breeding line, the health condition, the level of training, competition results, and the quality of the gaits. While the horse's quality is limited, there is no evidence for continuing the training process, as the final price will not change remarkably. Opposite, the costs will increase, which will reduce the profit gained from the sale of the particular horse. Rob points out that sometimes as a breeder, it is hard to stay realistic, for the reason that there is always hope if you will put some work in the horse - it will become a better product, however in practice, if you are not realistic enough and let the normal horses stay in the barn - they will decrease the value of the firm. Proceeding with risk categorization, interviewee 4, Judy de Winter, claims that another big risk in the equine sector is marketing risk. According to de Winter, nowadays, it is challenging to gain enough trust to sell a horse. These risks are related to online sales when horses are being purchased without a physical try-out, but just considering information provided online (pictures and videos). Judy de Winter claims that this way of trading is harder, as the responsibility of choosing a correct horse relies on the seller, not the

buyer, as it usually appears offline. During the interview, Judy explained: "I am choosing a product for a client, and this is tough because you never really know their desires and needs," as riding is foremost about feeling, and every rider has their own perception and needs of the feeling when they sit on the horse. Market risks could occur in online sales for the reason of a high possibility of fraud. "When people are starting to buy online, and they buy from the wrong person, who is just fooling around and is not doing the right thing - then it makes it even harder for sellers to get people to trust you enough to buy a horse. Because of the negative experience of online purchases - honest sellers are suffering" (Judy de Winter). Leopold Engelen mentioned the market risk in his discussion, saying that it is essential to "do not get too much work" for a sole proprietorship, as in this type of company, there is only one employee. In case of not being able to put enough time or effort into a particular client's horse because of overtaking the amount of work - the results will decrease, which will lead to a negative reputation on the market, which is considered to be a high risk. Besides the mentioned above, the credit risks are considered to be notable in the equine industry. Credit risks refer to legal transactions, partners' eagerness to settle the debt, and their financial status. According to interviewee 2, credit risks occur when selling or buying a horse and taking a particular horse from a client into the training.

4.3. Risks escalated in equine industry from COVID-19 pandemic

An important topic touched during the meeting with respondents was analyzing the risk that escalated from the COVID-19 pandemic. Respondents agreed that the main danger increased during the pandemic was the political, personal, and economic risks. Hans Meganck commented that policies adopted by the government to prevent the spread of the virus seriously influenced demand on both local and international markets: "Due to pandemic and the total economic situation on the local market many people had made a decision not to invest in horses, and others gave up their hobbies (including horse riding). Talking about the international market, where products are considered to be more expensive, the major problem is that people cannot freely move and travel, and making appointments for trying horses is not possible; thus, this makes the whole process of selling a horse much harder." Hans Meganck believes that the COVID-19 pandemic will have a long-term impact on the economic situation, not only in 2020. Judy de Winter supposed that conclusion by adding that because people are

supposed to be in quarantine, and the whole process of traveling became much more difficult - people are just not willing to fly over, therefore for organizations like De Winter Stables, which main focus is the international market, the whole situation seems to be unfavourable. Rob van Puijenbroek highlighted the growth of personal risks, as he stated: "It is pretty hard to wear masks all the time because when you are riding, and you get off the horse - it is not realistic and practical. Moreover, it is tough to solve the situation in the equine industry if one team member gets positive for the coronavirus because you can never close the barn, as horses need to exercise daily and have food. In case you have a few cases of the corona - you will have an enormous problem, as there will be no one to do the work." Leopold Engelen commented that he mostly faced the economic risks, as most places were shut down for private lessons, and the government has stopped all competitions. The whole situation greatly impacted his income, which has not been compensated by the state.

4.4. Risk management strategies applied in equine industry

The other significant topic during the interviewing process to be discussed is the best strategies to manage the identified risks. In general, respondents agreed on the avoidance strategy in case of facing the production risks. Interviewee 1 claimed that the best-suited way to avoid productional risk is, first of all, working with trustworthy biological material. "I try to work with the material, which has a known history of being healthy." Explaining the point further, Interviewee 1 mentioned that using a breeding mare, which is not healthy, increases the risk of having a foal with lower value because of the bad X-rays with chips on the pictures. That implies a planned usage of a good quality breeding material. Interviewee 3 supported this view by adding that risk management in the equine industry arouses with avoiding strategy, particularly by "minimizing the risks by starting to breed with healthy mares from reliable lines, corresponding to usage of very healthy stallions with solid breeding history, no health issues, and excellent competition results." Moreover, interviewee 3 mentioned that statistically, it would increase your chance to have a better horse quality wise and health wise. Even though implying this strategy is normally combined with a higher cost, most likely, it will succeed. An equine related business could implement the avoidance strategy in case of marketing risks. Interviewee 2 mentioned that for keeping the quality of the work on a certain level, which is directly connected to the reputation on the market, it is vital to avoid extra work to stay with a

specific amount of the tasks that a person can manage. It will help hedge lowering the quality of work and dropping the reputation. Risk mitigation is further admitted as a wide-used strategy. Interviewee 4 stated that the best way to mitigate the uncertainties faced by equine-related businesses is to ensure that the operation is run by an experienced, acknowledged manager who makes decisions based on profitability. Moreover, the manager has to be always aware of high injuries risk and great risk in whole wrong management. Variables such as forage, water, and disease that most production operations face, can be mitigated by recruiting personals who know what they are doing. Additionally, another example of risk mitigation that was already mentioned above is excellent stable management. All respondents believed that good management involves high-quality food and bedding, applying dental and farrier care, implementing facilities for proper exercising, and turnouts (including inside arenas, paddocks, walkers, quality grounds, etc.) It is essential to have an individual training plan for each horse, not to over train and avoid injuries. Risk mitigation strategy is generally used with management of personal risks as well. Leopold Engelen claimed that the best way to mitigate the risks related to such events as death, traumas, or weak health of the firm's participants is to follow the safety rules. Besides that, even if profit decreases, it is sometimes worth avoiding problems by refusing to ride a dangerous horse (such as a horse with mental issues). The primary goal of a rider should be to stay healthy and fit for riding other horses. Moreover, interviewee 3 supported the mitigation strategy usage by adding that "nowadays it is smarter to have fewer corporate-owned horses, and provide a box rental as an additional way of earning because the risk stays at the owner's and not on the stable holder." Nevertheless, Leopold Engelen argued that even in implementing the risk mitigation strategy, there is still a high possibility of occurring the production risk. According to Leopold, even with the best possible management - horses, as living and often unpredictable creatures, can die from one day to another. Furthermore, they injure themselves even if a stable manager will organize and keep everything as safe as possible. It is vital that interviewees highlighted the existence of such a strategy as risk transference. Leopold added - "to be secured, I need to be well insured for different kinds of risks." As it was mentioned in the theoretical part, insurance is a typical example of transferring a part or full risk to a third party by recognizing another stakeholder to manage the risk activities with a low probability of recurrence but with a high financial impact. Nonetheless, the whole respondents believed that insurance is not the best-suited strategy regarding managing risks in equine-related businesses. Interviewee 1 mentioned in the

discussion that despite a wide variety of possibilities to ensure livestock (including insurance against theft, fire, natural disasters, terrorism, and obviously accidents or death, which are the most expensive), the major problem extends to the ultimate costs. Interviewee 4 supported the view by adding: "when you insure against even the most basic cases - you have to pay so much money that it does not work at the end of the day. Meaning that if a stable holder like me has 32 corporate-owned horses and is supposed to insure all of them, in case of the final sale, there will be no profit because all earnings will cover the insurance costs." Therefore all respondents agreed that using insurance to transfer the risk to the third party is not applicable in the equine-related industry in Western European countries, regardless of the company's size and the number of corporate-owned horses. Interviewee 3 underlined that it is more practical to use a risk acceptance strategy instead by claiming that statistically, it is financially better to have one dead horse a year than paying insurance costs. Hans Meganck, an interviewee 1, supported this approach by saying that it is better to have a small risk on something rather than spending a big part of the yearly budget; nevertheless, it is vital to mention that a decision of not taken the measures was made after continuous analyzing of the financial performance of the company. Thus, acceptance strategy is considered to be more suitable in managing production risks compared to the risk transference. However, risk acceptance can act as a double-edged weapon if not controlled and reviewed by senior management. In the conversation with Hans Meganck, the interviewee determined that using a risk acceptance strategy instead of risk transference led the HM stables to a serious loss because of the production risk that occurred. Hans Meganck states: "I have lost two foals and one embryo this year. The implications were made - the cost of insurance for this kind of exaggeration could be much less harmful to the budget I had in the past, surely it will impact my company in the next couple of years". Even though risk transference does not apply to the production risks, interviewee 2 stated that this is a vital strategy in coping with credit risks if those occur. An example of using a transference strategy to face credit risks is contracting. Leopold Engelen specified that selling contracts are standard. Selling agreements could differ from one sale to another. Nevertheless, they are always done with a purchase of the horse or with a horse's selling and are an important part of the process. While taking a horse from a client into the training, an agreement could serve as a solid risk management strategy in case of accidents with the horse, as contracts point out the liability for taking the risk. It is a common practice that the owner of the horse buries all the responsibilities for a horse. Notably, all respondents emphasized the similarity to other industries in the

importance of securing financial transactions based on the business plans and acquiring budgets yearly to manage the risks in equine sectors.

4.5. The overview of risk management system in equine companies and ways towards further improvement

A critical question was raised to participants during interviews: "How could risk management be improved in a particular company?" Leopold Engelen stated that there are always ways towards improvement: "Risk management involves so many risks - that it is not easy to put my finger on only one problem. If I knew how to improve other things, I would do it easy" Therefore, the sole proprietorship needs to address professionals to help identify the risks, implement the proper risk management strategies, and monitor the results. Leopold added that the possible improvement could be hiring a manager who would help him create a proper risk management system, as being the only one who manages the whole company and providing services to the clients could be challenging. Rob van Puijenbroek argued that normally in large companies like the Begijnhoeve Equestrian Centre, the risk management systems are exceptionally accomplished. Nevertheless, for start-up companies, Rob has advised trying to provide various services and products to the market instead of focusing on one good. Rob added: "What I do personally is combining the horse industry with different stuff and with other economics, for example, I try to be creative and in combination with having horses I am developing the real estate. If you have numerous lands, the big volume of a barn with a big roof - then it is quite a possibility to make money in different aspects than horses. It is smart to spread your risks instead of betting on one horse, literally." Interview 1, Hans Meganck concluded the topic by adding risk management in the equine industry is underestimated: "there is a situation where a lot of people just do not think about it. So, by doing your thesis research now - you will create an eye-opener for a lot of people in the business."

CONCLUSION

This research's main goal was to provide a deep understanding of the main financial risks faced by equine-related businesses in Western European companies and observe the difference in performing risk management activities correlated to the company's size. Besides, there was an intention to comprehend what strategies are applied by top management of equine-related companies and analyze which ones are considered to be the most or the least successful. In this paper, a qualitative approach was used as the best appropriate methodology to reach the earlier set goals. The author carried out the research by performing an extensive literature review and semi-structured interviews with main respondents, such as founders, CEO, and top managers of the stables and equestrian centres operating in Western-European countries, particularly in Belgium and Holland.

The author has defined the following main practical implications:

Based on the responses by most interviewees - the risk is recognized as the uncontrollable problems that lead to damage to the company. Additionally, risk management is viewed as steps towards predicting those problems and decreasing them. Nonetheless, opposite to the other industries, the stable management factor occurs in the equine sector, which appears to be a significant part of risk management. This study reveals that equine-related companies are subject to face greater risks compared to other business sectors. The main factors determining the industry's riskiness are unstable markets, the fact of working with a living animal and its health exaggeration, limited transparency of the business followed by complicated indication of the true value of companies' assets, and its instability. Taking into consideration the opinions of the respondent, the relevant financial risks were identified in the equine industry in Western European countries:

1. Production risk, which is a primary risk occurring in the sector associated with horses' mortality and possible health issues.
2. Personal risk, which is associated with the danger of performing horse riding due to the highest percentage of getting traumas and serious injuries.
3. Economic risk, which is associated with the high cost of feeding, managing, and stabling

and difficulty of classification of the horse's price.

4. Marketing risk, which is affected by operating in online markets and difficulties of holding the company's reputation due to a high percentage of frauds in the markets. 5. Credit risk, which occurs in the situation of final sale or purchase of a horse, and could happen due to a parties' inability to fulfill its financial and legal obligations.

The evidence showed that the COVID-19 pandemic highly influenced the equine industry by increasing personal and economic risks. Moreover, the political risk escalated due to a COVID-19 pandemic, which influenced the market's demand, sales performance, and expected income level. The research findings show four effective risk-management strategies used by equine-related businesses in Western-European countries.The avoidance strategy, which implies working with trustworthy biological material with solid breeding history, no health issues, and excellent competition results to manage the production risks; and keeping the quality of the services on a certain level by avoiding extra projects and extra work in case of facing the marketing risks. Risk mitigation is further admitted as a wide-used strategy in facing productional and personal risks. The strategy implies ensuring the excellent stable management that is run by an experienced, acknowledged manager, who is aware of high risk in injuries and in the whole wrong administration, along with regular safety briefing and monitoring those rules to be followed and refusing the projects involving the horses in a higher danger level. Nevertheless, the pieces of evidence provided by respondents showed that even with the implementation of all three above mentioned strategies - there is still a high probability of suffering from the production risk. Therefore, it was underlined that using a transference strategy could decrease the productional risk to minimal levels by using insurance. However, all respondents agreed that using insurance to transfer the risk to the third party is not applicable in the equine-related industry in Western European countries, regardless of the company's size and the number of corporate-owned horses for the reason of the ultimate costs. The findings show that it is more practical to use a risk acceptance strategy instead, by claiming that statistically, it is financially better to have one dead horse a year than paying insurance costs. Nevertheless, the transference strategy is considered to be applicable in the case of credit risks by providing solid contracts. Notably, all respondents emphasized the similarity to other industries in the importance of securing financial transactions based on the business plans and acquiring budgets yearly to manage the risks in equine sectors. The political risks that escalated from COVID-19

appeared to be a new and unpredicted type of risk for the equine industry and were not accounted for in the risk management strategies you used in equine-related companies. Answering the main research question of how does the size of the company influence the risk management strategies in the equine industry in Western-European countries, the study points out that in large companies like Begijnhoeve Equestrian Centre with approximately one hundred corporate-owned horses and seven employees, the risk management systems are exceptionally accomplished. Small companies like Engelen dressage, the sole proprietorship with one corporate-owned horse, require addressing professionals to help recognize the risks, perform the proper risk management strategies, and measure the results. In medium-sized companies like HM Stables and De Winter Horses, with the approximate number of horses from twenty to thirty, the risk management system is continuously refreshing and changing into the final version. Nevertheless, all companies studied have identified the similar risks faced by operating in the equine industry and applied similar strategies to manage the risks.

The author has also defined the following limitations and scope for future research:

The analysis of organizational risk management in the equine industry is a broad notion, and it is challenging to analyze this process from all perspectives in one particular research. Hence, this thesis has its limitations. Firstly, this research was performed using a qualitative approach, in which the author carried out a semi-structured interview. Data were interpreted and analyzed, which can lead to subjective or biased interpretation. Secondly, due to the research's time and size, the author has examined only four companies. Moreover, the companies examined are operating only in two Western-European countries. Undoubtedly, it formulates a limitation regarding the generalization of conclusions to the whole equine sector in this region. More studies should be performed by increasing the sample size and analyzing various companies operating in all Western-European areas to validate empirical findings made by this research. Additionally, this study focused on analyzing such industry’s sectors as breeding for future sales and maintaining for performing the sports. Nevertheless, the equine-related businesses are a huge part of the agricultural industry, which includes several activities with a wide range of use of horses, meaning that further research of other sectors in the equine industry should be performed. Future studies could be conducted applying the mixed approach of qualitative and quantitative to have a broader and more in-depth picture of the studied topic.

LIST OF REFERENCES

Adams, Francis. (2008). Risk perception and Bayesian analysis of international contruction contract risks: The case of payment delays in a developing economy. International Journal of Project Management - INT J PROJ MANAG. 26. 138-148. 10.1016/j.ijproman.2007.05.007.

Argiles, J. M., Sabata, A., Garcia, Blandon, J. (2010). A Comparative study of difficulties in accounting preparation and judgment in agriculture using fair value and historical cost for biological assets valuation. – *Spanish Accounting Review*. Vol. 15 (1), pp. 109-142.

Argiles, J. M., Garcia-Blandon, J. G., Monllau, T. (2011). Fair value versus historic cost-based valuation for biological assets: Predictability of financial information. – *Spanish Accounting Review.* Vol. 14 (2), pp. 87-113.

Baquet A., Hambleton R., & Jose D. (1997). Introduction to risk management. (1st ed.) Washington: USDA, (Chapter 3).

Bhoola, Vanita, S B Hiremath, and Debasis Mallik. "An Assessment of Risk Response Strategies Practiced in Software Projects." *Australasian Journal of Information Systems*18, no. 3 (2014). https://doi.org/10.3127/ajis.v18i3.923.

Bobbitt, H.R., Williams, C.A., & Heins, R.M. (1965). Risk Management and Insurance. Journal of Finance, 20, 554.

Bohušova, H., Nerudova, D., Svoboda, P. (2012). Biological assets reporting: Is the increase in value caused by the biological transformation revenue? – *Agricultural Economics- Zemedelska ekonomika,* Vol. 58, No. 11, pp. 520-532.

Candler, Wilfred & Halter, Albert & Dean, Gerald. (1972). Decisions Under Uncertainty with Research Applications. American Journal of Agricultural Economics - AMER J AGR ECON. 54. 10.2307/1237759.

Crockford, G. (1982). The Bibliography and History of Risk Management: Some Preliminary Observations. The Geneva Papers on Risk and Insurance - Issues and Practice, 7, 169-179.

Dao, Hy & Peduzzi, Pascal. (2004). Global evaluation of human risk and vulnerability to natural hazards. Proc. Enviroinfo 2004 Conference. 1.

Deaconu, S. C., Pop, A., (2008). Assets. Biological Assets. The Seasonal Model in Agriculture. – *Theoretical and Applied Economics*. Vol. 7, No. 524, pp. 3-18.

DEFRA (2004). A report of research on the horse industry in Great Britain. Report March 2004 by Henley centre. Department of Environment Food and Rural Affairs The British Horse Industry Confederation National assembly for Wales and the Scottish Executive.

Department, Published by Statista Research, and Nov 27. "Number of Horses in the EU by Country 2018." Statista, November 27, 2020. https://www.statista.com/statistics/414913/eu-european-union-number-of-horses-by-country/.

Deutsche Reiterliche Vereinigung e.V. Fédération Equestre Nationale (FN). (2014). (rep.). EQUESTRIAN SPORTS AND BREEDING IN GERMANY. Warendorf (Germany).

Dickson, Gary. (1966). An Analysis Of Vendor Selection Systems And Decisions. Journal of Purchasing. 2. 28-41. 10.1111/j.1745-493X.1966.tb00818.x.

Dionne, G. (2013). Risk Management: History, Definition, and Critique. Microeconomics: Decision-Making under Risk & Uncertainty eJournal.

Drollette SA (2009) Managing production risk in agriculture. Department of Applied Economics Utah State University.

Faizrakhmanov, Dz. I., Klychova, G.S., Khametova, M.V. (2014) Accountancy in Horse breeding Organization in Compliance with International Accountancy Standards. –*Mediterranean Journal of Social Sciences*. Vol. 5, No 24, pp. 111-117.

Girdžiūtė, Laura. (2012). Risks in Agriculture and Opportunities of their Integrated Evaluation. Procedia - Social and Behavioral Sciences. 62. 783-790. 10.1016/j.sbspro.2012.09.132.

Hardaker, J. B., Huirne, R.B.M, Anderson, J.R., & Lien, G. (2004). Coping with risk in agriculture. (2nd ed). Wallingford: CABI Publishing

Harrington, S.E., & Niehaus, G.R. (1998). Risk Management and

Insurance. Horcher, K.A. (2005). Essentials of financial risk management.

Iermolenko, Olga. (2011) "A Comparative Study of Big Construction Projects in Ukraine and Norway," 2011, (thesis).

Ito, M., Maeda, K., & Noda, A. (2018). Discretion versus Policy Rules in Futures Markets: A Case of the Osaka-Dojima Rice Exchange, 1914-1939, (thesis).

International Accounting Standard 41 Agriculture (IAS 41) (2014). London: International Accounting Standards Commitee (IASC). http://eifrs.ifrs.org/eifrs/bnstandards/en/2017/ias41.pdf (17.05.2017)

International Accounting Standard 16 Property, Plant, and Equipment (IAS 16) (2014). London: International Accounting Standards Commitee (IASC). http://eifrs.ifrs.org/eifrs/bnstandards/en/2017/ias16.pdf (17.05.2017)

International Financial Reporting Standard (IFRS) 13 (2011). Fair Value Measurement. − International Accounting Standards Board. http://eifrs.ifrs.org/eifrs/bnstandards/en/2017/ifrs13.pdf (17.05.2017)

Johnson, Timothy. (2007). Volume, Liquidity, and Liquidity Risk. Journal of Financial Economics. 87. 388-417. 10.1016/j.jfineco.2007.03.006.

Kahan, David. (2004). Farm management extension guide MANAGING RISK in farming. 10.13140/2.1.1724.3208.

Kasnauskienė. (2016). METHODOLOGICAL GUIDELINES FOR WRITING BACHELOR‘S THESES.https://www.vm.vu.lt/external/vm/files/PDF/studentams/METHODOLOGICAL_GUIDELINES _FOR_WRITING.pdf.

Khabibi, A. (2009, November). A practical guide to accounting for agricultural assets. https://www.academia.edu/30414729/A_practical_guide_to_accounting_for_agricultural_assets.

Kullerkann, K. (2017). Hobuste arvestus Eesti ettevõtete raamatupidamises Accounting for Horses in Estonian Companies(Unpublished master's thesis). Tallinn University of Technology.

Ladányi, Márta. (2007). Risk methods and their applications in agriculture. Applied Ecology and Environmental Research. 6. 10.15666/aeer/0601_147164.

LANDSCAPE HORTICULTURE AGRICULTURE. “How Innovative Is the Education Sector?” *Education Indicators in Focus*, 2014. https://doi.org/10.1787/5jz1157b915d-en.

Leavy, P. (2017). Research Design - Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches. THE GUILFORD PRESS .

Mackay-Smith, A., Druesedow, J. R., & Ryder, T. (1984). *Man and the horse: An illustrated h*istory of equestrian apparel. New York: Metropolitan museum of art.

Merriam, S. B. (1988). The Jossey-Bass education series, The Jossey-Bass higher education series and The Jossey-Bass social and behavioral science series.Case study research in education: A qualitative approach. Jossey-Bass.

Mohney, G. (2016). Horse Riding Is Leading Cause of Sport-Related Traumatic Brain Injuries, Study Finds. ABC News. https://doi.org/https://abcnews.go.com/Health/horse-riding-leading-sport-related-traumatic-brain injuries/story?id=38090435

Paula, L., Järvinen, M., Karhu, K., & Pyysiäinen, J. (2013). GOOD PRACTICES AND INNOVATIONS IN THE EQUINE SECTOR: CURRENT TRENDS AND FUTURE OPPORTUNITIES. https://portal.mtt.fi/portal/page/portal/mtt_en/projects/innoequine2/publications/FINAL%20IN N OVATION%20PROCESSES%20IN%20THE%20EQUINE%20SECTOR_May_2013_11.pdf.

Pluda, M. (2018, May 15). Removing the blinkers - The pioneering report on the health and welfare of EU horses, donkeys and mules. Dipòsit Digital de Documents de la UAB. https://ddd.uab.cat/record/190071?ln=en.

Qu, S. Q., & Dumay, J. (2011, August 30). The qualitative research interview. https://www.emerald.com/insight/content/doi/10.1108/11766091111162070/full/html?src=recsys .

Schneider H.W. and Mahlberg B. (2005). The economic role of the horses in Austria. Pferd

Austria and Industriewissenschauftliches Institut Vienna.

Tesch, Debbie & Kloppenborg, Timothy & Erolick, Mark. (2007). IT project risk factors: The project management professionals perspective. The Journal of Computer Information Systems.
UKEssays. (November 2018). An Overview Of Research Methodology Education Essay. Retrieved from https://www.ukessays.com/essays/education/an-overview-of-research-methodology-education-es say.php?vref=1

Vila, C. (2001). Widespread Origins of Domestic Horse Lineages. Science, 291(5503), 474–477. https://doi.org/10.1126/science.291.5503.474

APPENDICES

Appendix 1. Questions for the Interviews

The aim of the research is to define the main financial risks faced by equine-related businesses in Western European companies and observe the difference in performing risk management activities correlated to the company's size.

i. Please introduce yourself? What is your role and position occupied in this company?

ii. Could you please tell me more about your company: When the company was established? In what field does it operate? What are the major products or services being offered to the market?

iii. What is the quantity of employees assigned to your organization?

1. Is there any equidae listed in your firm's assets? If yes, what is the number of corporate-owned horses?
2. From your point of view, what is risk management?
3. Do you agree with the phrase: "Equine related enterprises are being subject to face greater risks compared to other businesses sectors"? Could you explain your answer?
4. What major risks do you identify in the equine sector?
5. How do you perform risk management in your company, and what strategies you consider to be the best suited?
6. What particular risks escalated from the covid-19 pandemic?
7. Were the risks escalated from the covid-19 pandemic accounted for in the risk management strategies you used in your company?
8. How can risk management be improved in your business?
9. Is there anything else you would like to add? Any other aspects of linking risk management strategies to the size of the company in the equine industry?

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