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EXPLORING THE FACTORS THAT AFFECT WORLD ANTI-DOPING CODE
COMPLIANCE: AN ANALYSIS OF PERU'S AND BOLIVIA'S NATIONAL
ANTI-DOPING ORGANIZATIONS

by

FRANCISCO LEÓN CANNOCK

A DISSERTATION

Presented to the Faculty of the University of the Incarnate Word
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF THE INCARNATE WORD

December 2020

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EXPLORING THE FACTORS THAT AFFECT WORLD ANTI-DOPING CODE
COMPLIANCE: AN ANALYSIS OF PERU'S AND BOLIVIA'S NATIONAL
ANTI-DOPING ORGANIZATIONS

Francisco León Cannock

University of the Incarnate Word, 2020

The purpose of this dissertation was to identify and understand the factors that affect the World Anti-Doping Code compliance of the National Anti-Doping Organizations in Peru and Bolivia. By identifying and understanding these factors, this research may provide useful information on how to strengthen compliance and development strategies. This dissertation used a qualitative basic interpretive design with a sample of anti-doping experts from Peru, Bolivia, and the World Anti-Doping Agency, and a comprehensive document review process. Through coding and thematic analysis of the in-depth interview data and the development of a findings model, three main findings were identified as factors that affect compliance: (1) inadequate anti-doping legislation, resources, and structure; (2) authorities' limited support and understanding of anti-doping and compliance; and (3) limited understanding of the cultural context, the value of relations, and the potential benefits of sanctions. The data analyzed suggested that the factors that affect compliance are generally heterogenous and context-specific, indicating that the best way to address them requires the implementation of context-based compliance and development strategies. Results indicate that compliance strategy may be strengthened by using different responsive regulatory tactics based on cultural differences and compliance motivations of the World Anti-Doping Code signatories.

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LIST OF ABBREVIATIONS

AAF	Adverse Analytical Finding
ADAMS	Anti-Doping Administration & Management System
ADLogic	UNESCO Anti-Doping Logic Questionnaire
ADO	Anti-Doping Organization
ADRV	Anti-Doping Rule Violation
AOP	Annual Operational Plan
ASP	Athlete Support Personnel
ATF	Atypical Finding
BCS	Baseline Compliance Strategy
BOC	Bolivian Olympic Committee
CA	Corrective Action
CAR	Corrective Actions Report
CAS	Court of Arbitration of Sport
CCC	Code Compliance Center
CCQ	Code Compliance Questionnaire
CMP	Compliance Monitoring Program
Code	World Anti-Doping Code
Convention	UNESCO International Convention Against Doping in Sport
COP	Conference of Parties

List of Abbreviations—Continued

CRC	Compliance Review Committee
DCF	Doping Control Form
DCO	Doping Control Officer
ESAs	Erythropoiesis-Stimulating Agents
GDP	Gross Domestic Product
IC	In-Competition
IF	International Federation
IOC	International Olympic Committee
IPD	Instituto Peruano del Deporte [Peruvian Sports Institute]
IR	Information Request
ISCCS	International Standard for Code Compliance for Signatories
ISE	International Standard for Education
ISL	International Standard for Laboratories
ISPPPI	International Standard for the Protection of Privacy and Personal Information
ISRM	International Standard for Results Management
ISTI	International Standard for Testing and Investigations
ISTUE	International Standard for Therapeutic Use Exemptions
MEO	Major Event Organizer
MIR	Mandatory Information Request
NADO	National Anti-Doping Organization

List of Abbreviations—Continued

NOC	National Olympic Committee
OOOC	Out-of-Competition
PAG	Pan-Arab Games
PDNRR	Program Development and NADO/RADO Relations Department
PP	Prioritization Policy
RADO	Regional Anti-Doping Organization
RM	Results Management
SAM RADO	South America Regional Anti-Doping Organization
SCS	Strengthened Compliance Strategy
SP	Strategic Plan
TA	Testing Authority
TDSSA	Technical Document for Sport Specific Analysis
TG	Testing Grant
TUE	Therapeutic Use Exemption
TUEC	Therapeutic Use Exemptions Committee
UN	United Nations
USADA	United States Anti-Doping Agency
WADA	World Anti-Doping Agency
WC	World Championships

Chapter 1: Factors that Affect World Anti-Doping Code Compliance

Statement of the Problem

Although the field of anti-doping has grown steadily since the World Anti-Doping Agency (WADA) was established in 1999 and was later accelerated by the 2015 Russian scandal, which unveiled a state-run doping scheme in the country, the performance and World-Anti-Doping Code (Code) compliance of many National Anti-Doping Organizations (NADOs), particularly in small developing countries, is still limited. Therefore, there is a need to understand the reasons behind countries' difficulties establishing Code-compliant NADOs.

However, research on the matter is still at an embryonic stage. Hanstad et al. (2010) have identified a need to develop new methodologies and instruments to evaluate the work of the NADOs, particularly in terms of performance. Although there has been an increase in publications on WADA's structures and policies (Hanstad et al., 2008; Henne, 2010; Houlihan, 1999; Jann et al., 2017), the overall NADO performance and compliance literature is still scarce.

In line with this, the majority of current studies on the performance of NADOs are limited to evaluating the implementation of specific anti-doping program areas, such as education and testing, as well as NADO independence and governance. However, they do not examine overall NADO performance or compliance; in fact, very little is known on the factors that affect performance or compliance.

This study intends to lay the groundwork to better understand the factors that affect NADO compliance in developing countries with the goal of strengthening current development and compliance strategies. In order to do this, two NADOs that have implemented limited anti-doping programs were selected: the NADOs in Peru and Bolivia. Considering the exploratory

nature of this research, the basic interpretative design used in this dissertation was the best qualitative methodology to address the research question.

Purpose of the Study and Research Question

The purpose of this study was to identify and understand, through the perceptions of key knowledge holders, the factors that affect Code compliance of the NADOs in Peru and Bolivia. By identifying and understanding these factors, this research may provide useful information on how to strengthen current development and compliance strategies. The following research question guided the work conducted in this dissertation: What are the factors that affect Code compliance of the NADOs in Peru and Bolivia?

Research Significance

This study contributes to strengthening current compliance strategies by identifying the factors that affect the development of Code-compliant anti-doping programs in Peru and Bolivia. Although other countries within WADA's Regional Anti-Doping Organization Program may have been selected for this study, Peru and Bolivia were chosen both for their state of anti-doping development and Code compliance and for being Peruvian myself. I have worked in the public sector in Peru, know the political and sports situation of the countries, speak the language of the participants, and understand the local cultures.

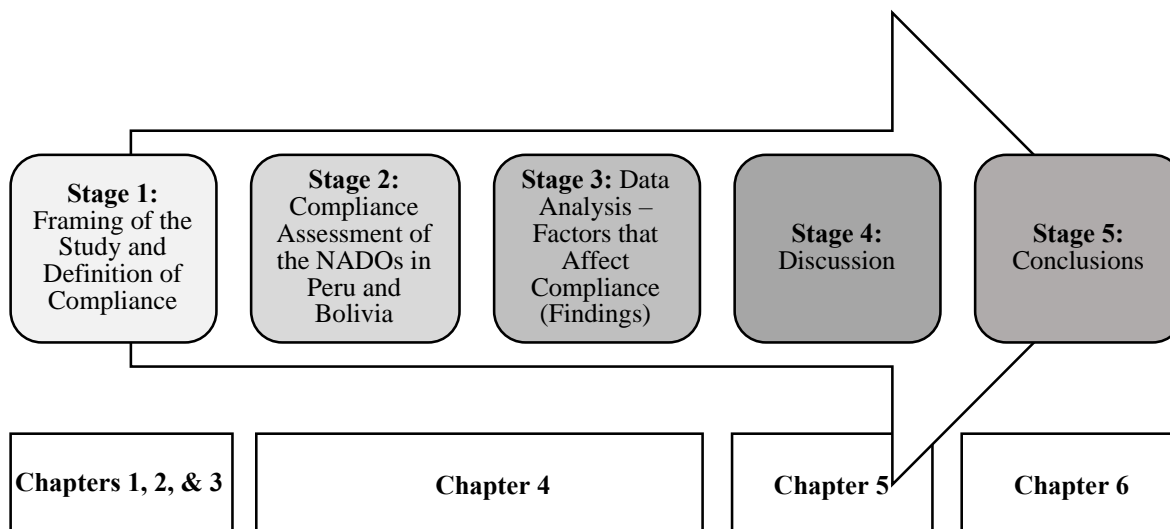
This information will result not only in an increased understanding of the factors that affect compliance in Peru and Bolivia but also, in light of the findings of the study, in the development of specific action plans to help NADOs establish Code-compliant anti-doping programs in other developing countries. This research also hopes to provide useful insight on the types of compliance issues faced by small NADOs in the South American region (and across the world) and the types of strategies that can be taken to overcome them.

Research Process

Taking into consideration the basic interpretative design used to answer the research question, a five-stage research process was developed and implemented for this study. This process was divided among the six chapters of this dissertation, and each stage built knowledge from the previous one (see Figure 1). Stage 1 includes Chapters 1, 2, and 3 (Factors that Affect World Anti-Doping Code Compliance; Literature Review, including a definition of compliance; and Methodology); Stages 2 and 3 include Chapter 4 (Findings); Stage 4 includes Chapter 5 (Discussion); and Stage 5 includes Chapter 6 (Conclusions). Further details on the research process are provided in Chapter 3.

Figure 1

Five-Stage Research Process



Overview of the Literature Review

Chapter 2 presents a brief review of the anti-doping literature and the theories used to frame this dissertation. The first part of the chapter, Context, is designed to provide general context to the research problem. To do this, it offers an overview of the problem of doping in

sports as well as a succinct description of the world's anti-doping system. It begins with a historical review of doping in sports and the first steps taken by sports authorities to mitigate the problem. Next, it discusses the evolution of anti-doping from random efforts to the establishment of a global system. Finally, it provides a detailed description of the current Code compliance framework in anti-doping.

The second part of the chapter, Conceptual Framework, outlines specific theories selected to frame the research question and discuss the findings of the study. This study is grounded in a constructivist paradigm, where meaning is built from the theories reviewed and the data analyzed from one stage to the next of the research process.

This second part of the chapter starts with an analysis of the general theories used to examine compliance in anti-doping. The analysis begins with an introduction to the Enlightenment, also known as the Age of Reason and a critical turning point for the consolidation of the Scientific Revolution (Cohen, 1985). Following the Enlightenment, the focus shifts to constructivism, a paradigm that evolved in the late 19th century, providing a new view to understanding reality, knowledge, and research (Bagnoli, 2017). Constructivism proposes that knowledge is built based on contingency, human perception, and social experience (Gellman, 2019). This widens the spectrum of action of the scientific method and, in particular, of the social sciences.

Thereafter, contingency theory is used to highlight the importance of context in organizational performance. The theory suggests that the situation where an organization functions defines the best way to structure it. The premise of this theory is that the proper alignment of situational variables and organizational strategy will translate to the best

performance possible (Betts, 2003). This is particularly relevant when trying to implement international policy at the national level, as it is the case in anti-doping.

Next, political economy and international relations theories, through three of their most relevant theories (i.e., realism, liberalism/neoliberalism, and Marxism), are used to understand the potential impact of different regimes on their compliance with international regulation. In this context, international relations theories are primarily categorized by the emphasis they place on specific aspects associated with the way nations and subnations coexist and benefit from interacting with each other within the global arena (McClelland & Pfaltzgraff, 2019).

In addition, this section of Chapter 2 includes a description of compliance in light of some of the most relevant theories on the subject. In broad terms, compliance refers to the degree of conformity with which populations behave in relation to what a specific regulation establishes (Etienne, 2010). This section addresses the different concepts associated with compliance but pays special attention to responsive regulation (Braithwaite, 2002), which proposes that policy and regulatory tactics should be developed within a pyramid model, where at the bottom, cooperation strategies are emphasized, and, progressively, toward the top, deterring castigatory tactics are implemented only when the more collaborative strategies at the bottom have not been successful. This section also highlights the importance of the motivations surrounding compliance: normative motivation, social motivation, and calculated motivation (Winter & May, 2001).

Lastly, this section presents the role of culture on NADO performance and compliance. In this context, Hofstede's cultural dimensions were important to this research because NADOs function under the umbrella of the cultures that shape them. Therefore, it is necessary to see how these different cultural contexts may affect Code compliance.

Overview of the Research Design

A qualitative study was conducted using basic interpretive methodology. Rather than using a comparative research design to juxtapose the perceptions of participants on the factors affecting NADOs' compliance across the two countries, this study conducted an analysis in two cases to achieve a deeper understanding of the problem as a whole. The goal was not to compare the situation in Peru and Bolivia but rather to enrich the results by capturing the diversity and the subtle differences of both contexts by means of triangulation. Therefore, the idea was to tap into differences within an heterogeneous sample to achieve common and greater understanding of the subject in question.

Merriam (2009) stated that qualitative research attempts to see reality through the eyes of people. Creswell and Plano Clark (2007) and Shank (2002) added that qualitative research seeks to interpret the world by exploring and discovering meaning through the experiences of the participants.

A qualitative investigation is suitable when answers to the research questions are best achieved through the perceptions of people (Creswell, 2008). Therefore, because of the limited research on the performance and compliance of NADOs and the exploratory nature of this study, this dissertation aimed to provide understanding, build concepts, and construct meaning on the issue of compliance from the views of the subjects; it did not intend to establish relationships between variables or test causality (Creswell, 2003, 2008; Leedy & Ormrod, 2005; Merriam, 2002; Shields & Rangarajan, 2013).

In addition, due to the exploratory nature of the study, a basic interpretive qualitative design was chosen for this dissertation in order to answer the research question in the most appropriate way. This qualitative design provided the freedom (i.e., without the need to endorse any specific qualitative design) to use different qualitative methods required for the study and the knowledge to grasp the complexity of the situation, providing depth and detail through the experiences of the participants (Sandelowski & Barroso, 2010).

According to Merriam (2002), the main instrument for data collection in qualitative research is the investigator. This is because of the researcher's capacity to reach out, interact, and connect with the participants in ways that other data collection techniques cannot. Although there are several methods to collect data in qualitative studies, according to Marshall and Rossman (2016), the most used are observation, document review, and in-depth interviews. Given the exploratory nature of this study, document review and in-depth interviews were chosen.

The sample for this study was obtained from a population of anti-doping experts from WADA, Peru, and Bolivia. Participant selection for this study was purposeful. Twelve research subjects were selected based on their knowledge and experience in anti-doping (Sargeant, 2012). According to Patton (2002) and Merriam (1998), researchers use purposive sampling (i.e., nonrandom) methods to gather rich information from the subjects: information from which the researchers can learn the most. Further, Merriam (2002) highlighted the importance of having sufficient participants to address the research questions. Although the number of participants in qualitative research is not calculated using formulas as in quantitative research, purposive sampling allows investigators to select key individuals from whom the researcher can learn a great deal about the research topic (Patton, 2007; Tongco, 2007).

This dissertation concentrated on understanding the factors that affect Code compliance of the NADOs in Peru and Bolivia through the perceptions of some of the countries' anti-doping experts. This research design provided a deeper understanding of the NADOs' compliance status while also identifying the factors that affect their ability to achieve basic compliance with the Code.

Further details on the research design can be found in Chapter 3.

Chapter 2: Literature Review

This chapter presents a brief review of the anti-doping literature and the theories used to frame this dissertation. The objective of this literature review is to describe the current approach to Code compliance in light of the research problem and the relevant theories. The first part, Context, is designed to provide general context to the research problem. To do this, it offers an overview of the problem of doping in sports as well as a succinct description of the world anti-doping system. It begins with a historical review of doping in sports and the first steps taken by sports authorities to mitigate the problem. Next, it discusses the evolution of anti-doping from random efforts to the establishment of a global system. The second part of the chapter, Conceptual Framework, examines the specific theories selected to frame the research question and discuss the findings of the study. This study is grounded in a constructivist paradigm, where meaning is built from the theories reviewed and the data analyzed from one stage to the next of the research process.

The purpose of this research was to identify and understand the factors that affect Code compliance of the NADOs in Peru and Bolivia through the perceptions of the participants. Likewise, this study sought a dialogue between the theories within the framework of an action-based approach that aimed at providing practical solutions to improve the current compliance strategies. Nevertheless, it is important to note that the theories presented in this chapter were utilized to guide the research process; they were not used to forcefully fit the results of the study within them. Ultimately, the data were expected to have a voice of their own.

There is significant research on the history of doping in sports and the effects of doping on health. This is in large part because the use of substances to enhance athletic performance is as old as the practice of sports itself. In this sense, the overall impact of doping in sports has been

well researched and documented. Furthermore, although not yet comprehensive, recent studies have been published on the effectiveness of specific anti-doping programs (e.g., education and testing programs) and the functioning of anti-doping organizations in relation to governance, independence, and conflicts of interest. While these studies offer valuable understanding on the issue of doping in sports and the overall situation of the current anti-doping system, they provide almost no information on NADOs' Code compliance.

Context

The background given in this chapter is intended to give general context to the research problem. To achieve this, it provides a summary of the historic and current situation of doping in international sports in addition to a brief account of the world anti-doping system. It begins with a historical examination of doping in sports and the earliest actions conducted by sports leadership to alleviate the problem. Next, it reviews the growth of anti-doping from its initial unsystematic efforts to the formation of a global structure. Finally, it closes the first part of Chapter 2 by providing a detailed description of the current approach to compliance in anti-doping.

Doping in Sports

From inception, the history of anti-doping has been focused on detection and deterrence in elite sports. Nevertheless, the doping epidemic has grown beyond the realm of competitive sports, becoming a threat to public health (Backhouse et al., 2014). Therefore, there is an urgent need to develop national anti-doping programs that are effective at preventing and deterring doping in society.

In his article in Sports Integrity Initiative, Brown (2017) stated:

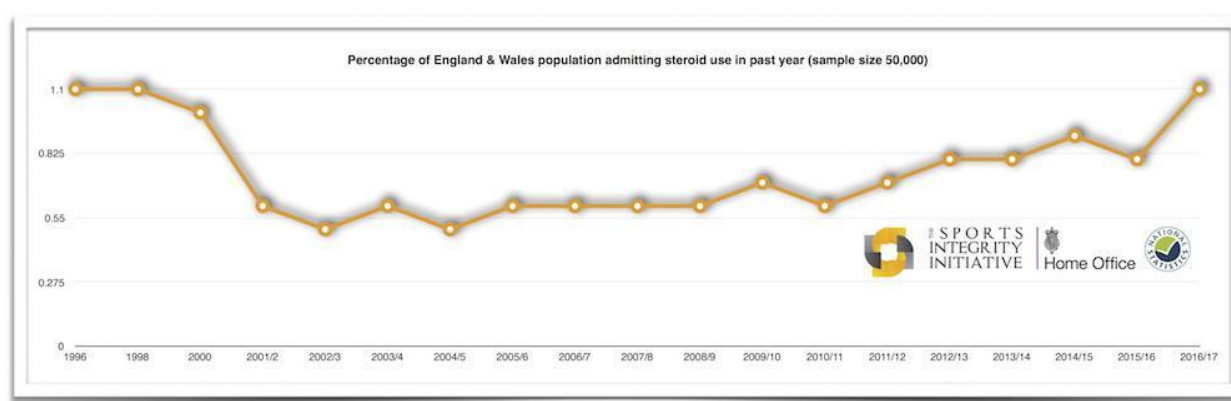
The UK government's Advisory Council on the Misuse of Drugs (ACMD) is examining the use of performance and image-enhancing drugs (PIEDs) in

society, and will hold an evidence-gathering day on 26 September at the Kia Oval, London. Last month, the Home Office's annual Crime Survey for England and Wales (CSEW) Drug Misuse Report revealed that the use of anabolic steroids had hit a nine-year high, with the rise in use particularly pronounced amongst young people. (para.1)

Figure 2 shows the percentage of people from England and Wales who admitted using steroids between 2016 and 2017.

Figure 2

Percentage of England and Wales Population Admitting Steroid Use in the Past Year



Note. From “Advisory Council on Misuse of Drugs Examining PIED Use,” by A. Brown, 2017, August 31 (<https://www.sportsintegrityinitiative.com/advisory-council-misuse-drugs-examining-pied-use/>). Copyright 2016 by Sports Integrity Initiative. In the public domain.

When it comes to competitive sports, the use of substances to enhance athletic performance is as old as the practice of sports itself. Cashmore (2000) wrote, “Competitors in the ancient Greco-Roman games were known to eat animals’ parts, such as horns or the secretions of testes, which they thought would confer the strength of bulls, for example” (p. 191). The Greeks, Cashmore added, regularly utilized different types of plants to both enhance performance and recover from injuries. Astrand and Rodahl (1986) defined doping in sports as the use or administration of substances foreign to the body with the sole purpose of enhancing athletic performance.

During modern times, the professionalization of sports brought along a dramatic increase in the use of stimulants (Jones & Pichot, 1998; Lardon, 2008). Long-distance walkers and cyclists during the late 19th century used different products and substances, such as coca leaves, caffeine, nitroglycerine and heroin, among others, to boost endurance and reduce fatigue (Heggie, 2012).

Early in the 20th century, doping took its first recorded death during the 1904 Olympic Games in St. Louis, Missouri. Marathon runner Thomas Hicks of the United States died after consuming large doses of strychnine and brandy throughout the race (Todd, 1987).

During the second half of the 20th century and with the rapid development of science, medicine, and technology, the use of hormones became a popular practice among elite athletes (Dawson, 2001). Olympic weight lifters from both the Soviet Union and the United States were pioneers at using Dianabol, an anabolic steroid originally developed to help burn patients heal faster that also makes the human body gain muscle mass and strength (Llewellyn, 2017). The use of anabolic steroids in sports grew rapidly because during its early stages doping was not regulated (i.e., in the 1950s and 1960s). Some of the sports that were initially affected were football, athletics, skiing, and cycling (Cashmore, 2000).

During this period, sports scientists developed two classifications for performance-enhancing drugs: restorative and ergogenic (Denham, 2000). According to Denham (2000), restorative substances are used to keep athletes playing while injured or in pain. These drugs (i.e., anti-inflammatories, analgesics, muscle relaxants, cortisone, and others) reduce or eliminate pain for short periods but can cause significant damage to the body over time (Vipene & Amasiatu, 2015). On the other hand, according to Denham (2000, 2009), sports men and women use ergogenic drugs exclusively to enhance performance. Ergogenic drugs are, among others,

anabolic steroids, amphetamines, human growth hormone, Erythropoiesis-stimulating agents, and others.

Doping in sports peaked during the 1980s, 1990s, and early 2000s (Chesanow, 2016). Chesanow (2016) suggested that rumors of doping are behind the incredible athletic performances of many former Soviet Union and Eastern Germany athletes. Ben Johnson's 100-meter dash in Seoul in 1988 and Lance Armstrong's infamous case are only a handful of examples of the most notorious cases in the history of doping in sports, but there are many more. Doping may have health, financial, and ethical implications in society.

The 2016 Russian doping scandal, where WADA investigations unveiled the state-run doping program that Russia had in place during the 2014 Winter Olympics in Sochi, is a more recent example of the magnitude of the doping problem in sports (The Editorial Board, 2016). The Russian case brought the debate to a whole new level, demonstrating that doping is not only the practice of a few unscrupulous individuals but also a systemic problem that runs through the veins of sports organizations (Maese, 2016).

Doping in Russia, as it was revealed by WADA's investigations in 2016, was sponsored by the government. Since the Sochi Olympics, Russia has had dozens of medals taken away due to anti-doping rule violations: more than double than any other country in the world (Kramer, 2020). WADA's investigations revealed that over one thousand athletes across different Summer and Winter sports and para sports between 2011 and 2015 benefited from the largest doping scheme in the history of sports (Ostlere, 2016; Ruiz, 2016).

The Russian scandal raised questions about the effectiveness of the World Anti-Doping Program, which aims at promoting a level playing field for athletes across sports and countries. Critics of WADA suggest that the world anti-doping system needs urgent reform to ensure sports

remain clean. For this, they say, there is a need to reevaluate WADA's governance structure, funding system, and compliance program, as well as redefine the agency's conflicts of interest policies in order to remain independent from sport (Radnedge, 2018). Although revision of the World Anti-Doping Program may be necessary to maintain the fight against doping in sport currently, it is important to carefully assess the advantages and disadvantages of reforms, including the possible impacts of these reforms on established systems, functioning networks and practices, as well as the benefits and drawbacks of having new strategies and procedures and involving new actors within the system (e.g., having an independent WADA president or including athletes with voice and vote in WADA's Executive Committee).

Doping Prevention

The 2021 Code (WADA, 2020d) defines education as, "The process of learning to instill values and develop behaviors that foster and protect the spirit of sport, and to prevent intentional and unintentional doping" (p. 168). In addition, the 2021 International Standard for Education defines anti-doping education as, "Delivering training on anti-doping topics to build competencies in clean sport behaviors and make informed decisions" (WADA, 2020c, p. 8). All the rules and responsibilities of signatories related to information and education programs are outlined in the Code, the International Standard for Education, and the Information/Education Guidelines to Prevent Doping in Sport.

The overall concept behind prevention in anti-doping is that informed and educated athletes are better equipped (e.g., having resilience to group pressure and solid moral principles) to resist the temptations of doping even when they are immersed in doping-prone environments (Erickson et al., 2015; Overbye et al., 2013).

To achieve this, NADOs play a key role within the World Anti-Doping Program, considering that they are typically the first contact between anti-doping and athletes, giving them a strategic position within the anti-doping community to combat doping and to protect clean sport (Gatterer et al., 2020). In this context, NADOs must ensure athletes are exposed to quality information and education programs early in their careers.

Prevention in anti-doping is typically divided in two main areas: (a) information consisting of essential anti-doping knowledge and (b) education with a focus on values-based education (Donovan et al., 2002; WADA, 2020b). However, further research conducted by Backhouse et al. (2014) classify prevention into five categories, which seem to be effective at tackling doping behaviors: (1) “knowledge-focused,” (2) “affective-focused,” (3) “social skills training,” (4) “life skills training,” and (5) “ethics and value-based” (p. 53).

In addition, research suggests that ex post control (e.g., testing and sanctioning) is not as effective as ex ante control (e.g., information and education; Gatterer et al., 2020). This hypothesis is corroborated by the still limited results of the current compliance policies and testing strategies (between 1% and 2% of positive cases per year), in spite of the enhanced detection and deterrence methodologies implemented (Overbye, 2017; WADA, 2019b).

However, the scientific literature suggests that today’s foundation in doping prevention is based on both deterrence strategies (e.g., testing and sanctions) and education strategies (e.g., anti-doping education, awareness, and information; Gatterer et al., 2020).

Anti-Doping Testing Figures

WADA published the first global anti-doping statistics in 2003. In almost 2 decades of testing, the number of samples collected has increased considerably, reaching 344,177 in 2018. This represents a 6.9% increase from 2017 where 322,050 were collected (WADA, 2019b). As

the number of doping samples gathered increases, the number of adverse analytical findings (AAFs) should also increase. In theory, this should enhance the deterrence effect, but this may not be accurate.

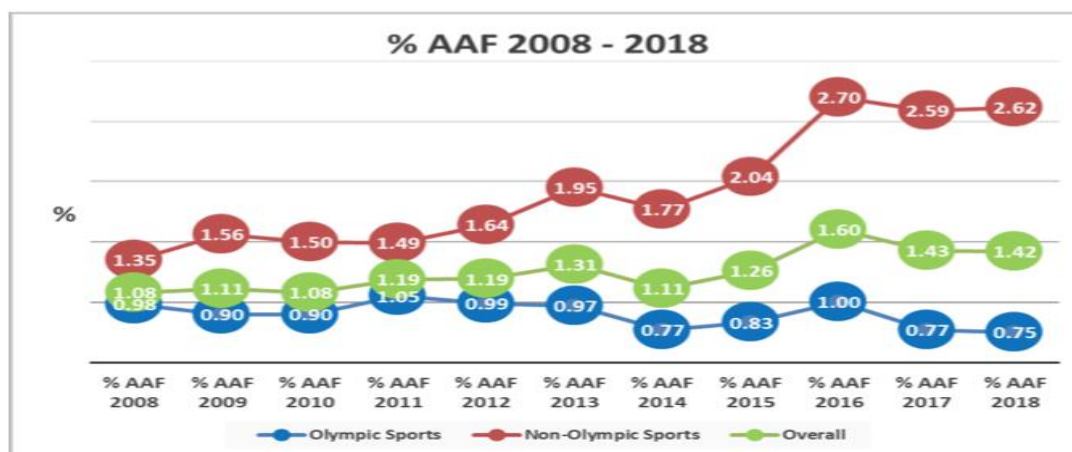
Anti-doping figures vary slightly from year to year due to specific circumstances. For example, between 2016 and 2017 the number of AAFs decreased by 1.60% (WADA, 2018b). According to WADA's report, this difference happened mainly due to the lower number of cases of Meldonium. Meldonium is a drug mainly used in the treatment of heart-related diseases, as it helps to increase blood flow and oxygen through the arteries, which may also boost athletic performance (Dambrova et al., 2016). It was banned for the first time in WADA's Prohibited List in 2016, resulting in a high number of AAFs that year (WADA, 2018b).

Overall, the percentage of AAFs and atypical findings combined, relative to the samples collected between 2010 and 2017, is still very low. WADA's 2018 testing figures, published in December 2019, confirmed this trend. Despite a 6.9% increase in the overall number of samples collected between 2017 and 2018, there was a slight decrease in the total percentage of AAFs between the 2 years, from 1.43% to 1.42%, respectively (WADA, 2019b).

Although WADA-overseen testing figures for both blood and urine only yield between 1% and 2% of AAFs tests every year (see Figure 3), this does not mean the numbers reflect the real prevalence of doping. A study conducted by Ulrich et al. (2017), on behalf of Harvard University, surveyed 2,167 athletes at two major athletics competitions in 2011: The World Championships (WC) in Daegu, South Korea, and the Pan-Arab Games (PAG) in Doha, Qatar. The study, which utilized a randomized response technique, estimated prevalence of past-year doping in athletics of 43.6% with a 95% CI [39.4, 47.9] at the WC, and an even higher 57.1% with a 95% CI [52.4, 61.8] at the PAG.

Figure 3

Percentage of Adverse Analytical Findings (AAFs) 2008–2018



Note. From “2018 Anti-Doping Testing Figures,” by World Anti-Doping Agency, 2019, p. 3 (<https://www.wada-ama.org/en/resources/laboratories/anti-doping-testing-figures-report>). Copyright 2019 by the World Anti-Doping Agency. In the public domain.

Although some questions have been raised on the methodology used by Ulrich et al. (2017) to calculate doping prevalence, Ulrich et al. suggested that “doping appears remarkably widespread among elite athletes and remains largely unchecked despite current biological testing. The survey technique presented here will allow future investigators to generate continued reference estimates of the prevalence of doping” (p. 1). Other prevalence studies suggest that 14% to 39% of adult elite athletes intentionally used doping to enhance performance (de Hon et al., 2014).

The difference between prevalence data and the percentage AAFs reported by WADA is an indicator that (1) there is an urgent need to have more and improved methodologies to measure the real extent of doping in sports; and (2) as prevalence is measured more accurately, it will be necessary to bring it to terms with biological testing statistics. As de Hon et al. (2014) indicated, “it is clear that current doping control test results show a distinct underestimation of true doping prevalence” (p. 1). Thus, in terms of overall testing effectiveness and meaningful use

of resources, it makes sense to pay closer attention to the matter. A comprehensive approach may require the collection and analysis of more data on NADO performance, prevalence, doping attitudes, testing effectiveness, education programs, and so forth.

With regard to anti-doping figures for Latin America, although WADA publishes global anti-doping statistics, there is limited information on the region. According to WADA's Latin America Regional Office's statistics (WADA, 2016a), there were 4,773 samples collected in 2015 in South America: 1.40% (69) of these were AAFs. All that can be currently gleaned from this data is that these numbers are in line with the global testing figures.

Table 1 shows a summary of testing figures (i.e., number of tests conducted per year by the NADO as testing authority) for Bolivia and Peru between 2015 and 2018 (WADA, 2016b; WADA, 2017d; WADA, 2018b; WADA, 2019b). The data show that limited testing was conducted in both countries within the 4-year span. Further analysis and interpretation of this data will be provided in Chapters 4 and 5.

Table 1

2015–2018 Testing Authority Figures for Bolivia and Peru

Country	2015	2016	2017	2018
Bolivia	0	211	0	14
Peru	9	314	499	630

The World Anti-Doping Agency

After World War II, anti-doping was born due to the increasing number of deaths in sports presumably caused by doping (Minovi, 2007). Governments and the International Olympic Committee (IOC) began to express their concerns about the problem of doping in sports. However, neither committed to a global effort. Therefore, at the beginning, anti-doping

was limited to some sports organizations and national governments defining their own rules, sanctioning processes and lists of prohibited substances (Ljungqvist, 2017).

However, the abundant number of doping cases during the 1980s and 1990s along with the implications they brought to individual athletes and sports organizations forced the IOC and governments to take concrete steps toward regulating doping in sports (Hunt, 2011). It was in this context and shortly after the Festina Affair, which unveiled widespread doping in cycling, that the IOC had the first World Conference on Doping in Sport in 1999 in Lausanne, Switzerland, where sports authorities decided that it was necessary to create the World Anti-Doping Agency (Fincoeur et al., 2015).

WADA was formed in 1999, starting a new era in the history of anti-doping (Ljungqvist, 2017). Some experts believe that the establishment of WADA and the 1989 Council of Europe's Anti-Doping Convention are two of the most significant efforts at standardizing anti-doping policy and practice (Backhouse et al., 2014).

The IOC established WADA in 1999 as an independent organization made up and funded (at least in principle) by members of the IOC and governments (WADA, n.d.-k). However, the agency was subsidized almost entirely by the IOC during its first years (Hunt, 2011). Although WADA had been created after the 1999 Lausanne Declaration on Doping in Sport, where intergovernmental organizations, governments, and the IOC (amongst others relevant stakeholders) agreed to fund the agency, there was no international law that obliged countries to participate.

This changed in 2003 during the second World Conference on Doping in Sport in Copenhagen, Denmark, where governments confirmed their pledge to fund WADA's budget by signing the Copenhagen Declaration (Le Roux, 2004). This text was later discussed in 2005 at

the United Nations Educational, Scientific and Cultural Organization's (UNESCO) General Conference, resulting in the adoption of the 2005 International Convention against Doping in Sport. The Convention formalized previously scattered anti-doping efforts and rules into one coherent and reasonable framework for anti-doping (Jedlicka & Hunt, 2013). Furthermore, it represented the international anti-doping law. With the Convention in place, governments found themselves in a more advantageous position to fund WADA and also better able to establish their own national anti-doping organizations, providing them with resources to implement anti-doping programs (UNESCO International Convention against Doping in Sport, 2005).

The UNESCO Convention Against Doping in Sport

On October 19, 2005, the UNESCO International Convention Against Doping in Sport (Convention) was adopted by government authorities and sport officials, formalizing and taking the first steps toward standardizing the World Anti-Doping system.

Through the Convention, countries agreed that doping is a public health risk and threat to the values of sport. The Convention came into force on February 1, 2007 (UNESCO, n.d.-b). Although WADA had been created in 1999, the Convention became a useful tool by which governments could now make official their commitment to clean sport.

However, some experts suggest that the Convention and the overall world anti-doping program are not achieving their goals (Kayser & Smith, 2008). Kayser and Smith (2008) believed there are "inherent flaws and contradictions in the logic of anti-doping policy" (p. 1). In spite of the criticism, "The Convention allows governments to align their domestic policies with the World Anti-Doping Code, thus harmonizing the rules governing anti-doping in sport and public legislation" (WADA, 2017b; para. 3).

The World Anti-Doping Code and International Standards

The creation of WADA and the formalization of an anti-doping system have brought a unified approach toward fighting doping in sports. The Code, developed by WADA and revised by all Code signatories, aims at helping stakeholders implement adequate anti-doping programs (David, 2017). David (2017) explained that the Code harmonizes previously random and uncoordinated efforts into one cohesive global strategy, defining the rules and the anti-doping responsibilities of all Code signatories. Hughes (2015) agreed saying that the Code “provides consistency of anti-doping policies across sports and across international boundaries” (p. 167).

WADA described the Code as the following:

The World Anti-Doping Code (Code) is the core document that harmonizes anti-doping policies, rules and regulations within sport organizations and among public authorities around the world. It works in conjunction with six International Standards which aim to foster consistency among anti-doping organizations in various areas. (WADA, n.d.-b, para. 1)

The first Code entered into force in 2004. Since then, governments and sports organizations have widely accepted and supported it as an effective instrument at standardizing anti-doping activity around the world (WADA, n.d.-b). However, the Code requires constant updating in order to remain current in a fast-changing doping environment (Hughes, 2015). The Code’s latest revisions were in 2009 and 2015 (WADA, n.d.-b). The new WADA Code will enter into effect on January 1, 2021 (Canadian Centre for Ethics in Sport, n.d.).

In addition to the Code, WADA’s International Standards describe, coordinate, and harmonize the specific technical aspects of anti-doping (Hughes, 2015; WADA, n.d.-g). There are currently six International Standards for the following areas: Prohibited List, Testing and Investigations, Laboratories, Therapeutic Use Exemptions, Protection of Privacy and Personal Information, and Compliance by Signatories. As of 2021, there will be two more standards: the

International Standard for Education and the International Standard for Results Management. WADA develops all International Standards through an extensive internal and external consultation process (WADA, n.d.-g).

The International Standard for Code Compliance by Signatories (ISCCS) entered into effect in early 2018. The ISCCS, according to WADA, creates a framework for anti-doping compliance that outlines:

- Code Signatories' roles and responsibilities;
- the ways WADA supports Signatories in achieving, maintaining and, where applicable, regaining Code compliance;
- a range of graded, predictable and proportionate sanctions for cases of non-compliance by Signatories; and, a process for determining non-compliance and consequences. (WADA, n.d.-d, ISCCS section, para. 2)

Anti-Doping Governance

Hassan (2010) argued that many sports organizations of the 21st century still use organizational structures and legislation models that are not fit to meet the needs of modern-day sport. This can impact organizational effectiveness.

According to Axon (2016) and Keating (2018), sports organizations have grown and changed in the past decades, and they have suggested that WADA's governance structure must evolve accordingly. Axon (2016) further emphasized that WADA's governance (created 20 years ago) is outdated and does not allow the agency to operate independently from the influence of the IOC. WADA's governance divides decision-making powers between the IOC and governments. Furthermore, the present arrangement allows members to sit on the agency's Foundation Board and Executive Committee while still holding positions within the sports movement. In addition, until 2019, it also allowed WADA's president to have a leading role in the IOC or the government simultaneously (WADA, n.d.-f). According to Axon (2016), this overlap of functions can have significant consequences, especially when it comes to policy-

making. However, one of WADA's current governance reforms establishes that future presidents of the agency must be independent and remunerated (WADA, 2018c).

WADA's critics believe that the agency's governance structure prevents the organization's capacity to do its job: catching dopers, policing sports, and developing adequate policy (Pells, 2019). Travis Tygart, CEO of the United States Anti-Doping Agency (USADA) said to Capitol Hill on February 2017, during a subcommittee hearing on the problem of doping in sports, that "you cannot both promote and police your own sport," referring to the fact that members of WADA's Foundation Board and Executive Committee are also in charge of numerous international federations (Maese, 2017).

According to Gibson (2015), from a managerial perspective, the problem is not rooted in WADA's principles or in the organization's capacity to get the job done. He stated that the issue lies in the way the agency's founding fathers structured its governance, rules, and policies. Gibson continued to say they "clipped its wings" from inception.

The key issue is independence. While WADA still depends on governments and the IOC for funding and decision-making, independence becomes a challenge. Gibson (2015) added that a radical but effective solution would be (1) to get rid of members from the Olympic Movement from the agency's Foundation Board and Executive Committee and (2) for WADA to be provided with real powers to sanction sports and nations for noncompliance reasons, which can now be done through the ISCCS to a certain extent. Gibson, Maese (2017), Axon (2016), and Tygart of the USADA have advocated that by freeing WADA from the influence of the Olympic Movement, the agency would be able to better fulfill its mandate: develop policy and monitor compliance.

With respect to Latin America, the political, economic, and social instability in the region may affect the governance of NADOs and their capacity to perform in line with the Code.

Santiso (2001) argued that the way governance “captures the manner in which power is exercised in the management of a country’s economic and social resources for development is a multifaceted concept” (p. 2). He added, “While democracy tends to refer to the legitimacy of government, good governance refers to the effectiveness of government” (p. 2).

WADA’s data indicate that governments and National Olympic Committees (NOCs) in Latin America may influence the strategic and operational work of the NADOs in the region. This is because the NADOs’ board members and staff, in many cases, also hold positions in the NOC or the government (M.J. Pesce, personal communication, June 22, 2018). This duality of functions has the potential to generate conflicts of interest. For example, a government employee from the sports ministry that also works at the NADO may hesitate to test national level athletes with whom they have a personal or professional relationship. Tygart referred to this type of conflict of interest as “a fox guarding a henhouse” (Maese, 2017).

In light of these issues, discussions between the IOC and WADA after the 2016 Rio Olympics resulted in the following agreements: (1) restructuring WADA’s governance was necessary and (2) independence should be the focus of WADA’s governance restructuring (WADA, 2018c). WADA’s independence would guarantee transparency throughout the decision-making process, policy-making, and strategy formulation (Maese, 2017).

In this context, the Russian doping scandal unveiled the problems surrounding the effectiveness of the anti-doping system, particularly in relation to governance, independence, conflicts of interest, and the power struggles between WADA and the IOC (Pells, 2019). Thus, in September 2016, WADA executives held a series of multistakeholder Think Tanks in Lausanne,

Switzerland, bringing together members of the Olympic Movement and governments under the theme “Addressing Challenges to the Current Anti-Doping System.” Authorities reached the following agreements during the meetings:

1. Centralized World Anti-Doping Code (Code) compliance monitoring by WADA with proportionate and graded sanctioning powers. This would include more funding to ensure that regular auditing is being conducted and that the Agency is able to impose fines on non-compliant organizations.
2. Enhanced WADA Investigations with increased funding and further cooperation with law enforcement and Government authorities.
3. A comprehensive whistle-blower policy and program that provides greater assurance to those that come forward with valuable information.
4. An improved Doping Control Process by Anti-Doping Organizations worldwide, which would include increased training for Doping Control Officers with mandatory audits.
5. A more rigorous WADA-accredited laboratory monitoring process and stronger requirements for the autonomy of laboratories.
6. Agreement by the Sports Movement and Governments that WADA is the regulatory body, which governs all anti-doping activities; and, that the Agency requires increased contributions to support its enlarged scope.
7. Governments to embrace the legislative commitment through the UNESCO International Convention against Doping in Sport.
8. Further discussion aimed at strengthening WADA’s governance model. (WADA, 2016c, para. 1)

WADA’s current governance structure is composed of a Foundation Board, an Executive Committee, and a number of committees, expert groups, and panels. The following WADA committees advise and guide the Agency’s programs (WADA, n.d.-f).

1. Athlete Committee
2. Compliance Review Committee
3. Education Committee
4. Finance and Administration Committee
5. Gene Doping Expert Group
6. Health, Medical, and Research Committee

7. Nominations Committee
8. Laboratory Expert Group
9. Prohibited List Expert Group
10. Technical Document Specific Sport Analysis Group
11. Therapeutic Use Exemptions Expert Group
12. WADA Ethical Panel

In addition, WADA's Foundation Board has 38 members, equally represented by the Olympic Movement and governments. The Foundation Board is WADA's highest decision-making group. Being a numerous group, the Foundation Board delegates the management the Agency, including the monitoring of activities and the administration of assets, to the Executive Committee (WADA, n.d.-f). The Executive Committee has 12 members and governments and is also equally represented by the Olympic Movement.

The Olympic Movement and governments fund WADA's approximate USD 30 million annual budget using a formula of matching dollar-for-dollar contributions; the Olympic Movement matches every dollar given by the governments (WADA, n.d.-e). WADA is a Swiss foundation that has its headquarters in Montreal, Canada. The agency also has four Regional Offices: Montevideo in the Americas, Cape Town in Africa, Tokyo in Asia, Lausanne in Europe, and the Office of the President in Europe (WADA, n.d.-i).

Definition of Compliance in Anti-Doping

To assess the compliance of Peru's and Bolivia's NADOs and subsequently identify the factors that affect them, it was first necessary to define compliance in the anti-doping context. To do this, a two-step process was implemented. First, two semistructured interviews with WADA

compliance experts were conducted. Second, the results of the interviews were used to get an initial understanding of compliance and guide the document review process.

With the 2015 Code, compliance monitoring became one of WADA's most important mandates and a key component of the world anti-doping system. Prior to 2015, WADA's Code compliance activities mainly focused on the review of signatories' anti-doping rules. Today, according to one WADA compliance expert, Subject 11, WADA's Compliance Monitoring Program centers all efforts on monitoring and assessing the compliance of signatories with an emphasis on rules and anti-doping programs.

Developing stronger compliance mechanisms to further harmonize rules and build equality for athletes was necessary because prior to 2015—despite the existence of the Code and the International Standards—signatories were still interpreting compliance in a way that was inconsistent and unequal across nations and sports (Qvarfordt, 2019). This was evidence that compliance with the Code and the International Standards was significantly different among signatories (Gray, 2018; Houlihan, 2014); it became clear that there was a need to reinforce the compliance approach.

Compliance Process. Under WADA's mission to promote and protect clean sport, one of its core objectives is to ensure signatories remain compliant with the World Anti-Doping Code. However, while WADA is responsible for developing and coordinating the Code, signatories are responsible for its implementation within their jurisdictions through adequate legal frameworks, sound governance principles, rules, and effective anti-doping programs. WADA monitors this through its Code Compliance Monitoring Program (WADA, n.d.-d).

Subject 11 and Subject 12, in line with the International Standard for Code Compliance by Signatories (ISCCS), described compliance as a three-step process:

- Step 1: Code acceptance. By accepting the Code, the signatory agrees to its principles; most importantly, the signatory agrees to develop and implement anti-doping programs in compliance with the Code. In the context of a particular legal framework (i.e., law, decree, ministerial resolution, etc.), an Anti-Doping Organization (ADO) is created and provided with sufficient resources.
- Step 2: Implementation of anti-doping rules. By implementing the Code, the signatory must adapt all anti-doping rules, regulations, and policies to adhere to the principles of the Code. Anti-doping rules vary depending on the type of ADO (i.e., NADO, International Federation, Major Event Organizer, and National Olympic Committee). Anti-doping rules ensure ADOs operate in line with the Code.
- Step 3: Enforcement and program implementation. By enforcing all adapted rules and policies, the signatory must ensure it implements effective Code-compliant anti-doping programs.

Once a signatory accepts the Code, it shall submit to WADA all proposed anti-doping legislation and rules for review before program implementation. WADA will then make sure all new regulations are in line with the Code and the International Standards (WADA, n.d.-c).

Subject 12 said that after a signatory has completed the first and second steps, it must develop comprehensive anti-doping programs.

The International Standard for Code Compliance for Signatories. In order to strengthen WADA's compliance strategy, on April 1, 2018, the ISCCS came into effect:

The purpose of the International Standard for Code Compliance by Signatories (ISCCS) is to ensure that strong, Code-compliant anti-doping rules and programs are applied and enforced consistently and effectively across all sports and all countries, so that clean athletes can have confidence that there is fair competition on a level playing field, and public confidence in the integrity of sport can be maintained. (WADA, n.d.-g, Code Compliance by Signatories section, para. 1)

The ISCCS, like all other International Standards, is a mandatory standard for Code signatories. It is a vital part of the World Anti-Doping Program (WADA, 2017c). The ISCCS presents the following: the roles and responsibilities of relevant parties involved in the compliance operations, how WADA can assist signatories in remaining compliant with the Code, the ways by which WADA will monitor signatories' compliance, the opportunities signatories will have to address nonconformities, the specific process for noncompliance, specific consequences associated with noncompliance, and steps for compliance reinstatement (WADA, 2017c).

Subject 11 said that the ISCCS aimed to describe (a) how compliance is monitored, (b) the consequences of noncompliance, and (c) the conditions for compliance reinstatement (WADA, 2017d). This is to be done in coordination with WADA's Prioritization Policy that ranks countries and International Federations within a tier system¹ based on their level of success in competitive sport and doping risks (WADA, 2017b).

WADA's Prioritization Policy came into force on April 1, 2018, along with the ISCCS. According to WADA records, the Prioritization Policy was developed to reflect WADA's resources in managing compliance across the world and sporting performance of countries and doping risks of individual sports. Under these basic criteria, the Prioritization Policy allows WADA "to exercise the power given to it in the ISCCS to prioritize its compliance monitoring and enforcement efforts, by focusing on certain categories of Signatories, chosen based on objective factors identified in the ISCCS" (WADA, 2017b, p. 1).

¹ "WADA will prioritize its compliance monitoring and enforcement activities with International Federations (IFs) and National Anti-Doping Organizations (NADOs) by categorizing them in three tiers, based on the criteria listed in ISCCS Article 8.2.2 and Article 8.2.4 and approved by the Compliance Review Committee (CRC). (WADA will keep that allocation under review and may change it from time to time based on objective factors and subject to approval of the CRC.)" (WADA, 2017b, p. 1).

As previously stated, WADA's tier system is an internal ranking system for countries, International Federations and soon² major event organizers. It was developed with the purpose of monitoring compliance while making an adequate use of the available resources. The current tier system for countries incorporates statistical data for the last four editions of the Olympic Games in combination with specific sports data derived from results at the world championship level. The tiers are divided into three levels: T1, T2, and T3 (WADA, 2017b), with T1 countries having the highest sports development.

Code Compliance Monitoring Program. According to Subject 11 and Subject 12, the 2015 Code amendments were mainly focused on compliance. Between 2015 and 2017 WADA created, expanded, and continuously strengthened ISO9001:2015 certified Code Compliance Monitoring Program (CMP), which aims to monitor signatories' anti-doping compliance, with an emphasis on quality anti-doping rules and programs.

However, even though policies have been enhanced, overseeing compliance and program implementation for hundreds of signatories remains a regular challenge for WADA (Houlihan, 2014). The situation is difficult, as government and overall institutional engagement with anti-doping is still low (Engelberg & Skinner, 2016; Gray 2018).

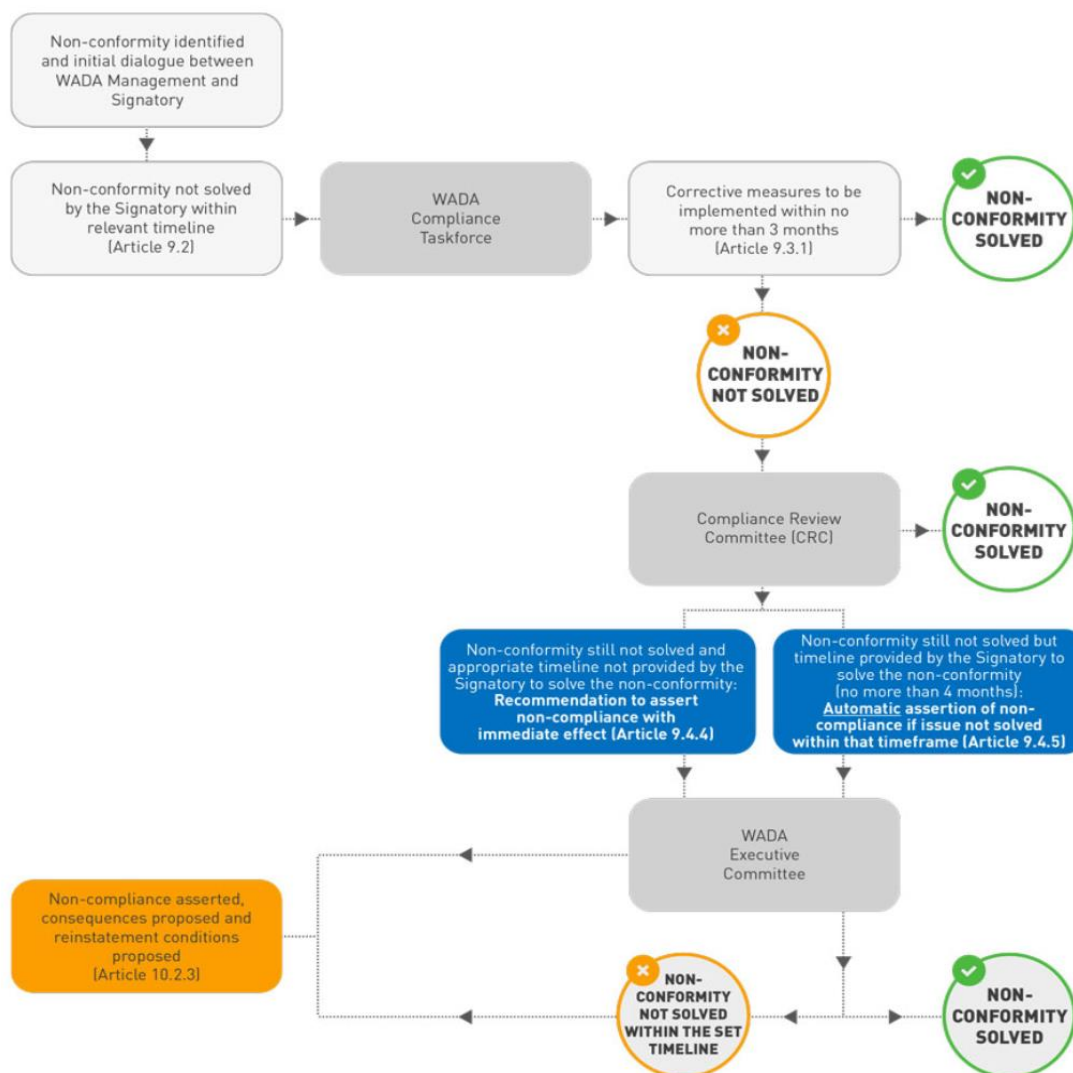
The CMP's governance consists of two main components: an internal Compliance Taskforce (Taskforce) and an external Compliance Review Committee (CRC; see Figure 4 for a visualization of this framework). Subject 12 explained that the Taskforce is composed of members from different WADA departments. It oversees and evaluates all possible cases of noncompliance within the framework of the CMP, assisting signatories with specific recommendations and addressing noncompliance cases within specific timelines. If issues are not

² IOC and International Paralympic Committee for the 2020 Olympic and Paralympic Games

resolved, the Taskforce may elevate a case to the CRC, which, upon analyzes and deliberation, must provide compliance recommendations and direction to WADA’s Executive Committee and Foundation Board (WADA, n.d.-d).

Figure 4

Compliance Monitoring Program



Note. From “World Anti-Doping Code – International Standard for Code Compliance by Signatories, April 2018” by World Anti-Doping Agency, 2017d, p. 25 (<https://www.wada-ama.org/en/resources/code-compliance/international-standard-for-code-compliance-by-signatories-isccs>). Copyright 2017 by the World Anti-Doping Agency. In the public domain.

Subject 12 stated that, as of January 2019, although the CMP uses various methods to monitor signatories' compliance, it mainly focuses on two to assess compliance under the framework of the Code and the ISCCS: The Code Compliance Questionnaire (CCQ) and the Audit Program. The CCQ and the Audit Program are supplemented by Desk Audits, Information Requests, and Mandatory Information Requests (WADA, n.d.-d).

Code Compliance Center. The Code Compliance Center, previously known as the CCQ, is one of the two most important components of the CMP, along with the Audit Program. It was developed by WADA in partnership with stakeholders in 2016 to evaluate signatories' degree of compliance with the Code and the International Standards (WADA, n.d.-d).

The 307-question self-assessment was sent by WADA in February 2017 to all NADOs and International Federations. Signatories had 3 months to complete and return it to WADA for review. The CCQ was divided into seven areas of compliance and noncompliance: Anti-Doping Administration & Management System, Budgeting and Reporting, Testing and Investigations, Results Management, Therapeutic Use Exemptions, Education, Data Privacy, and ADO information. Many but not all of these areas are described and analyzed in Chapter 4 (WADA, n.d.-d).

After receiving a CCQ from a signatory, WADA had the task of reviewing it and producing a Corrective Actions Report (CAR), which was sent to the signatory in the event that nonconformities were found. Signatories then had specific timelines in which to solve their corrective actions (CAs): 3 months for critical CAs, 6 months for high priority CAs, and 9 months for important CAs. Signatories thereafter were monitored based on WADA's Prioritization Policy (WADA, n.d.-d; WADA 2017c).

Failure to complete the CCQ may have had compliance consequences. The ISCCS describes them in detail. In general terms, WADA developed the ISCCS consequences under the principle of fairness, establishing graded sanctions that aim to be proportionate to the infraction committed and the tier category within which the signatory falls (WADA, 2017c; WADA, 2017d). Therefore, the ISCCS and the Prioritization Policy establish the following general criteria:

- Tier 1: Signatories in this group shall solve all critical and high priority CAs.
- Tier 2: Signatories in this group shall solve all high priority CAs.
- Tier 3: Signatories in this group will use the CAR for program development. Unless specific circumstances apply (e.g., no anti-doping development in the country for more than 2 years), failure to solve the CAR in this group will not trigger a compliance procedure.

On a related note, only a few questions within the CCQ were developed for noncompliance issues (e.g., information on strategy, human and financial resources, etc.). However, limited follow-ups have been conducted in order to assess whether they affected compliance, and to what extent.

The CCQ has provided WADA with the first ever all-around view of the state of anti-doping programs worldwide.

Audit Program. In the framework of the CMP, WADA conducts audits on NADOs and international federations. Audits are focused on technical matters and assess the auditees' compliance with the Code and the International Standards (WADA, n.d.-1)

Audits can be conducted in person, where an audit team is sent to visit the signatory, or remotely through a Desk Audit³ via an exchange of information over emails, letters, teleconferences, and so forth. Audits are obligatory under the ISCCS and are initiated by a Mandatory Information Request sent by WADA. Signatories cannot decline being audited. In the same way as the CCQ, post-audit and based on the audit findings, the audit team produces a CAR with specific deadlines within which the signatory must address the issues: 3 months for critical, 6 months for high priority, and 9 months for important. If deadlines are not solved, according to the ISCCS criteria, a compliance procedure could be initiated (WADA, n.d.-d; WADA, 2017c; WADA 2017d).

Although a wide range of circumstances, enumerated in Articles 8.2.2 and 8.7.1 of the 2019 ISCCS, can trigger audits (e.g., nonconformities detected in the CCQ, the results of an investigation, history of doping in a country, etc.), the ultimate purpose of an audit is to check the fitness and quality of a signatory's anti-doping program. This is necessary in order to deliver confidence to the sports community and the relevant stakeholders that the rights of clean athletes are being protected.

The sources of data used to evaluate the state of a signatory's anti-doping program in preparations for an audit include but are not limited to the following: CCQ, Anti-Doping Administration & Management System, WADA legal databases, WADA (or non-WADA investigation reports), media reports, and other relevant information.

Broadly speaking, according to Dennis (2018), classical auditing theories have centered on the financial aspects of an organization. Some of the most relevant theories are: (a) the police man theory, which mainly focuses on detecting fraud; (b) the lending credibility theory, which

³ Desk Audits will be a new component of WADA's Audit Program starting in 2020. Desk Audits have been added with the purpose of strengthening the overall compliance monitoring strategy.

uses organizational reports and data to maintain stakeholders' faith in the company; (c) the theory of inspired confidence, where external stakeholders demand accountability from management; and (d) the agent theory, where an agent is appointed (for auditing purposes) by stakeholders and management together in the interests of both (Hayes et al., 2005).

Some of these financial theories are useful in the context of the anti-doping industry. For instance, Limperg's (1932) theory of inspired confidence is based on accountability.

Accountability is not always achieved through systematic reporting from management to stakeholders, demonstrating that while self-reporting is good, it tends to be biased. In this context, outsiders (stakeholders) have little to no way of monitoring an organization from the inside; therefore, an audit can help guarantee the reliability and trustability of information.

In *Philosophy and Principles of Auditing*, Flint (1988) stated that there is a significant demand for independent auditing with clear purpose and intention in order to gather and evaluate reliable information, measuring it against specific standards, which generate important social and economic benefit for stakeholders and the society at large.

However, while financial theories such as the theory of inspired confidence are pertinent to the world's anti-doping system, their complexities may require a more flexible theoretical approach where the goal of the audit is to test the consistency of an ADO's information, practices, policies, and procedures (Davoren, 2019). Contingency theory takes into account all possible environmental factors (i.e., internal and external) during the audit process, allowing for a more comprehensive, multilevel approach to auditing. Most likely, this is a better fit for auditing in anti-doping.

Contingency theory is appropriate to auditing in anti-doping because, from a strictly theoretical perspective, it implies that one thing depends on other, potentially numerous, things

(Daft & Armstrong, 1989). Although typically audits in anti-doping are decided based on an issue (or a series of issues), it is important to be aware that the nonconformities are usually linked to other points of concern. For example, a repetitive problem during sample collection may be associated with poor knowledge of the doping control process, which is probably linked to insufficient Doping Control Officer training or possibly to lack of funding to plan and implement training.

Due to the multiple conditions and scenarios that can be found in the context of an anti-doping audit, Davoren (2019) stated that audits are loosely structured and task-oriented. With this type of framework, audit team members are responsible for the auditing of specific areas of the organization based on expertise, but at the same time they are able to navigate across areas depending on contingencies discovered during the audit process.

Compliance With the UNESCO Convention Against Doping in Sport. A consistent approach to monitoring States Parties' compliance with the Convention is paramount to the achievement of the Convention's vision and objectives. The UNESCO Anti-Doping Logic System (ADLogic) is an important mechanism for UNESCO to evaluate this process. However, it faces many challenges.

On one hand, Subjects 11 and 12 implied that there may be a need for further coordination between UNESCO and WADA on the formulation of ADLogic with the purpose of developing common goals and a shared road to evaluating compliance. On the other hand, UNESCO's evaluation of the results of ADLogic for 2013–2017 indicate that many States Parties did not meet the minimum level of compliance. However, further analysis of the data may indicate that the low scores achieved in the questionnaire may be due to a wide variety of

factors, including poor understanding of the questions and lack of validity of the information provided (UNESCO, 2017).

In 2015 during the fifth session of the Conference of Parties, the 5CP/3 Resolution was adopted, establishing the criteria for which States Parties shall be notified of a noncompliance status. In this sense, noncompliance statuses are classified into two different “scenarios.” In the first scenario, the national report is not submitted to the Conference of Parties. In the second scenario, the national report unveils that the State Party is implementing the Convention below the 60% benchmark (UNESCO, n.d.-a).

Although complying with UNESCO’s ADLogic questionnaire is not a WADA compliance requirement, it may be seen as an indicator of the level of importance that a State Party or signatory gives to anti-doping within the framework of their political and sports agenda.

Conceptual Framework

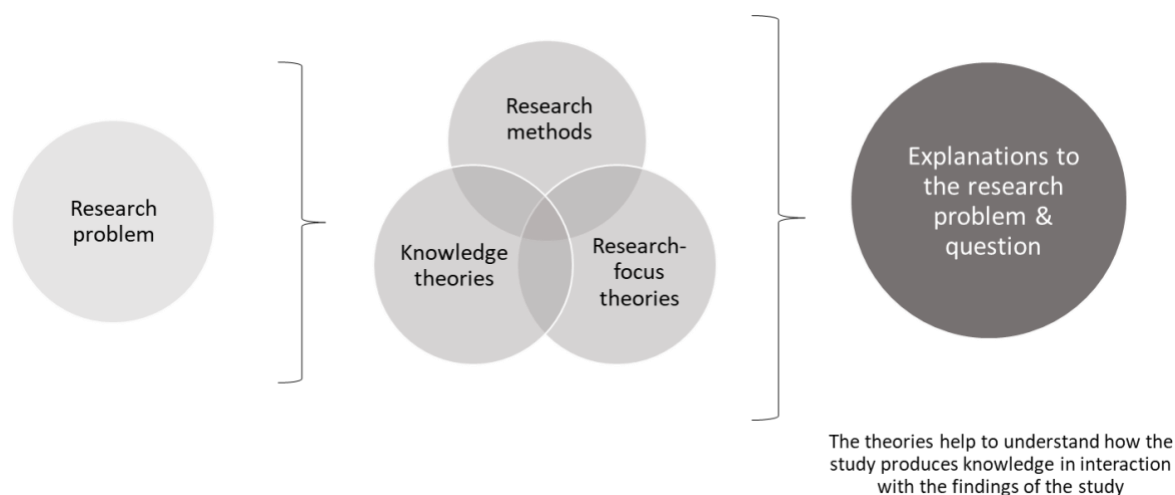
The conceptual framework presented in the second part of this chapter examines the theories chosen to frame the research question and discuss the findings of the study. This dissertation is grounded in a constructivist paradigm, where meaning is built from the dialogue between the theories reviewed and the findings extracted from the data analyzed throughout the research process.

First, this conceptual framework presents the general knowledge theories that were used for this study: the Enlightenment, constructivism, political theory, political economy theory, and international relations theory (see Figure 5). These theories help to understand how the study produces knowledge within the framework of a specific methodological structure. In addition, these theories were selected taking into account the nature of the research problem and their potential to dialogue with the results of the study. Next, it presents the research-focus theories—

compliance theory, contingency theory, organization theory, and cultural dimensions theory—which were chosen to answer, along with the knowledge theories, the study’s research question and provide explanations to the research problem.

Figure 5

Role of the Theories in the Conceptual Framework



Knowledge Theories

The Enlightenment. After the Renaissance, the 18th century gave birth to the Enlightenment, also known as the Age of Reason, with Emmanuel Kant as one of its most prominent figures (Rusty, 2016). This era revolutionized philosophy and society, proposing new ways of looking at rationality, social justice, and inner growth (Bristow, 2017). The Enlightenment brought with it innovative concepts that in many cases, although not in all, drifted apart from traditional Cartesian epistemology, which had been widely accepted in Europe since Descartes and had stimulated the development of the Scientific Revolution (Cohen, 1985).

In Descartes’ view, the scientist must strive to analyze and understand the world by focusing on what the mind clearly perceives to be true (Hatfield, 2018). Descartes believed that

human minds came loaded with intellectual ideas whose content was independent from experience but that had an absolute nature (Newman, 2019). He also believed that any investigation that strives to know the truth about reality should never do it without rational thinking and a rigorous method (The Scientific Method/Rene Descartes' Method, 2013). In this context, Descartes laid out the ground for the establishment of rationalism and positivism, considered pillars of the scientific method (Cohen, 1985).

Paradoxically, although complimentary in many respects, Kant (and other precursors of the Enlightenment) suggested that reality can only be seen and understood through the eyes of people and people's senses and subjectivities (Watkins & Stan, 2014). That is, reality only exists because humans assign meaning to it. Kant further argued that even if there were a reality that existed independently from human filtering, people would not know it, as people can only know what they see, decode, interpret, and recode based on their view of the world (Rohlf, 2018). To Kant, reality was heavily influenced by the human experience and, thus, strongly urged people to have the courage to use their own understanding to see it and live it (Goldmann, 2009; Rohlf, 2018).

Moreover, Foucault (n.d.) said, based on Kant's ideas, that the most important characteristic of the Enlightenment is that it allowed people to become free from their own self-imposed state of immaturity. To Kant, that is a self-imposed submission of one's will toward others, particularly those who represent authority. In Kant's view, by blindly accepting someone's authority, or absolute truth as proposed by Descartes and his *God* figure, humans remain within a state of perpetual immaturity (Williams, 2018). Kant exhorts humanity to become aware and, thus, free by means of reason, as in Plato's *Allegory of the Cave*. Foucault

(n.d.) went on to say that the “Enlightenment is defined by a modification of the pre-existing relation linking will, authority, and the use of reason” (para. 13).

Goldmann (2009) pointed out two critical principles of the Enlightenment: “(a) the great importance attached to making knowledge as comprehensive as possible; and (b) the idea that this knowledge is a sum of items of information” (p. I). In this sense, thinkers of the Enlightenment, such as Kant, Voltaire, and Rousseau, defined knowledge as movement and transformation. Therefore, the Enlightenment saw the development of human societies, including the knowledge produced in them and the impact of this on history and nature, as intrinsically determined and dependant on individual freedom and action (Halsall, 1997). In this context, objectivity as something independent from the human mind ceases to exist, giving birth to perception, which is now seen as objectivity through the human eye (Segal, 2011).

However, before the perception-based paradigms became popular (i.e., after the Enlightenment revolution), positivism, as a philosophical theory of knowledge, became the preferred research construct within the renewed scientific community. Its premises are based on the idea that human experience, interpreted through logic and reason, are the only real source of knowledge (Bourdeau, 2014; Larrain, 1979).

Following these precepts, the late 19th and early 20th century—in a midst of continuous development of new philosophical and theoretical paradigms—witnessed the emergence of constructivism: a new approach to understanding reality, knowledge, and research (Bagnoli, 2017). Constructivism proposes that knowledge is built based on contingency, human perception, and social experience, rather than assuming that authentic knowledge only derives from scientific verification as it is asserted by positivism (Gellman, 2019). This widens the spectrum of action of the scientific method and, in particular, of the social sciences.

This research studied the factors that affect Peru's and Bolivia's anti-doping compliance with the Code. This was done from a constructivist perspective in the sense that an understanding of the problem was built based on the perceptions of those directly involved with anti-doping compliance in both countries, hence the relevance of the constructivist paradigm to this dissertation.

Constructivism. Constructivism is a theory of knowledge (epistemology) that claims people produce knowledge and meaning from the dialogue between their ideas and life learnings (Hein, 1991). Mogashoa (2014) said constructivism is “a learning or meaning-making theory that offers an explanation of the nature of knowledge and how human beings learn” (p. 52). Therefore, constructivism was particularly relevant to this study as the attempt was made to build an understanding of the factors that affect compliance of the NADOs in Peru and Bolivia from the perceptions of the participants.

Constructivism mostly emerged in France in the late 19th and early 20th century. The term was first coined by Gaston Bachelard (1884–1962) with the phrase, “Nothing proceeds from itself. Nothing is given. All is constructed” (as cited in Mastin, n.d.). However, constructivism did not start with Bachelard; it has been intermittently present and discussed throughout history (Segal, 2011).

Constructivism focuses on social reality and what is built as a product of it (McKinley, 2015). It suggests humans are capable of producing a shared and reasonable structural understanding of existence through systematic observation and active interpretation (Gray, 2018). This construction of knowledge shaped by internal and external ideas has an impact on the social construct (Gray, 2018).

From an organizational perspective, given that this study deals with NADOs, Gray (2018) and Ruggie (1998) suggest that constructivism views organizations as instruments that contribute towards the creation of common practices and shared identities. However, in the context of the anti-doping system, collective identities (under the umbrella of the Code) cannot be built if there is a disconnect between international regulation and the local context. Therefore, policymakers of international regulation must take into consideration the importance of learning and building an understanding of culture and context to develop successful policies (Kim, 2010).

Ontologically speaking, the Code, the International Standards, and WADA's compliance approach are fixed and have worldwide application. However, signatories and relevant stakeholders construct meaning and go about achieving compliance in different ways based on their individual circumstances. Some of the factors that influence these differences are culture, history, politics, economics, ethical frameworks, and religion, among others.

The role of constructivism is particularly important in the context of international relations (theory) where there is a need to develop systems and structures that are meaningful and accepted across borders.

Political Theory: Positive Versus Normative Approach. According to Yesnowitz and Gerring (2006), there are two main intellectual paradigms in political science: (1) an empirical or positivist approach and (2) a normative approach. The politics behind anti-doping can be analyzed from one of these two models. The empirical method focuses on *what is*, where all examination of reality is exclusively fact-based, while the normative paradigm takes on a moral approach, where behavior (*should be*) must fit within society's established framework (Johnson et al., 2020).

Yesnowitz and Gerring (2006) said, “The ‘positive’ paradigm treats the scientific study of politics as associated with a value neutral approach to the subject” (p. 101). In contrast, the normative approach is concerned with what is desirable or what should be as part of the social construct. In this sense, Jann et al. (2017) believed that NADOs are in an opportune situation within the national political juncture because anti-doping is perceived by society as something positive. Therefore, one way or another, political authorities are obliged to support anti-doping. This situation gives NADOs a certain degree of political advantage, as politicians do not want to be in the middle of public, media-driven scandals. In line with this, anti-doping gives politicians an opportunity to support a socially accepted cause and consequently boost their image.

While the empirical approach is preoccupied with making conclusions from a descriptive perspective (reality as it is), the normative approach attempts to determine how the world ought to be by aligning societal values to the way individuals and groups (e.g., governments and organizations) act under those values (Johnson et al., 2020; Yesnowitz & Gerring, 2006). In the context of a predominant positivist approach to understanding politics, theorists such as Taylor (1994) believe that political science cannot exist without normative theory. Taylor argued that all fact-based approaches, where human interpretation is present, have a values component built-in. This is important in the realm of anti-doping because the concept of anti-doping may be interpreted under a *what should be* premise. Salloch et al. (2015) suggested that “direct inferences from descriptive data to normative conclusions are problematic, [and] an ethical framework is needed to determine the relevance of the empirical data for normative argument” (p. 1).

This hybrid normative and empirical approach was important for this research because a neutral facts-based approach alone may not have been sufficient to understand all the intricacies

behind anti-doping. Particularly at the NADO level, anti-doping programs operate under international standards but are heavily affected by politics, economic systems, and cultural practices of the countries where they operate.

Political Economy Theory. During the 20th century, two major political and economic philosophies have dominated the world: liberalism (and later neoliberalism) and Marxism. Liberalism, according to Girvetz (2020) is a “political doctrine that takes protecting and enhancing the freedom of the individual to be the central problem of politics .” In this view, Cranston (1967) said that a liberal believes in liberty. Locke (1960) added that liberals believe that people are intrinsically in a state of freedom to conduct their actions.

With regard to neoliberalism, Smith (2019) defined it as the following:

[Neoliberalism is] often characterized in terms of its belief in sustained economic growth as the means to achieve human progress, its confidence in free markets as the most-efficient allocation of resources, its emphasis on minimal state intervention in economic and social affairs, and its commitment to the freedom of trade and capital.

Mirowski (2015) defined the notion of neoliberalism as a system that involves free enterprise, competition, and a strong but impartial state, contradicting laissez-faire views of classical liberalism that supported, above all, individuals’ freedom of thought and action. Today, neoliberalism refers to a market-driven regulation that aims at, as Boas and Gans-Morse (2009) declared, abolishing price regulations, relaxing capital markets, limiting trade blocs, and, as much as possible, minimizing government impact in the economy.

Marxism, on the other hand, is defined as the following:

the political, economic, and social principles and policies advocated by Marx; *especially*: a theory and practice of socialism [. . .] including the labor theory of value, dialectical materialism, the class struggle, and dictatorship of the proletariat until the establishment of a classless society. (Merriam-Webster, n.d.)

Wolff (2017) stated that Marx's historical materialism proposes that historical developments revolve around production and the class struggles that arise from it, which, in Marx's view, ultimately climax in communism. Marx believed, and explained in his labour theory of value, that the surplus produced through the capitalist machinery is based on the exploitation of the proletariat. This, he suggested, proposes an unsustainable approach to progress that will inescapably culminate in collapse (Chambre & McLellan, 2019).

These philosophical paradigms differ in terms of how governments are structured politically and economically, setting the limits on individual liberties, democracy, and the overall role of state in society (Bowles & Gintis, 1990). Extrapolating these principles to the realm of the world anti-doping system and considering that NADOs operate under the local rule of law, the governance, structure, and operational independence of NADOs are dependent on their political and economic systems. Although the Code is the anti-doping framework for all its signatories, the political and economic heterogeneity of their nation states is vast and will unavoidably condition the way NADOs operate.

International Relations Theory. The study of international relations is a prolific, multidisciplinary and multidimensional field (McClelland & Pfaltzgraff, 2019). The majority of approaches used to analyze the subject emerge from other such classical disciplines as economics, politics, and sociology (McGlinchey et al., 2017). The field of international relations was initially developed during the early 20th century in a world where finding innovative ways to enhance relations amongst peoples, societies, and nations in light of globalization, economic growth, and war was paramount (McClelland & Pfaltzgraff, 2019).

During this first phase, the study of international relations theory focused on the balance of power, military development, and foreign policy (Burchill et al., 2005, Introduction). The

most prominent theories for international relations are realism, liberalism, Marxism, and constructivism (Snyder, 2004). This literature review will explore some of these theories in the following sections.

Although there are marked differences across the theories and their levels of acceptance among academics, international relations theories are primarily categorized by the emphasis they place on specific aspects associated with the way nations and subnations coexist and benefit from interacting with each other within the global arena (McClelland & Pfaltzgraff, 2019).

The world anti-doping system is validated across borders by the UNESCO International Convention Against Doping in Sport, approved and signed by States Parties in 2004. Since then, the Convention has become the second most ratified in the history of UNESCO (UNESCO, n.d.-b). Therefore, the anti-doping system exists as a collective multinational endeavor because States Parties agreed to recognize it both internally (i.e., within their national jurisdictions with legislation and regulations) and externally as a standardized approach to promote clean sport (UNESCO International Convention Against Doping in Sport, 2005). Further, the Code is a document developed by WADA through a comprehensive stakeholder consultation process that aims to harmonize anti-doping rules across nations and sports (WADA, n.d.-b; Zorea, 2014).

The IOC and the governments of the world created WADA in 1999. This started a new era in the history of anti-doping. In this sense, the 1989 Council of Europe's Anti-Doping Convention and the establishment of WADA are considered two of the most important international efforts at standardizing anti-doping law, policy, and practice throughout the world (Backhouse et al., 2014). According to Hughes (2015), the creation of WADA and the Code, "provides consistency of anti-doping policies across sports and across international boundaries" (p. 167).

However, to understand the development, implementation, and effectiveness of international anti-doping regulation, it is important to frame the discussion in light of the current state of international politics, economic systems, and power struggles within the realm of sports. Running through this exercise is useful to reach a better understanding of the complex global scenario under which anti-doping law must be implemented.

As mentioned in the beginning of this section, the theories of international relations contain a wide spectrum of legitimate perspectives. These perspectives help us to better understand (and thus make educated assumptions about) the nature of international relations and the degree of success, or the lack thereof, of international policy. Although there are many theories on international relations, this study focuses on the three that have most influenced the world of sports politics and policy in the 20th and 21st century: realism, liberalism, and Marxism (McGlinchey et al., 2017; Snyder, 2004).

Realism. Thomas Hobbes (1588–1679) was an English intellectual, known as one of the forefathers of modern political philosophy (Sheldon, 2003). Hobbes is considered a realist for his way of interpreting the ruthlessness experienced in England during the Civil War (1642–1651). In his work, Sheldon explained, Hobbes depicted human life and interaction as order-less: in a perpetual state of savagery and primitiveness. To solve this unsustainable state, Hobbes suggested a solution in the form of a social contract between those who rule and the citizens (McGlinchey et al., 2017).

Although this concept may be taken for granted in the 21st century, it was revolutionary and necessary in Hobbes's time, when people lived within societies characterized by chaos and continuous internal war. McGlinchey et al. (2017) suggested that today people accept the rules

and sanctions given by their governments in exchange for a strong social net of services, such as security, health, education, and order.

However, according to realists, the problem arises across border states. Although the world of the 21st century is increasingly dictated by international law, law that is developed and implemented by international organizations (e.g., UNESCO, United Nations, WADA, etc.), it is not governed by one supreme government yet (McGlinchey et al., 2017; Waltz, 2010).

In the absence of a centralized authority where anarchy is by default the *modus operandi*, states are independent and sovereign. Here, international structures emerge by force and consent (Waltz, 2010). In this context of anarchic systems, Waltz believed power is key to state dominance and survival. Although international agreements are developed under the premise of mutual benefit, they are still drafted based on individual state interests, which are in most cases imposed considering state power. Under the umbrella of realism, power is expressed in different forms (i.e., politically, militarily, economically, diplomatically, technologically, etc.; Korab-Karpowicz, 2018).

However, there is a division amongst realists. First, offensive realists assert that survival and hegemony are two of the most important goals for states (Mearsheimer, 1994). Second, defensive realists believe that being on the offensive is dangerous and unsustainable; therefore, states should distribute a somewhat equal amount of control and responsibility amongst themselves in order to achieve balance of power (Waltz, 2010).

Whether it is through the eyes of offensive or defensive realism, the formulation, application, and success of international law in the framework of realism is heavily influenced by the interest of the Great Powers: states with the strongest economic, military, and diplomatic powers (Korab-Karpowicz, 2018).

Therefore, from a realist perspective, anti-doping law may be influenced and structured based on the views and interests of those with the greatest power in the world of sports politics.

Liberalism. Liberalism is considered by many scholars as a key element for democracy. A State is defined as liberal and democratic if its people can elect representatives in free and transparent elections and have legislation that protects civil rights (Meiser, 2018).

Although some of these general principles apply in the context of international relations theory, international relations liberalism is associated with how organizations and economic networks successfully respond to the great powers of governments (van de Haar, 2009). Liberalism sees the world of international relations from a different angle than realism, which describes reality as order-less, anarchic, and heavily influenced by the interests of the Great Powers (McGlinchey et al., 2017; Meiser, 2018; Korab-Karpowicz, 2018). According to van de Haar (2009), the classical view of liberalism is born upon the premise that individuals have the right to life, liberty, and property. Based on that moral argument, the role of government and the political system must be centered on guaranteeing these core beliefs are achieved (Meiser, 2018). Influenced by the Enlightenment, liberalism has had a significant impact on the formation of industrial capitalist societies (Burchill et al., 2005, Introduction). Although state regulation is needed to maintain a certain level of balance within societies, Burchill et al. stated that liberals argue that liberalism presents the best formula for market capitalism and welfare development by reducing state control and power and effectively transforming and redistributing capital throughout society.

Some experts, such as Fukuyama (2006)—although Fukuyama’s views have been opposed many times—have said that capitalism and liberalism, both current Western formulas for government and political economy, are the final stage for international relations across

borders (Burchill et al., 2005, Introduction). Fukuyama believed that international relations can be explained with an inside-out approach, where the reduction of conflict and the enhancement of world peace are possible in the same way they have been achieved domestically.

Liberal democracies, according to Linklater (1993), are willing to reduce or even eliminate the use of military power in order to reach a state of international relations equilibrium if such state would allow them to develop and cooperate for the benefit of all. Fukuyama (2006) suggested that, although unprecedented in human history, such a state of balance would drive the rest of the world to follow suit. However, this is contested by neorealists who, Burchill et al. (2005, Introduction) explained, believe that this ideal of world equilibrium is frustrated by the lack of central authority amongst nations.

Although the Code is mandatory for all signatories across the world, independent from their economic or political systems, the Code may be based on Western principles. This reality may pose practical challenges for Code implementation in places of the world where some of the principles of the Code are against the local rules of law. For instance, Code Article 20.5.1 says, on the roles and responsibilities of NADOs, “To be independent in their operational decisions and activities” (WADA, 2019c, p. 111). Although this Code article may be in line with how organizations and institutions are expected to operate within Western liberal democracies, it may face challenges in dictatorial or Marxist societies where all organizations are dependent on a strong centralized authority.

Marxism. The 19th century witnessed the advent of the Industrial Revolution, which rapidly forced nation-states to think beyond their borders if they were to remain competitive within a world that had started to become more interconnected than ever before (Sonda, 2014). In this context of accelerated social and economic expansion, Karl Marx and Friedrich Engels

proposed that people, the proletariat, ought to get organized in order to protect their rights from the exploitation and inequality fostered by the Industrial Revolution and brought forward by capitalism (McGlinchey et al., 2017). Their ideas gave a new view to international relations.

Marxism lays out a scheme to analyze and understand class relation, class struggle, and social conflict (Pal, 2018). Marx believed that social transformation could be better understood and, therefore, molded by using a materialist conception of history. According to Seligman (1901), historical materialism analyzes, through a dialectical approach, the causes of progress and transformation in human civilization.

Marx and Engel believed that historical materialism, as a process, is intrinsically connected to the way humans cooperatively produce the material required to exist and live better in the context of the greater good of society (Pal, 2018). Fromm (1961) and McGlinchey et al. (2017) suggested that the coalition of production capacity, including technology and development, and social relations (i.e., the type of social relations that, in Marx's view, people must engage to survive and reproduce) determine the ideological, political, and economic structures of society.

According to McGlinchey et al. (2017), Marx, at least initially, was not primarily concerned with the way nation-states interacted with each other. However, with the growth and threat of capitalism, he began to focus his ideas on how people could unite to create a transnational front against liberalism. Marxism posits that in this context, based on the Enlightenment values of freedom and community (although this may contradict some of the main principles of the Enlightenment at the same time), the international proletariat should establish a new world order, liberating humans from the abuse, exploitation, and oppression of the international bourgeoisie (Linklater & Suganami, 2006).

However, it is on this point that Marxism probably differs from liberalism the most, particularly when it comes to international relations. Marxism highlights the importance of survival, production, and labor over foreign policy. As Pal (2018) indicated:

A Marxist would stress that IR is not just about states' foreign policy or the behaviour of politicians, but more about survival (or more broadly, life), reproduction, technologies and labour. If this is correct then the separation between the political and economic, or public and private, is problematic because those categories hide the ways in which states and foreign policies are determined by the social relations and structures of the global economy – such as multinational corporations or international financial institutions.

In Pal's (2018) view, interpreting Marx, the problem is centered in the international part of international relations. This is because relations are typically established to serve the interests of multinational corporations that come from powerful patronizing nation-states, creating an illusion of development based on exploitation and inequality that disregards regional differences and needs. The world anti-doping system does not escape this reality.

Research-Focus Theories

Compliance Theory. Compliance refers to the degree of conformity with which populations behave in relation to what a specific regulation establishes (Etienne, 2010). Although regulators suggest compliance is important to preserve structure and order within a given environment, Etienne and Wendeln (2010) said there is little known on the effects of policy on the population, particularly on how policies influence and structure individual actions. According to Parker (2006), Coffee (1981), and Braithwaite (2002), the effects of policy on behavior may be weakened when deterrence is used as the primary method to achieve compliance. The experts say this happens because deterrence usually fails to generate the desired compliance commitment, as it does not truthfully address the morality of the normalized behavior. This is relevant to anti-doping where, historically, deterrence has been used as the primary method to

fight doping in sports (WADA, 2012). Thus, the regulatory literature suggests that policymakers should use a combination of regulatory approaches to increase compliance instead of primarily depending on deterrence (Gunningham et al., 1998; Parker, 2006; Winter & May, 2001).

The main theory used to explain the mixture of regulatory approaches is responsive regulation (Braithwaite, 2002). Braithwaite (2002) proposed that policy and regulatory tactics should be developed within a pyramid model. At the bottom, cooperation strategies are emphasized, and toward the top, deterring castigatory tactics are progressively implemented only when the more collaborative strategies at the bottom have proved unsuccessful. Parker (2006) suggested that “the objective is that firms and individuals will comply, even without enforcement action, through internalization and institutionalization of compliance norms, informal pressure, and the indirect threat of ‘benign big gun’ at the top of the pyramid” (p. 592).

In addition, the literature suggests there are three key motivations surrounding compliance: normative motivation, social motivation, and calculated motivation (Winter & May, 2001). First, normative motivations are related to the moral or ideological structures of individuals, where a person’s sense of right and wrong makes him or her conform with the law independently from the possible sanctions associated with noncompliance (Burby & Paterson, 1993; Gray 2018). Second, social motivation is associated with desire for approval and respect from others in society. Although social motivation may be influenced exogenously (i.e., the media and politics), it is primarily driven by reputation and social validation (Grasmick & Burski, 1990; Gray, 2018; Krommendijk, 2015). Finally, calculated motivation proposes that people comply when the benefits of compliance offset the consequences of noncompliance (Becker, 1968; Gray, 2018). In this context, Gray (2018), citing Guzman’s ideas (2008), suggested that “coercion-based models that use material inducements such as sanctions and fines

to manipulate a state party's utility calculations are an effective method of encouraging compliance" (p. 40).

Alternatively, interdisciplinary studies have given rise to substitute views to the issue of compliance, providing valuable theories and methods. For instance, following the studies of Becker (1968) and Becker and Stigler (1974) on penal regulation and the development of decision theories, the compliance problem was approached from a sociolegal and economic perspective, focusing on social activity and regulation. This utilitarian perspective was developed and implemented with the purpose of generating the greatest gains at the lowest costs (i.e., a production-based approach; Peltzman, 1993; Stigler, 1971).

During the 1960s and 1970s, regulators used two approaches to enhance compliance: punishment in cases of noncompliance and reward to promote further compliance behavior. Nevertheless, the effectiveness of these approaches has been systematically contested by the regulatory literature, suggesting that sanctions or the threat of sanctions alone may not necessarily influence compliant behavior (Paternoster & Simpson, 1996; Sherman, 1993). In this sense, new scientific studies indicate that the most effective way to address compliance is by developing a pyramid model, as Braithwaite (2002) and Parker (2006) earlier suggested. This type of model synthesizes regulatory strategies that emphasize cooperation and dialogue at the bottom with the objective of reaching compliance by means of awareness while utilizing punitive methods only when dialogue fails.

In contrast with decision theory, where compliant behavior is dependent on the evaluation of individual gains and losses, game theory presents a more dynamic construct, where the choices entities make are based on or led by predetermined social structures (Etienne, 2010). That is, organizations and people adapt their behaviors based on what others do, making

compliance difficult to predict and, therefore, less related to the sanctions derived from noncompliance (Tsebelis, 1991).

Today there are many theories that attempt to explain the subject of compliance, particularly from a rational-choice perspective. This perspective combines utilitarian and trust paradigms with the objective of aligning motivations by creating a collaborative and stable environment between the regulator and the regulated (Etienne, 2010). Ayres and Braithwaite (1992) believed that this type of scenario creates the necessary conditions for economic development, where all parties are able to maximize the gains.

Most compliance theories developed between the 1980s and 2000s combine different theoretical models with the purpose of tailoring compliance strategies to serve specific populations better (Gunningham et al., 1998). Etienne and Wendeln (2010) explained that from this contingency framework for compliance strategies, two primary approaches are extracted: “bad apples” versus “good apples.” Etienne and Wendeln argued that in the bad apples scenario, an individual’s sole motivation is related to minimizing the losses and maximizing the gains. This approach is not morally motivated. In contrast, the good apples approach assumes an individual’s decisions are taken based on the respect of the law and an intrinsic sense of fair play.

Although contemporary theories (e.g., the neo-institutional theory, psycho-economic theories, and Scholz’s model of the adaptive contractarian) attempt to provide new insights into the compliance matter, according to Etienne and Wendeln (2010), “no formalization has been able to integrate the wealth of situations and factors studied, much less offer a framework for interpreting compliance” (p. 144).

Contingency Theory and International Relations. Contingency theory suggests that the situation where an organization functions defines the best way to structure it. The premise in

this theory is that the proper alignment of situational variables and organizational strategy will translate in the best performance possible (Betts, 2003). However, it becomes particularly challenging when trying to apply international law at the national level.

Although the main objective of international law is to contribute to the development of functional international relations, collective systems, and multinational identities within the global arena, balancing national priorities while meeting the demands of a universal standardized law is not easy (O'Connell, 2008). The case of anti-doping compliance is an example of this. Given the extremely diverse environments where National Anti-Doping Organizations (NADOs) operate, it would be simplistic to analyze and encapsulate compliance within a unidimensional or standardized perspective. The problem is that there is not one way to structure a NADO. Furthermore, NADOs are established and operate in unique national environments. Therefore, if the goal is to enhance the compliance of signatories, compliance programs must take this into account and develop context-based strategies (Bamberger, 2008). Even though all NADOs must operate under the framework of the Code and the International Standards, the way they implement these standards and their effectiveness may be quite different across the world (Betts, 2003; Galbraith, 1973).

The contingency approach is becoming widely accepted in research on international management, which informs how people from very different places and with different views work together in the pursuit of a wide variety of common goals (Thai, 2014). Because contingency defines strategy formulation and implementation, it is fundamental to take it into consideration at the time of formulating the internationalization strategy of an organization (Govindarjan, 1988). This is especially relevant for organizations such as WADA, which develops policy that has the potential to impact stakeholders worldwide.

In this context, contingency theory is used to analyze and determine course of action on a variety of situational aspects that should be considered prior to implementing international regulation (Bamberger, 2008). Some of these aspects are the internationalization plan, the cultural differences of the parties involved, foreign politics and economics, and local versus international laws, among others (Thai, 2014).

Roth and Morrison (1992) suggested that when facing an international context (e.g., international laws and treaties, different resources available across parties, leadership styles, cultural heterogeneity, and management capacities, among others), international organizations should use different strategic solutions to manage contingency factors and ensure desired goals are achieved. This is particularly relevant in the context of compliance strategy.

Organization Theory: Context to Factors That Affect Compliance. In a study conducted for WADA, Jann et al. (2017) found that “The relationship between organizational structures and the performance of organizations is highly contested, especially for public organizations” (p. vi). This becomes even more complex when the performance of public organizations is dependent on international law (Kirby, 1999). That is the case in anti-doping. Although data on the performance of NADOs are limited and disputed, there is a growing need to develop context-based methodologies and instruments to measure the performance and compliance of NADOs (Hanstad et al., 2010).

The Resource Acquisition Model and the Goal Model. There are several theories surrounding organizational effectiveness. However, Hall (1980) believed there are two fundamental models: the resource acquisition model and the goal model. The resource acquisition model states that organizations should be capable of adapting to their environments and regularly seek to acquire external resources to remain competitive (Courtney, 2002). The

goal model, based on Weber's (1947) work, analyzes organizational effectiveness through the fulfillment of goals and objectives. Even though the resource acquisition model provides an interesting view on how NADOs could boost financial independence, most NADOs (particularly in Central and South America) are public organizations (Jann et al., 2017) subjected to stringent regulation that limit their capacity to generate and receive resources from external supporters. For this reason, it is probably more useful and accurate to analyze the performance of NADOs through the lens of the goal model. However, Robbins and Judge (2009) indicate that the goal model also has its limitations considering that goal achievement demands certain necessary resources, which are scarce in public organizations such as NADOs.

Organization Theory and Organizational Performance. Jann et al. (2017) stated that monitoring the performance of NADOs and their anti-doping programs is very challenging given that the overall research on the performance of NADOs is "nonexistent" (p. 5). Although there has been an increase in publications about WADA's structure and policies (Hanstad et al., 2008; Henne, 2010; Houlihan, 1999; Jann et al., 2017), the literature on the performance of anti-doping programs as a whole is still limited.

According to Jann et al. (2017), the majority of current studies on the performance of NADOs are limited to evaluating the implementation of specific program areas (e.g., whereabouts, education, and testing, among others), NADO independence, and governance. Jann et al. further stated that "there is no comprehensive study providing an analysis of connections between organizational factors of different NADOs and their performance in creating a doping-free environment" (p. 5). Therefore, considering that it is currently virtually impossible to associate NADO effectiveness with the elimination of doping (i.e., from an outcomes perspective), this study focused on the performance of Peru's and Bolivia's NADOs from an

outputs perspective, with the goal of understanding the factors that affect their performance and compliance with the Code.

Governments across the world regularly look for ways to improve public services (Bovaird & Loeffler, 2016). NADOs are largely public organizations. Although a series of public sector reforms across the globe have taken place in the last decades, particularly in the areas of management and operations, there are questions on the outcomes of these reforms (Pollitt & Bouckaert, 2000). For instance, are public organizations more effective than before? Pollitt and Bouckaert (2000) acknowledged that answers to such questions are still unknown. From a NADO perspective, this is also the case. Despite this, Boyne and Gould-Williams (2003) and Boyne et al. (2006) explored the meaning of public service improvement by analyzing theoretical perspectives that discuss causes affecting the quality of public administration. From this work, well-informed inferences can be made on the performance of NADOs.

Boyne clustered these theoretical perspectives into five main groups: resources, regulation, markets, organization, and management (Talbot, 2013). When analyzed together, these five categories provide a theoretical framework for the improvement of public organizations. The framework helps government organizations understand the impact on performance based on several areas and factors (Boyne & Gould-Williams, 2003). By identifying these areas and factors, public organizations such as NADOs are in a better position to develop appropriate strategies. Boyne's (2003) five factors are described in the following paragraphs.

With regard to resources, the notion that more resources translate into better organizational performance is not accurate. Therefore, the correlation between higher spending and better programs is "insignificant" (Boyne, 2003, p. 369). Although in the past experts thought that more resources directly correlated to improved performance, today's studies suggest

that this is not necessarily true. The impact of resources on performance is dependent on the ways it interacts with other such factors as capacity and strategy (Isik et al., 2010).

According to Boyne (2003), management in public organizations functions under strict regulation set by the government. Regulations, both internal and external, aim at keeping organizational activity within the framework of what has been determined for each government program, delineating the specific roles, responsibilities, and goals that public organizations are accountable for (Bartle & Vass, 2007). In addition, in order to ensure accountability, most governments utilize a variety of instruments and methods to control and monitor program effectiveness. These include strategic and operational plans, performance indicators, inspections, audit programs, and so forth (Ashworth et al., 2002).

Regulation can be positive or negative depending on different factors. For instance, if those who understand the domain (e.g., a management-based approach) develop and implement the regulation, then the impact of it can be positive (Bennear, 2004). However, if regulation is developed and applied by external regulators to the service area, it may have a negative or limiting effect, particularly when it comes to innovation (Edler et al., 2016). In addition, although in theory regulation can have a positive impact on accountability, excessive regulation can have a demotivating effect on management, which will in turn negatively impact program performance (Chubb, 1985). Chubb stated, concerning excessive regulation, that “federal policies are heavily administered, extensively rule bound, and seemingly inefficient” (p. 287).

Research indicates that competition in the private sector can be positive for organizational performance, as it sparks innovation, efficiency, and entrepreneurship (Mia & Clarke, 1999). McKean (1965) explained that the pressure to maintain a competitive advantage within the market makes businesses, from an evolutionary perspective, thrive through natural

selection and survival of the fittest. McKean added that because these concepts apply for the private sector, there is enough scientific evidence today to imply that they could also work for the public sector.

However, in the public sector, the central argument does not rest on ownership and profits (as in the private sector) but in competitive behavior. In other words, whether the organization lays within the public or private sector, it should strive to provide good services and products (De Fraja et al., 2009).

Although traditional economic theory suggests that there is a positive correlation between competition and service performance, this is not always the case, particularly when it comes to its effects on equity (Le Grand & Bartlett, 1993). This theoretical perspective suggests that while efficiency is achieved through high levels of competition, it may have a negative impact on those in need within society (e.g., minorities, women, the poor, the elderly, etc.). Paradoxically, these are the people that normally need public services the most.

Competition can have a positive impact on the performance of public entities. Nevertheless, this impact is not uniform and should always be analyzed considering the economic and sociocultural factors involved.

When it comes to organization, organizational adjustment is common in governments, particularly during elections and change of political leaders (Boyne, 2003; Pollitt, 1984). Adjustment and the overall political environment can affect organizational performance, particularly because new authorities come to power with their own political agendas and priorities (Mark & Nwaiwu, 2015).

The restructuring of organizational structures tends to focus on the following: size, internal structures, and external structures. According to Boyne (2003), organizational size pays attention to the benefits of having large and small organizations.

The correlation between size and organizational performance is nonlinear. In other words, an organization being too small or too big does not necessarily alter effectiveness. With this in mind, Boyne (2003) submitted that it is necessary to balance out responsiveness and efficiency, which can be affected if the organization is too small or too big and the appropriate operational systems are not developed to meet the demands.

In light of Boyne's (2003) theory, internal structure relates to the degree of formalization and centralization (i.e., how much an organization depends on rules and authorities to formulate strategy and implement operations). In line with Boyne's ideas, Bozeman (1982) and Dawson (1998) suggested that highly formal and centralized organizations function properly when political environments are stable.

Finally, Boyne (2003) referred to external structure in the context of the extent of collaboration between public organizations and other public or private organizations and the possible effects of these partnerships. Whether these external systems of organizational structures have a positive or negative impact on performance depends on whether these organizations are more effective at meeting their goals when teaming up with external partners than when working by themselves (Hall, 1980).

With regard to management, although there is more data on the private than on the public sector, research indicates that there is a moderate correlation between good management and organizational effectiveness (Hansen & Wernerfelt, 1989). According to Boyne (2003), Hooijberg and Choi (2001), Reuber (1997), Rai (2011), Hurduzeu (2015), and Schonberger

(1992), the main factors surrounding management are the following: leadership and expertise, organizational culture, human resource management, strategy processes, and strategy content.

Early management theory, also described as classical theory, focused on the structuring of organizations and work (Cole, 2004). Cole (2004) stated that these initial theories were typically prescriptive in the sense that they aimed at providing specific formulas for managers to fulfill their leadership roles within the organization.

Later, social scientists started to pay attention to the behaviors of management and their effects on work. Although early studies focused on productivity (e.g., efficiency), they later started to pay closer attention to the human factor (i.e., motivation and satisfaction) as an indicator to evaluate organization performance (Adnan, 2005; Cole, 2004).

In parallel, a different group of social scientists proposed that organizations should be analyzed as social ecosystems, considering the interactions of people as they go about conducting their tasks. This theoretical framework, later called contingency theory, suggested that the specific circumstances within organizations should determine what is most appropriate for them (Betts, 2003; Cole 2004).

Current management theories use strategic approaches. Strategic perspectives take a complete view of organizations and stakeholders with the purpose of making them fit-for-purpose. The central idea of the theory is meeting stakeholder demands by being competitive and developing the best course of action, considering the specific contingencies of the environment and the strengths of the organization (Mintzberg et al., 2003; Porter, 2004)

In addition to Boyne's (2003) five factors affecting the performance of public organizations, there are different ways to measure performance improvement. Boyne identified the following dimensions of public service effectiveness:

- quantity of outputs (e.g., number of operations performed in hospitals, hours of teaching delivered in schools, number of houses built);
- quality of outputs (e.g., speed and reliability of service, courtesy of staff);
- efficiency (ratio of outputs to financial inputs);
- equity (fairness of the distribution of service costs and benefits between different groups);
- outcomes (e.g., percentage of pupils passing exams, percent of hospital patients treated successfully);
- value for money (cost per unit of outcome); and
- consumer satisfaction (which may be a proxy for some or all of the above, depending on the questions posed to service users). (p. 368)

Boyne (2003) suggested that any upward change in any of these dimensions can be taken as a signal of improvement. It all depends on what the organization or government is trying to measure and the extent of the effectiveness audit.

It is important to note that although program evaluation is a common practice throughout the world, organizations (particularly public organizations) measure effectiveness differently. Glynn et al. (1992) suggested that the scope of an audit evaluating organizational or program effectiveness depends on the extent the audit conclusions are subject to test. The term *subject to test* refers to the degree by which the auditor, or those hiring the auditor (e.g., the government), is willing or able to reveal the real effectiveness of the program audited, considering the results may be the subject of political or public criticism.

Schwartz (1999) analyzed , based on Glynn et al.'s (1992) typology, the types of evaluation methods most used by governments to measure program effectiveness. The three recurrent types of effectiveness found by Schwartz in his study are outcome, managerial (output), and evaluative.

Schwartz (1999) defined outcome (i.e., impact) effectiveness as the extent by which an organization produces results that are in line with its objectives and policies: for example,

meeting a NADO's strategic objectives by the end of the established cycle. These objectives relate to the organization's vision and should transcend outputs.

Glynn et al. (1992) defined managerial effectiveness, the most popular reporting methodology among public organizations, as "the extent to which the management of a project, programme or policy is effective in producing functional outputs" (p. 60). Managerial effectiveness measures how efficiently an organization transforms inputs (i.e., resources such as funds, labor, and skills) into outputs. According to Schwartz (1999), "output measurement is generally a much simpler task than outcome measurement and is also less politically risky" (p. 516). Nevertheless, by focusing on output measurement, evaluation does not give answers to some of the most important aspects about the program. For example, are NADOs eliminating doping? If a program cannot answer these types of questions, is it useful?

Finally, evaluative effectiveness, also called self-evaluation, is the type of effectiveness evaluation that programs put in place to measure their own effectiveness. Schwartz (1999) suggested that evaluative effectiveness "tend[s] to neglect outcome effectiveness questions and often conduct[s] sloppy work" (p. 517). Schwartz also said although evaluative effectiveness is simpler, less politically controversial, and substantially less expensive, it has not been shown to improve the performance of public organizations.

There is no comprehensive research on the effectiveness of NADOs' anti-doping programs and their correlation to the elimination of doping (Jann et al., 2017). However, it is necessary to create a baseline on the effectiveness of NADOs by measuring outputs—that is, how NADOs are transforming the available resources into meaningful, Code-compliant, outputs or activities.

Future comparative analysis of this type of data (i.e., output-focused research) and doping prevalence studies may provide initial reliable information to determine whether NADOs are on the right path to do the job they were created for: prevent doping in sports.

Hofstede's Cultural Dimensions Theory. Modern anthropological theorists do not limit the concept of culture to one true, wholly, and everlasting meaning. Instead, as any other symbol, theorists define culture as context-driven and ever-changing. The definition of culture is time bound; it must be agreed on and serves a specific purpose (Geertz, 1973). Livermore (2011) explained that cultures diverge considerably in the way they perceive and act upon a variety of aspects of life. Livermore added that cultures are dynamic units and overlap with each other. Keessing (1974) stated that the different terminological and philosophical matters that separate major culture theorists and their theories have implications on the way traditional anthropological questions are addressed: "How have cultures developed and what forces shape them? How are cultures learned? How do shared symbolic systems transcend individual thought worlds? How different and unique are cultures? Do universal patterns underlie diversity? How is cultural description possible?" (p. 74). This is important because, depending on the theoretical lenses used to analyze a specific phenomenon or reality, answers to these questions will be different.

Does culture play a role in the compliance of anti-doping programs? Gellner (1997) defined culture as "the socially transmitted and sometimes transformed bank of acquired traits" (p. 3). Whether these traits are in part transmitted by nature or nurture, or a combination of the two, the fact remains that they become the makeup of a particular culture. Thus, the answer to the question above is probably yes. NADOs have a culture of their own. However, they are heavily influenced by the larger cultures surrounding them (i.e., sports ministry, country, global

anti-doping system, etc.). This means that NADOs are affected by the culture of the international anti-doping system as much as they are by the local cultures with whom they interact on a daily basis. This shapes the way NADOs conduct their business, perform, and comply with the Code.

According to Hofstede's (2001) cultural dimensions theory, a framework for cross-cultural communication, society shapes the values and behaviors of people. Although Hofstede's original theory had four dimensions (individualism/collectivism, masculinity/femininity, uncertainty avoidance, and power distance), he has added two more since then: long-term orientation and indulgence versus self-restraint. These six dimensions determine the way individuals and groups behave, interact, and work (Livermore, 2011).

Hofstede's dimensions were important to this research because NADOs function under the umbrella of the cultures that shape them. Therefore, it was necessary to see how these different cultural contexts may affect Code compliance and compliance strategy.

Three of Hofstede's (2011) six dimensions were key to this study: power distance, uncertainty avoidance, and individualism versus collectivism. Power distance refers to the extent that people in organizations and society agree and assume that power is distributed unequally (see Table 2). Uncertainty avoidance describes a nation's tolerance for ambiguity. It indicates the extent people feel comfortable or uncomfortable when dealing with unstructured or unpredicted circumstances (see Table 3). Individualism versus collectivism refers to the degree that people integrate to groups in society (see Table 4).

Table 2*Hofstede's (2011) Differences Between Small and Large Power Distance Nations*

Small power distance	Large power distance
Use of power should be legitimate and is subject to criteria of good and evil	Power is a basic fact of society antedating good or evil: its legitimacy is irrelevant
Parents treat children as equals	Parents teach children obedience
Older people are neither respected nor feared	Older people are both respected and feared
Student-centered education	Teacher-centered education
Hierarchy means inequality of roles, established for convenience	Hierarchy means existential inequality
Subordinates expect to be consulted	Subordinates expect to be told what to do
Pluralist governments based on majority vote and changed peacefully	Autocratic governments based on co-optation and changed by revolution
Corruption rare; scandals end political careers	Corruption frequent; scandals are covered up
Income distribution in society rather even	Income distribution in society very uneven
Religions stressing equality of believers	Religions with a hierarchy of priests

Note. From "Dimensionalizing Cultures: The Hofstede Model in Context," by G. Hofstede, 2011, *Online Readings in Psychology and Culture*, 2(1), p. 9 (<https://doi.org/10.9707/2307-0919.1014>). Copyright 2011 by the International Association for Cross-Cultural Psychology.

Table 3*Hofstede's (2011) Differences Between Weak and Strong Uncertainty Avoidance Nations*

Weak uncertainty avoidance	Strong uncertainty avoidance
The uncertainty inherent in life accepted and each day is taken as it comes	The uncertainty inherent in life is felt as a continuous threat that must be fought
Ease, lower stress, self-control, low anxiety	Higher stress, emotionality, anxiety, neuroticism
Higher scores on subjective health and well-being	Lower scores on subjective health and well-being
Tolerance of deviant persons and ideas: what is different is curious	Intolerance of deviant persons and ideas: what is different is dangerous
Comfortable with ambiguity and chaos	Need for clarity and structure
Teachers may say 'I don't know'	Teachers supposed to have all the answers
Changing jobs no problem	Staying in jobs even if disliked
Dislike of rules – written or unwritten	Emotional need for rules – even if not obeyed
In politics, citizens feel and are seen as competent towards authorities	In politics, citizens feel and are seen as incompetent towards authorities
In religion, philosophy and science: relativism and empiricism	In religion, philosophy and science: belief in ultimate truths and grand theories

Note. From “Dimensionalizing Cultures: The Hofstede Model in Context,” by G. Hofstede, 2011, *Online Readings in Psychology and Culture*, 2(1), p. 10 (<https://doi.org/10.9707/2307-0919.1014>). Copyright 2011 by the International Association for Cross-Cultural Psychology.

Table 4*Hofstede's (2011) Differences Between Individualist and Collectivist Nations*

Individualism	Collectivism
Everyone is supposed to take care of him- or herself and his or her immediate family only	People are born into extended families or clans which protect them in exchange for loyalty
“I” — consciousness	“We” — consciousness
Right of privacy	Stress on belonging
Speaking one's mind is healthy	Harmony should always be maintained
Others classified as individuals	Others classified as in-group or out-group
Personal opinion expected: one person one vote	Opinions and votes predetermined by in-group
Transgression of norms leads to guilt feelings	Transgression of norms leads to shame feelings
Languages in which the word “I” is indispensable	Languages in which the word “I” is avoided
Purpose of education is learning how to learn	Purpose of education is learning how to do
Task prevails over relationship	Relationship prevails over task

Note. From “Dimensionalizing Cultures: The Hofstede Model in Context,” by G. Hofstede, 2011, *Online Readings in Psychology and Culture*, 2(1), p. 11 (<https://doi.org/10.9707/2307-0919.1014>). Copyright 2011 by the International Association for Cross-Cultural Psychology.

Conceptual Framework Summary

The Conceptual Framework section presented the knowledge theories and research-focus theories used to frame this study (see Table 5). Taking into account the nature of the research problem, the knowledge theories analyzed in this conceptual framework helped to understand how the study intended to produce knowledge within the framework of a specific methodological structure. The research-focus theories helped to answer the study's empirical question—in

interaction with the knowledge theories—and provide arguments and explanations to the research problem. This analysis and discussion will be presented in Chapter 5.

Table 5

Conceptual Framework Theories

Knowledge theories	Research-Focus theories
The Enlightenment	Compliance theory
Constructivism	Contingency theory
Political theory	Organization theory
Political economy theory	Cultural dimensions theory
International relations theory	

Chapter 3: Methodology

The purpose of this chapter is to introduce the research methodology for this qualitative basic interpretive study concerning the factors that affect Code compliance of the NADOs in Peru and Bolivia. This research design provided a deeper understanding of the NADOs' compliance status while also identifying the factors that affect their ability to achieve basic compliance with the Code. Further, this approach offers an alternative view on how to implement responsive regulation tactics based on the data and the results of the study. This was done to better understand the overall compliance construct and contribute to the improvement of current compliance strategies.

The application of a constructivist basic interpretive methodology for this dissertation is discussed thoroughly in this chapter. The overall research scheme, including the research question, research design, research process, research methods for data collection, and analytical process are also part of this chapter.

Research Question

This dissertation sought to understand the reasons for limited Code compliance of the NADOs in Peru and Bolivia by answering the following question: What are the factors that affect Code compliance of the NADOs in Peru and Bolivia?

Research Design

A qualitative investigation is suitable when answers to the research questions are best achieved through the perceptions of people (Creswell, 2008). Given the limited research on performance and compliance of NADOs and the exploratory nature of this study, this dissertation aimed at providing understanding, building concepts, and constructing meaning on the issue of compliance from the views of the subjects. It did not intend to establish relationships between

variables or test causality (Creswell, 2003, 2008; Leedy & Ormrod, 2005; Merriam, 2002; Shields & Rangarajan, 2013).

In addition, this research was outcomes-focused (Morrow, 2007). Therefore, it did not rigidly adhere to any particular research methodology. Nevertheless, a basic interpretive qualitative approach was used in order to answer the research question (Domegan & Fleming, 2007).

Merriam (2009) stated that qualitative research attempts to see reality through the eyes of people. Creswell and Plano Clark (2007) and Shank (2002) added that qualitative research seeks to interpret the world by exploring and discovering meaning through the experiences of the participants. Therefore, qualitative research is constructivist in nature.

A basic interpretive qualitative method for this dissertation was chosen because it does not ascribe to any specific qualitative design. Instead, it allows the researcher to use various qualitative means to address the research questions in light of the nature and needs of the study (Sandelowski & Barroso, 2010). This dissertation concentrated on understanding the factors that affect Code compliance of the NADOs in Peru and Bolivia through the perceptions of those working in anti-doping in both countries. However, because there was no previous data on the subject, it was necessary to use a basic interpretative approach to build an initial understanding of the circumstances.

This study did not focus on the specific anthropological and sociological nuances of being a member of one of the NADOs examined, as would be required in an ethnographic design (Merriam, 2002). Neither did the study attempt to unveil the essence of noncompliance as a unique phenomenon to Latin America, as a phenomenological study would have done (Denzin & Lincoln, 1994). Finally, this study did not aim to develop a new anti-doping compliance theory,

as would have been the emphasis of grounded theory research (Glasser & Strauss, 2017). However, it did provide a different view from some of the compliance theories (see Chapter 5).

Choosing a basic interpretative approach rather than a more specific design (e.g., narrative inquiry, ethnography, phenomenology, grounded theory, etc.) allowed the focus of this study to be on the experiences and reflections of the participants themselves rather than, for example, the participants' internal structures associated with the compliance experience itself, as would have been the case in a phenomenological study. Neither did this study focus on a specific story narrated by a participant as they experienced a noncompliance procedure, as would have been the case in a narrative inquiry (Percy et al., 2015).

The Researcher

As the researcher, I have worked in different sports organizations for the past 15 years, including the last 5 in anti-doping. I have been at WADA for 4 years, where I now hold a senior manager position. My educational background includes a Bachelor of Science in Psychology and a Master of Science in Kinesiology.

At WADA, I head the Regional Anti-Doping Organization (RADO) Program, which comprises 15 RADOs and 131 countries (i.e., as of March 2020). In addition to my role leading the RADO program, I directly manage four RADOs. This includes the South America RADO (SAM RADO), an organization of whom the NADOs of Peru and Bolivia are members. Being this close to the sample had pros and cons throughout the research process.

On the positive side, I knew the realities on the ground for both NADOs. This was helpful in knowing what information to look for (e.g., types of documents to review), where to find it (i.e., places, such as platforms, databases, folders, files, etc., and people), and most importantly who to interview to ensure I gathered meaningful data (although participant selection

was done with the advice of WADA's Regional Director for Latin America). With regard to the challenges faced, I had preconceptions and assumptions (e.g., there is little political interest in anti-doping in the countries; resources are not sufficient in the region; knowledge in anti-doping is limited, etc.) in relation to some of the possible reasons affecting the compliance of the NADOs. However, in an attempt to be transparent, I developed a thorough coding strategy, used triangulation to enhance validity, included external expert review to strengthen objectivity, and stated my biases. Furthermore, it is important to highlight that I had no direct relationship (e.g., personal relationships, contracts, direct reporting, etc.) with the participants in the study that could be seen or interpreted as a conflict of interest.

Research Process

Taking into consideration the basic interpretative design used to answer the research question, a five-stage research process was developed and implemented for this study. Each stage built knowledge and understanding from the previous one (Chapter 1, Figure 1).

Figure 1 shows the five-stage research process. This process was divided among the six chapters of this dissertation. Stage 1 includes Chapters 1, 2, and 3 (Factors that Affect World Anti-Doping Code Compliance; Literature Review, including a definition of compliance; and Methodology); Stages 2 and 3 include Chapter 4 (Findings); Stage 4 includes Chapter 5 (Discussion); and Stage 5 includes Chapter 6 (Conclusions).

Stage 1: Framing of the Study

Stage 1 of the research process set the study's course of action. Based on the research problem, the study goals, conceptual framework, and research design were established while also including the methods for data collection and analysis. An extensive review of the literature and theories associated with the research question was conducted, which confirmed the exploratory

nature of the study and the appropriateness of the basic interpretative design used to address the research problem. In addition, it provided the necessary flexibility to select data collection techniques and the analytical methods needed to conduct this research.

As part of Stage 1 of the research process, it was necessary to provide a definition of compliance in anti-doping in order to (1) have a better understanding of the compliance strategy in place and (2) develop a framework to assess the compliance status of the NADOs in Peru and Bolivia.

To begin this process, two WADA compliance experts were interviewed. First, it was important to understand WADA's compliance strategy from WADA's perspective before going into the field to learn of the participants' views. Content analysis was then used to analyze the data collected. Second, the information gathered from discussions with these experts helped guide the review of the literature on both WADA's compliance documents and the overall compliance literature.

Stage 2: Compliance Assessment of the NADOs in Peru and Bolivia

A compliance assessment of the NADOs in Peru and Bolivia was conducted in Stage 2. This evaluation was conducted to measure the compliance status of the NADOs and identify potential factors that impact NADO compliance (e.g., resources and organizational strategy). This provided a comprehensive understanding of compliance for both anti-doping organizations.

The compliance assessment was done through an extensive document review process. To do this, information from a wide variety of sources was gathered and examined. These included but were not limited to official anti-doping documents from the following: WADA, ADAMS data, Livelink data, Netsuite data, and several files from WADA's Program Development

Department, NADO/RADO Relations Department, and WADA's Latin America Regional Office.

Subsequently, all relevant information was entered into a scoreboard in Excel. The scoreboard was structured under the definition of compliance developed in Stage 2 of the research process. The scoreboard was a very useful tool for data analysis and interpretation. For further information on the study's scoreboard see Chapter 4.

The compliance assessment was a central component of the study. It led to (1) having a clearer view of the compliance status of the NADOs (i.e., including getting a detailed account of their specific nonconformities) and (2) identifying some of the possible aspects causing the nonconformities. This information was paramount to guiding the interview process during Stage 3 of the research. The results of the compliance assessment are presented in Chapter 4.

Stage 3: Data Analysis

Stage 3 of the research process helped to identify the factors that affect NADO compliance. To do this, 10 semistructured, open-ended interviews with anti-doping experts from both countries were conducted. To maintain the data in a way that was as equilibrated as possible, five participants from each country were interviewed. Subject selection was conducted in consultation with WADA's Latin America Regional Office. This ensured participant appropriateness. Data analysis (i.e., thematic analysis and coding) for this section was conducted with the help of Excel and Dedoose, a cross-platform application for analyzing qualitative data. From this stage of the research process, key factors affecting Code compliance of the NADOs in Peru and Bolivia were identified (see Chapter 4).

Stage 4: Discussion

Stage 4 of the research process involved proposing a comprehensive interpretation of the findings and their practical implications. To do this, the theories framing this research were used. Stage 4 also included writing a discussion on the limitations of the study and recommendations on future research potentials to further expand understanding on the research question.

The Discussion includes a detailed description of the conceptual model of findings. The model attempts to provide a deeper understanding of (a) what is going on, (b) what implications it has in reality (i.e., from NADO development to compliance), (c) what the theories say about it, and (d) what could be done in practical terms to improve the situation. Therefore, this research not only aims at providing light to the research problem but also provides practical solutions.

Stage 5: Conclusions

Stage 5 involved writing an explanation of the research process undertaken. Conclusions (Chapter 6) describes the results of the study and how these results relate to practice (i.e., what compliance regulators can do to enhance compliance strategies) and theory (i.e., what future researchers can learn when reading this study). Finally, this last chapter also provides future research recommendations. For example, what are the open and unanswered questions that arise from this study and what is worthy for further investigation.

Trustworthiness

Validity in qualitative research focuses on rigor of interpretation through context and individual differences, whereas in the positivist perspective of quantitative research the emphasis is on rigor of method through validity (internal and external) and reliability. This ensures and protects claims of gained knowledge about a population (Guba & Lincoln, 2005; Yardley, 2017).

In order to enhance trustworthiness, Lincoln and Guba (1985) developed a four-component model for researchers to follow. These components are credibility, dependability, transferability, and confirmability. Creswell (1998) recommended that researchers use at least two of these to ensure trustworthiness. Therefore, in order to maintain rigor, transparency, and objectivity in this study, credibility and transferability were used to establish trustworthiness.

According to Yardley's (2017) theory, there are five methods for augmenting validity in qualitative research: triangulation, participant feedback, comparing the researchers' coding, disconfirming case analysis, and establishing a paper trail. Similar to Yardley's theory, Creswell and Plano Clark (2007) proposed eight processes to enhance validity: thorough observation in the field, triangulation, external expert review to ensure objectivity, negative case analysis, stating and acknowledging the researcher's biases, member checking, thick rich description, and external audits.

Credibility

Merriam (1998) stated that credibility in qualitative studies refers to internal validity. Thus, credibility refers to whether the researcher is adequately describing the problem (i.e., what is happening in the world) and addressing the research question(s). From the methods proposed by Yardley (2017) and Creswell and Plano Clark (2007), triangulation, external expert review to ensure objectivity, and stating the researcher's biases to enhance credibility were used. In addition, saturation was used to ensure the data collected were sufficient to enhance credibility (Charmaz, 2006).

Triangulation helped ensure that there were sufficient sources of data to compare various points of view. This included interviewing different anti-doping experts, who were political and operational roles in the field, and reviewing documents that discussed the same topic but were

written by different organizations (e.g., SAM RADO Annual Operational Plan evaluations versus NADO annual reports; Merriam, 2009). Nevertheless, the main focus was on the heterogeneity of participants and their experiences and perspectives on NADO performance and compliance.

External expert review, which Brinkman and Kvale (2015) called peer debriefing, was a useful tactic to strengthen credibility. Two colleagues with extensive anti-doping experience helped with the following: (1) selecting participants for the second interview batch to guarantee sample appropriateness, (2) reviewing the interview questions to confirm that they were the right questions to ask, and (3) reviewing the findings of the study to ensure any biases and assumptions that had developed while working in the field had not influenced the final results.

Stating my biases and assumptions was useful to reduce and monitor subjectivity. Furthermore, committing to writing this dissertation in anti-doping and taking the role as the researcher in this study was a positive exercise for me; it was a constant reminder of where to go and where not to go based on my biases and assumptions. Likewise, being knowledgeable in the field and being perceived as someone from within was helpful in recruiting participants more easily. This resulted in being received in an atmosphere of trust and openness, which contributed to the interviews being conducted fluently and naturally and which would have been difficult to achieve had I been perceived as an outsider. This also allows readers to visualize the nuances of who I am as the researcher embedded in the research product.

Transferability

Transferability was determined by delivering a thorough analysis of the subject of study, allowing other researchers examining compliance in anti-doping in similar contexts to use the findings of this study as background information. In addition, the rich, deep, and multilayered

descriptions achieved by analyzing the data collected can be tailored and applied in future research settings (Lincoln & Guba, 1985).

Limitations of the Study

Although purposeful participant selection and triangulation were used to ensure a heterogeneous sample, this study would have benefited from having more participants with political involvement in anti-doping and even beyond anti-doping. Four out of the 10 interviewees from Peru and Bolivia (data analysis for this study included 12 interviews in total and an extensive document review process) had or have had a political role in anti-doping. The rest were or had been NADO operational contacts. Although this represents one third of the total number of interviewees, the results of the study (i.e., the nature of the findings: legislation issues, political instability, lack of political support, etc.) suggest that the research may have benefited from including more political views. It is important to note, however, that other potential political interviewees were contacted without success.

In addition, most interviews were conducted online, potentially reducing the trust and rapport that can be built between the researcher and interviewees during face-to-face interviews, which can develop into richer dialogue and responses. Given the diverse geographic nature of this study, 10 out of 12 total interviews were conducted via WhatsApp or Skype (two interviews were held at WADA). I, as the researcher, live in Canada; five subjects of the study were in Peru while the other five were in Bolivia. If resources are available, it is recommended that future research considers conducting the interview process face-to-face.

Participants and Setting

The sample for this study was obtained from a population of anti-doping experts from WADA, Peru, and Bolivia. First, two interviews with WADA experts were conducted to gain

more knowledge on compliance in anti-doping. These two participants were selected because of their compliance role within WADA and their high level of expertise on the subject. Both interviews were conducted in person at the WADA premises in Montreal, Canada. Second, 10 interviews with anti-doping specialists from Peru and Bolivia were conducted. All participants had more than 2 years of experience in the field. The participants were either working in anti-doping full-time or part-time or had worked in the industry in the past 5 years. All participants spoke either Spanish or English. There was no age or gender limitation.

Participant selection for this study was purposeful. Twelve research subjects were selected by considering their knowledge and experience in anti-doping (Sargeant, 2012). According to Patton (2002) and Merriam (1998), researchers use purposive sampling (i.e., nonrandom) methods to gather rich information from the subjects: information from which the researchers can learn the most. Furthermore, Merriam (2002) highlighted the importance of having sufficient participants to address the research questions. Although the number of participants in qualitative research is not calculated using formulas as it is in quantitative research, purposive sampling allows investigators to select key individuals from whom the researcher can learn a great deal about the research topic (Patton, 2007).

Sample size for the expert interviews was determined after reviewing a long list of candidates and selecting those that could provide meaningful information on the factors that affect Code compliance of the NADOs in Peru and Bolivia. Thus, the sample size in itself was not particularly relevant. The focus was on interviewing people that could provide relevant and useful answers to the questions (Patton, 2007). In addition, following recommendations from Glasser and Strauss (2017), the concept of saturation was used as a reference to determine whether more subjects needed to be interviewed. Saturation indicated the point at which, for a

given theme, no new categories were developing from the interviews. This was an indicator that there was no need to continue interviewing more participants. Although saturation is not a mathematical exercise, it was helpful to define the point where there was sufficient data for this research.

Five participants from each country were interviewed to keep the sample as balanced as possible. The participants had either operational or political expertise in anti-doping, which was important to acquiring a comprehensive understanding of the situation both from a technical and leadership perspective.

Participant selection was done with the advice of WADA's Regional Director for Latin America; this was key to maintaining participant suitability. With her knowledge of anti-doping in the Latin American region, she served as a guide throughout the participant selection process and recruitment.

Early recruitment of participants was done via email, WhatsApp, or telephone, depending on the level of familiarity with the participants. Those who responded favourably to the first contact were sent a second email containing the study's consent form, of which they were asked to read carefully and sign. Previously, the two compliance experts from WADA were also asked to sign the consent form. The consent form outlined the details of the study and the participants' rights throughout the research process (see Appendix A). After consent was achieved, a date was scheduled for the interviews. All 10 interviews with Peruvian and Bolivian participants were conducted via teleconference. Table 6 contains the participants' demographic information for reference.

Table 6*Participant Demographic Information*

Subject	Sex	Age range	Country/Organization	Type of role in anti-doping	Years in anti-doping
1	M	40–50	Peru	Operational	5–10
2	M	60–70	Bolivia	Political	10–15
3	M	50–60	Peru	Political	5–10
4	M	40–50	Peru	Political	0–5
5	F	30–40	Bolivia	Operational	0–5
6	F	20–30	Peru	Operational	0–5
7	M	40–50	Peru	Political	5–10
8	M	30–40	Bolivia	Operational	0–5
9	M	40–50	Bolivia	Operational	5–10
10	M	40–50	Bolivia	Operational	5–10
11	M	40–50	WADA	Operational	15–20
12	F	30–40	WADA	Operational	10–15

In this study, the setting refers to the location where the study took place. The two interviews with WADA experts took place at the agency's headquarters in Montreal, Canada. The first interview was conducted in the participant's office. The second took place in a meeting room. Both interviews lasted between 30 and 40 min and were recorded using an iPad and an Olympus VN-541PC voice recorder.

The 10 other interviews with anti-doping experts from Peru and Bolivia, as stated previously, were conducted by videoconference via WhatsApp. All participants were given the option to choose the location where they felt most comfortable, hoping they could relax and provide truthful answers. In addition, because the interviews took place virtually, the participants were recommended to select a place where they were free to speak openly and discuss a wide range of issues related to their work in anti-doping and sports.

Research Methods for Data Collection

According to Merriam (2002), the main instrument for data collection in qualitative research is the investigator. This is because of the researcher's capacity to reach out, interact, and connect with the participants in ways that other data collection techniques cannot. Furthermore, although there are several methods to collect data in qualitative studies, according to Marshall and Rossman (2016), the most used are observation, document review, and in-depth interviews. Given the exploratory nature of this study, document review and in-depth interviews were used.

Document Review

Document analysis is a systematic procedure for reviewing or evaluating documents, both printed and electronic (computer-based and internet-transmitted) material. Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008; see also Rapley, 2011). Documents contain text and images that have been recorded without a researcher's intervention. For the purposes of this discussion, other mute or trace evidence, such as cultural artifacts, is not included. Atkinson and Coffey (1997) referred to documents as "social facts," which are produced, shared, and used in socially organized ways (p. 47).

Document review was used as an organized method for analyzing and assessing digital and printed documents. As with all analytical strategies in qualitative investigation, document review aims at interpreting data to produce meaning and, therefore, greater understanding of reality (Bowen, 2009; Corbin & Strauss, 2008). Documents are developed, shared, and utilized by people; hence, they are great sources of information about society (Atkinson & Coffey, 1997).

Document review was used to populate the scoreboard developed in Stage 2 (i.e., compliance assessment) of the research process. The scoreboard was created to assess the compliance status of the NADOs in Peru and Bolivia. It is important to note that the scoreboard's themes, categories, and subcategories were developed considering the compliance definition (based on WADA's ISCCS and CMP) presented in Stage 1 of the study. Thereafter, the themes, categories, and subcategories were populated in the scoreboard template with the information extracted from the document review.

The analytical process involved discovering, choosing, assessing value (in the context of the research), and summarizing the information contained in the documents reviewed in order to insert the most meaningful information possible into the scoreboard. This allowed for a thorough understanding of NADOs' compliance and some of the factors that contribute to their compliance status. In the scoreboard, these factors are called compliance forecasters (see Chapter 4 for more details).

Although there are at least three different types of documents (public records, personal documents, and physical evidence), this study focused on public records. Public records include a wide array of information available to the public: for example, mission statements, annual reports, policy manuals, student handbooks, strategic and operational plans, and so forth. (O'Leary, 2014). All WADA and NADO documents used in this study fell within this category. A list of all the specific documents reviewed is presented in Chapter 4.

Moreover, in order to organize a systematic approach to reviewing all documents selected for the study, O'Leary's (2014) eight-step planning process was considered:

1. Develop a list of documents to study.

2. Think how manuscripts will be interpreted considering linguistic and/or cultural differences.
3. Accept and do something about preconceptions.
4. Make sure the right capacities for research have been developed.
5. Develop plans to ensure credibility.
6. Become familiar with the data under investigation.
7. Think of possible ethical implications.
8. Have a Plan B.

Document review was used in this study to

- develop a deeper understanding of the overall compliance strategy,
- assess the compliance status of the NADOs in Peru and Bolivia,
- prepare the interview questions to identify the factors that affect compliance of the NADOs in both countries,
- evaluate the findings of the study in light of the compliance concepts and theories, and
- generate new meaning on compliance and provide recommendations for future strategies.

In-Depth Interviews

This study's main data collection technique was in-depth interviews. Interviews were conducted in person and online via teleconference using WhatsApp and Skype. The interviews were recorded with an iPad and an Olympus VN-541PC voice recorder.

Interviews can either be structured, semistructured, or unstructured, depending on the needs of the research and the type of methodology selected (Creswell et al., 2007; Merriam,

2002). For this study, semistructured interviews were conducted because, in light of the interviewees' reactions and responses, it allowed for unstructured follow-up questions (Sandelowski, 2000). By structuring the interviews this way, similar information from all participants was collected. However, each interview was appropriately tailored for each subject, allowing for specific insights into the experiences of each participant to be gained in a way that otherwise would not have been possible (Merriam, 2002; Patton, 2002). Furthermore, this interview scheme allowed for a more relaxed environment, where participants felt comfortable talking about their experiences in a less rigid way (Patton, 2002). The interview questions were drafted in light of the research question, literature review, and conceptual framework.

Patton (2002) and Creswell and Plano Clark (2007) affirmed that interviews are a great tool to capture the experiences and perceptions of participants. Patton (2002) added that observation alone does not provide a complete picture of the world and, therefore, researchers must ask questions. In this context, Sandelowski (2000) stated that interviewing helps researchers better understand the nature of things by gathering the experiences of people, learning not only the who, what, and where of incidents but also the why.

Leedy and Ormrod (2005) and Wellington (2000) said interviews provide rich information from the participants by means of facts, ideas, opinions, and perceptions. According to Rowan and Wulff (2007), the validity of research methods and purpose is enhanced by "having conversations or interviews from an open perspective" (p. 451). In this sense, in-depth interviews were a key element for this dissertation as the attempt was made to build understanding on the performance and compliance of the NADOs through the views and experiences of the participants.

The purpose of in-depth interviews is to gather as much data as possible from participants through comprehensive oral examination. According to Plaisant and Shneiderman (2005), some of the most important benefits of interviews are as follows:

- Straight contact with subjects often leads to constructive propositions.
- Specific and thorough information can be obtained.
- Rich data can be achieved with a reduced number of subjects.

Interviews were conducted in two batches. During the first batch, two WADA experts were interviewed on the topic of compliance. These interviews led to an initial understanding of compliance. In addition, they were used to guide the subsequent review of the literature, develop a scheme to assess the compliance status of the NADOs in Peru and Bolivia, and prepare interview questions for Batch 2. Appendix B contains the interview questions used for Batches 1 and 2.

The second batch focused on Peru's and Bolivia's anti-doping experts. The goal of these interviews was to provide rich and descriptive information on the factors that affect Code compliance of the NADOs in Peru and Bolivia. Data analysis for the second batch was conducted by means of coding. To facilitate this process, Dedoose (i.e., an online cross-platform application for analyzing qualitative and quantitative research data) was used.

Data Analysis

According to Creswell and Plano Clark (2007), Merriam (2002), Bogdan and Biklen (2003), and Marshall and Rossman (2016), data analysis in qualitative research implicates not only the analysis of the raw collected data on itself but also the reduction, organization, and reorganization of the data into manageable and meaningful elements. Thus, considering Marshall and Rossman's (2016) methods for analyzing data in basic interpretative studies, the data were

organized from the interview transcripts by means of coding: selecting meaningful words or phrases that later, by means of proximity and pattern development, evolved into categories and themes.

First, all audio recordings were sent for transcription as soon as each interview was finished. Then full verbatim transcriptions were ordered for all interviews, which allowed for coding to start from the beginning of the interview process (Merriam, 2002; Sandelowski & Barroso, 2010). This was important because it ensured (1) the right people were being interviewed, (2) the questions that were being asked elicited meaningful answers, and (3) enough information, by means of saturation, was gathered to address the research question (Glasser & Strauss, 2017).

Although all audio files and transcriptions included personal information, such as names of the participants and references to other relevant people, this information is not available anywhere in the results of this study. In order to protect the identities and data of all participants, a random number (e.g., Subjects 1, 2, 3, etc.) was assigned to each of them, and only I know their true identities.

During the interviews, notes were taken that included key points mentioned by the participants as well as my impressions on their reactions toward certain topics or parts of the interviews. These interview summaries proved to be very useful later during the coding process.

Thematic Analysis

Marshall and Rossman (1999) defined thematic analysis as the process of organizing and interpreting the data collected. It is worth mentioning that the initial set of possible categories and themes that emerged from the literature review and the conceptual framework were either rejected or confirmed through the analytical process. Thematic analysis helped to arrange and

systematize the data, code it, and finally create categories and themes. Furthermore, thematic analysis allowed for the following to occur: (1) to understand the data, (2) to write this analysis, and, most importantly, (3) to provide answers to the research question (Marshall & Rossman, 1999).

In addition, thematic analysis was useful to identify relevant passages from the transcript texts that were linked to a shared idea, allowing these texts to be catalogued into an overall framework of themes (Gibbs, 2007, Chapter 4).

The thematic analysis strategy for this study was divided into two parts. The first part was conducted during Stage 1 of the research process (i.e., the stage where Batch 1 of the interviews took place), which aimed to understand WADA's compliance framework. This was achieved through the WADA experts' interviews. At this time, a deeper understanding of WADA's compliance strategy was gained and a definition of compliance for this dissertation was established. Thematic analysis for this first part focused on identifying categories and themes from the data collected through the interviews in order to compare the experts' views on compliance to what was stated within WADA's official compliance documents. Because compliance in anti-doping is already defined, only two interviews were conducted to achieve this goal. The central focus of this dissertation is the factors that affect compliance, not its definition. This process needed to begin by hearing what those leading compliance experts had to share, but developing a coding strategy was not necessary for this stage. Instead, a practical content analysis scheme was used. In addition, an initial view of what the experts thought were possible factors that affect Code compliance was needed to create the framework used to assess compliance of the NADOs in Peru and Bolivia in Stage 2 of the study.

The second part of the thematic analysis strategy was conducted during Stage 3 (i.e., the stage where Batch 2 of the interviews took place). This stage of the research process aimed at identifying the factors that affect Code compliance: the core of this dissertation. To accomplish this, significantly more data had to be collected than in Part 1. To get the information needed, 10 interviews were conducted and an elaborate coding scheme was developed. Coding was conducted electronically using the qualitative data analysis software Dedoose and manually using Excel.

Coding

Yin (2003) said qualitative data analysis must focus on looking for common topics, trends, and patterns throughout the database with the purpose of sense making, contributing answers to the research questions. With this purpose, coding was used to organize and sort the dataset. Coding helped to shift from data collection to interpretation of the data, allowing what was found in the data to be summarized and systematized. Therefore, coding in itself became data analysis (Gibbs, 2007, Chapter 4).

As previously mentioned, coding began as soon as an interview was finished, and the transcripts from the transcription services were received. Early interaction with the data allowed for the interview strategy to be refined. It also allowed for the mass of transcript data to be dissected into rich and manageable units of meaning, providing a structure to work with the data objectively and preventing unnecessary emphasis to be placed on a given topic based on biases (Stake, 2010).

Coding was a dynamic exercise (Birks, 2012). It allowed for new data to be analyzed and compared with data from previous interviews. In this context, codes were created, expanded, eliminated, and merged until the point of saturation. Eventually this led to the development of

children and parent codes, which were later called the themes and categories of factors that affect compliance.

In principle, an open coding strategy was used; all interview transcripts were coded line by line. This coding strategy allowed for each interview to be analyzed thoroughly (Birks, 2012). Although open coding was a tiring and time-consuming exercise, it was an excellent way to become acquainted with the data in-depth. Furthermore, this exercise produced many codes, which were later supplemented with selective coding (Urquhart, 2012).

Selective coding was used during a second phase of the coding process. This phase began when open coding had reached a point of saturation, and it was time to start forming categories and later themes. This is the point where I switched from coding electronically using Dedoose to coding manually using Excel; Dedoose was only used during the first part of the coding process (Bryant & Charmaz, 2010). The software was useful to sort the data. However, consolidating the categories and themes manually to ensure proper qualitative theme analysis was preferred, rather than mainly relying on the frequencies produced by the software.

Dedoose was used as the main source for data storage (i.e., interview audio recordings, excerpts, and a coding matrix) and data analysis.

Chapter 4: Findings

In Chapter 4, I present the study findings. This chapter is divided into two parts: Compliance Assessment of Peru's and Bolivia's NADOs and Factors That Affect Compliance of Peru's and Bolivia's NADOs: Key findings.

To assess compliance of Peru's and Bolivia's NADOs and subsequently identify the factors that affect them, it was first necessary to define compliance in the anti-doping context. The details of this were presented in the Context section of Chapter 2.

The first part of this chapter provides an assessment of the compliance status of the NADOs in Peru and Bolivia. This assessment aimed to analyze not only compliance-related matters but also those that are closely related to it and that may have the potential to affect it (e.g., resources, strategy, etc.). This provided a comprehensive understanding of the compliance construct. To perform the evaluation, a scoreboard was created in Excel based on the compliance definition developed in Stage 2 of the research process and populated it with the data obtained from an in-depth review of WADA's, SAM RADO's, and NADOs' documents and other relevant sources of information (i.e., ADAMS, CCQ, Livelink, etc.).

The second part identifies the factors that affect compliance of the NADOs in Peru and Bolivia and presents the findings of the study. To accomplish this, 10 semistructured, open-ended interviews with anti-doping experts from both countries were conducted. To keep the data balanced, five subjects from each country were interviewed. All 10 subjects had either technical or political anti-doping expertise. Subject selection was conducted in coordination with WADA's Latin America Office to ensure know-how. Data analysis, including coding and theme analysis, for this section was conducted with the help of Dedoose, a cross-platform application for

analyzing qualitative research with text, photos, audio, videos, spreadsheet data and more, and Excel.

Compliance Assessment of Peru's and Bolivia's NADOs

This assessment was conducted to understand the Peruvian and Bolivian NADOs' compliance status with the Code. The assessment aimed to gather data regarding compliance-related matters and those factors that may affect overall compliance. In addition, the results of the assessment were used to develop the interview questionnaires for Stage 3 of the research process as well as make sense of the research findings, linking compliance gaps with factors that affect compliance. The five-stage research process is shown in Figure 1, Chapter 1.

The compliance assessment was completed with data extracted from multiple sources. These included but were not limited to informal conversations with colleagues at WADA, NADO and RADO documents, anti-doping literature, WADA sources (such as ADAMS, Livelink, Netsuite), Program Development and NADO/RADO Relations Department files, and Latin America Regional Office files.

The compliance assessment was conducted by creating a scoreboard. The scoreboard was formulated based on the compliance definition established in Stage 1 of the research process and the document review process.

The information gathered from all the sources was poured into the scoreboard in Excel. The scoreboard is a tool that displays all the data in an organized and systematic way, simplifying analysis and interpretation of the data. Due to size limitations, Table 7 shows only the documentary compliance part of the scoreboard as an example. The scoreboard includes data that were not used to evaluate the signatory's compliance status but were used for demographic

and background purposes (e.g., country name, signatory's name, signatory's name abbreviation, etc.).

Data in the scoreboard were subdivided into three groups of variables: "compliance", "forecasters", and "compliance/forecaster development". Compliance variables refer to those responsibilities which signatories are obliged to implement under the Code and International Standards. Development variables are a combination of compliance and forecaster variables that were analyzed from a multiannual perspective.

Upon examining Table 7, one can see that the scoreboard is divided into columns (i.e., theme, subthemes, categories, subcategories, and variables) and two main rows at the bottom of the table for Bolivia's and Peru's NADOs, where each of the variables in the scoreboard is assessed. A specific explanation of each variable is provided in more detail in the next sections of this chapter. However, in a nutshell, the scoreboard was developed to assess whether the signatory is compliant (see columns with compliance variables) and/or if it has the necessary inputs or mechanisms in place to achieve compliance (see columns with forecaster variables).

Let us use a variable from Table 7 to explain how the scoreboard functions. Variable 1 (v1) is a forecaster type variable. It provides useful information on the state of compliance of a signatory, but it is not itself a compliance issue. Variable 1 is associated with whether a country has established a National Anti-Doping Organization (NADO) or depends on the Regional Anti-Doping Organization (RADO) to implement anti-doping programs. Although delegating anti-doping responsibilities to a RADO is acceptable under current compliance normative, it can be seen in the context of NADOs as an indicator of limited support for anti-doping from the relevant sports authorities. Although this is not true in all cases, signatories are expected to meet their responsibilities under the Code. Therefore, Variable 1 provided a data point within the

scoreboard that was compared and cross-checked with other variables to assess and, therefore, understand compliance as an overall construct.

With regard to Variable 1 in Table 7, Peru has a NADO and Bolivia depends on the RADO. Although both countries are RADO member countries, Bolivia has delegated all anti-doping responsibilities to the RADO, while Peru has retained most. Although this is only one indicator in the scoreboard and should not be interpreted in isolation, when it is analyzed in combination with the rest of variables, it provides a meaningful view of the compliance status of each NADO.

Table 7

Example of a Part of the Scoreboard Used to Assess Compliance of the NADOs in Peru and Bolivia

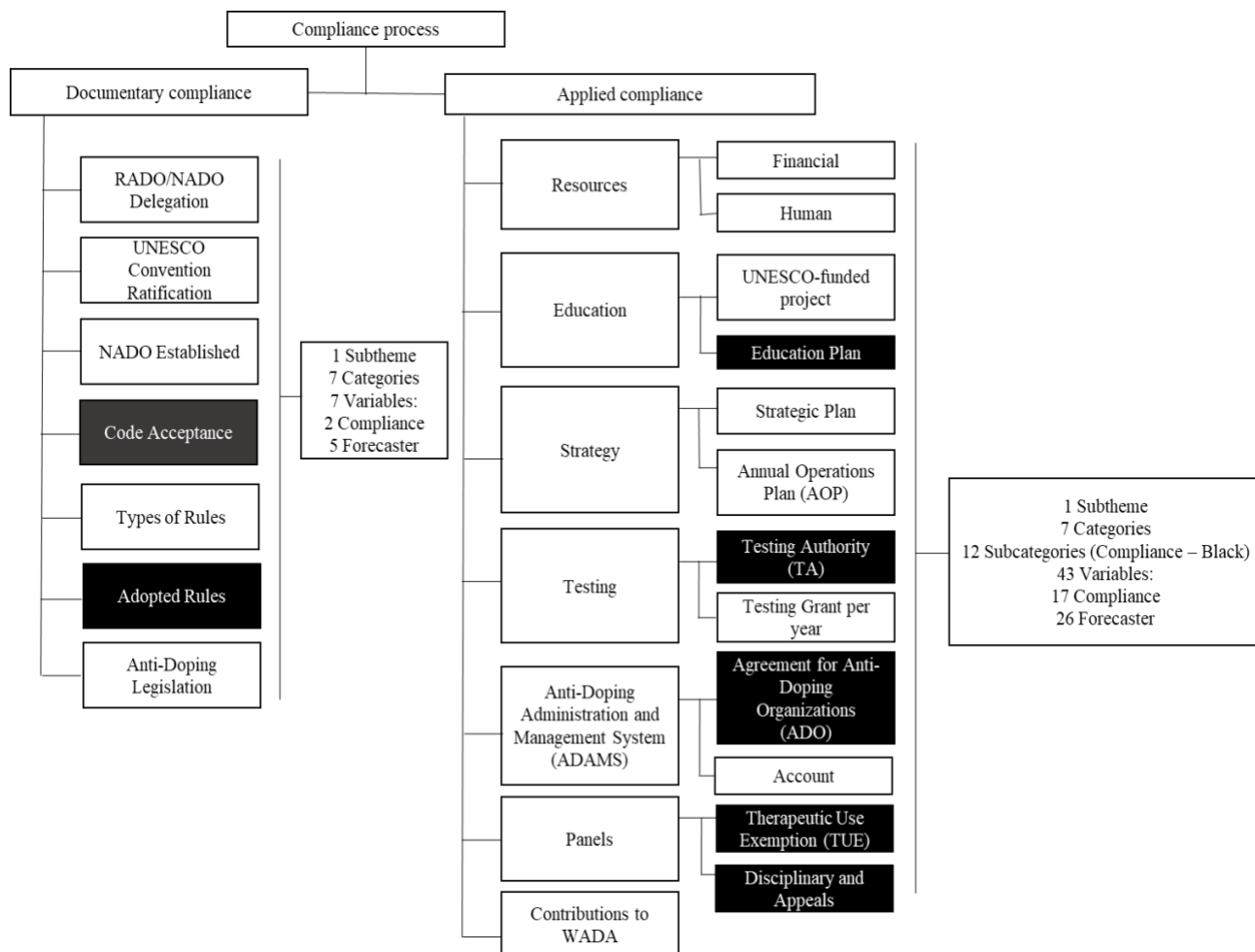
Country	Abbr.	Compliance Process							Signatory name
		Documentary compliance (Code acceptance/Implementation of rules)							
		RADO/ NADO delegation	UNESCO Convention ratified	NADO established	Code acceptance	Types of rules	Adopted rules	Anti- Doping legislation	
		fv1	fv2	fv3	cv4	fv5	cv6	fv7	
Bolivia	BOL	RADO (SAM RADO)	Yes	NOC	Yes	NOC	Yes	No	Bolivian Olympic Committee
Peru	PER	NADO (SAM RADO)	Yes	NADO	Yes	NADO	Yes	No	Peru National Anti-Doping Commission

Note. RADO = 0, NOC = 0, NADO = 1, Yes = 1, No = 0. fv = forecaster variable; cv = compliance variable. (SAM) RADO = (South America) Regional Anti-Doping Organization; NADO = National Anti-Doping Organization; UNESCO = United Nations Educational, Scientific and Cultural Organization; NOC = National Olympic Committee.

The scoreboard's theme (1), subthemes (2), categories (14), subcategories (12), and variables (50) presented in Figure 6 were established based on the compliance definition created from the WADA compliance expert interviews and the compliance literature.

Figure 6

Scoreboard Used to Evaluate Compliance of the NADOs in Peru and Bolivia



Compliance in anti-doping may be understood as a dynamic construct that aims at ensuring signatories are developing and implementing Code-compliant anti-doping programs. Although compliance is achieved when a signatory implements specific Code provisions, compliance may be conceptualized through the following principle: compliance equals inputs (e.g., resources and strategy) plus implementation of Code provisions (e.g., a testing program

and having anti-doping rules). In view of this (i.e., to achieve compliance there is a need for inputs), this assessment looked at both aspects: inputs (described as forecasters) and compliance.

Therefore, depending on their nature, variables were divided into three groups:

- **compliance:** specific Code and International Standard provisions (e.g., adopted anti-doping rules: Yes = 1, No = 0).
- **forecaster:** compliance predicting aspects. Forecasters are not Code and International Standard provisions. For example, the signatory has no NADO and it has delegated all anti-doping responsibilities to the RADO. This may be seen, in some cases, as an example of limited support for anti-doping activity in a country: NADO = 1, NOC = 0.
- **compliance/forecaster development:** Most compliance or forecaster development variables were analyzed from a multiannual perspective. This was done with the purpose of assessing anti-doping compliance over time to see if there is sustainable development. Not all variables could be analyzed in a multiannual way. For example, accepting the Code is typically done once; therefore, it was sufficient to assess it one time. There was no added value if counted every year. However, having a budget for the last 3, 4, or 5 years may be seen as an indicator of development, which is why these were called development type variables. Development variables were looked at for a period of 4 years: between 2015 and 2018 (e.g., budget for 2015–2018). This allowed for development and compliance evolution trends to be exposed.

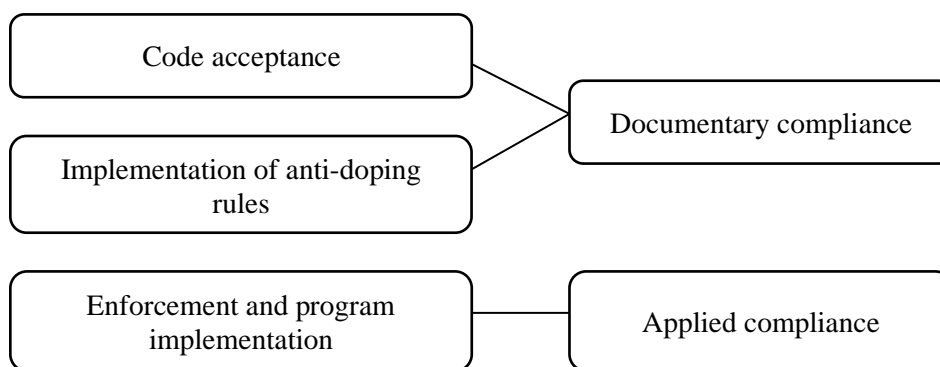
The scoreboard assessed variables in three ways:

- Yes/No: “Yes” means compliant (or may indicate forecaster development variables); Yes = 1. “No” means noncompliant (or may indicate no development or limited development); No = 0.
- NADO/NOC/RADO: “NADO” means more development; NADO = 1. “NOC” and “RADO” mean less development; NOC = 0, RADO = 0.
- High/Medium/Low: These are all forecaster development variables; High = 2, Medium = 1, Low = 0.

The compliance process was divided into three parts: (1) Code acceptance, (2) implementation of anti-doping rules, and (3) enforcement and program implementation. In light of the literature and the experts’ interviews, the three-step compliance process was divided (the theme being compliance) into two subthemes: (a) documentary compliance, incorporating Code acceptance and the adoption of anti-doping rules; and (b) applied compliance, linked to program implementation (see Figure 6). Both subthemes incorporate compliance, forecasters, and compliance/forecaster development variables.

Figure 7

The Three-Step Compliance Process Divided into Documentary Compliance and Applied Compliance

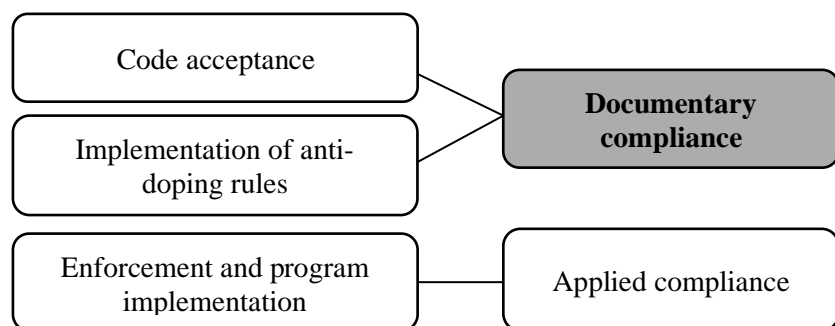


Documentary Compliance Assessment of the NADOs in Peru and Bolivia

Documentary compliance can be seen as the administrative part of the compliance process. At this stage, signatories ratify the UNESCO Convention Against Doping in Sport, accept the Code, and adopt anti-doping rules (see Figure 8). It is important to note that ratifying the Convention is not a Code compliance matter. However, the view of compliance that is presented is holistic; therefore, it includes compliance with the Convention as part of the overall compliance framework.

Figure 8

Documentary Compliance



Anti-doping program implementation is not needed at this stage. However, after this stage is completed, the signatory must immediately implement Code-compliant anti-doping programs.

This subtheme, documentary compliance, was divided into seven categories (i.e., NADO/RADO delegation, UNESCO Convention ratified, NADO established, Code acceptance, Types of rules, Adopted rules, and Anti-Doping legislation) and seven variables (v1–v7). Based on the types of variables (i.e., Yes/No variables) in this section, the total number of points a signatory could achieve for this category was seven.

Documentary compliance provided the first view of the compliance status of Bolivia's and Peru's anti-doping programs. Table 8 presents the evaluation of all the documentary compliance construct variables.

Table 8

Bolivia's and Peru's Documentary Compliance Status as of September 2020

		Compliance Process							
		Documentary compliance (Code acceptance/Implementation of rules)							
Country	Abbr.	RADO/ NADO delegation	UNESCO Convention ratified	NADO established	Code acceptance	Types of rules	Adopted rules	Anti- Doping legislation	Signatory name
		fv1	fv2	fv3	cv4	fv5	cv6	fv7	
Bolivia	BOL	RADO (SAM RADO)	Yes	NOC	Yes	NOC	Yes	No	Bolivian Olympic Committee
Peru	PER	NADO (SAM RADO)	Yes	NADO	Yes	NADO	Yes	No	Peru National Anti-Doping Commission

Note. RADO = 0, NOC = 0, NADO = 1, Yes = 1, No = 0. fv = forecaster variable; cv = compliance variable. (SAM) RADO = (South America) Regional Anti-Doping Organization; NADO = National Anti-Doping Organization; UNESCO = United Nations Educational, Scientific and Cultural Organization; NOC = National Olympic Committee.

In Table 8, all the forecaster (noncompliance) variables are in gray, and all the compliance variables for the subtheme documentary compliance are in black. The following is a description of each variable:

- RADO/NADO delegation (forecaster): RADO = 0, NADO = 1. Variable 1 refers to whether a country has an established NADO that does not delegate anti-doping areas to the RADO.
- UNESCO Convention ratified (forecaster): Yes = 1, No = 0. Variable 2 refers to whether a country has ratified the UNESCO Convention Against Doping in Sport.

- NADO established (forecaster): NADO = 1, NOC = 0. Variable 3 refers to whether a country has established a NADO. When a country has not established a NADO, according to the Code, the NOC becomes the acting NADO by default. This may be an indicator of limited anti-doping development.
- Code acceptance (compliance): Yes = 1, No = 0. Variable 4 refers to whether a signatory has accepted the Code by signing WADA's Code Acceptance Form.
- Types of rules (forecaster): NADO = 1, RADO = 0. Variable 5 refers to whether a country has NADO rules or has adopted RADO's rules.
- Adopted rules (compliance): Yes = 1, No = 0. Variable 6 refers to whether a country has adopted WADA approved anti-doping rules.
- Anti-Doping legislation (forecaster): Yes = 1, No = 0. Variable 7 refers to whether a country has specific anti-doping legislation in place.

The data recollected for this section and assessed in Table 8 were gathered from the files of WADA's Program Development and NADO & RADO Relations Department, and the information available in WADA's Livelink, a data storage management system, for Peru and Bolivia.

Although documentary compliance only included the administrative part of the compliance process, it provided a first view on the compliance status of the NADOs in Peru and Bolivia. Next, key preliminary takeaways from this section are presented.

With regard to the Peruvian NADO, it had a score of 6 out of 7 (86.71%) in the documentary assessment scale (see Table 9). Although this was only with regard to documentary compliance, it was a positive indicator in terms of anti-doping development.

On the other side, Bolivia had a score of 3 out of 7 (42.85%) in the documentary compliance assessment scale (see Table 9). Although it was early in the process to understand the full extent of these results, they may indicate that there are issues with Bolivia's anti-doping development that need to be addressed.

Table 9

Documentary Compliance Scores for the NADOs in Peru and Bolivia

Variables	Scores	
	Peru	Bolivia
fv1: RADO/NADO delegation	1	0
fv2: UNESCO Convention ratified	1	1
fv3: NADO established	1	0
cv4: Code acceptance	1	1
fv5: Types of rules	1	0
fv6: Adopted rules	1	1
fv7: Anti-Doping legislation	0	0
Total ^a	6	3
Assessment (%)	85.71%	42.85%

Note. fv = forecaster variable; cv = compliance variable. RADO = Regional Anti-Doping Organization; NADO = National Anti-Doping Organization; UNESCO = United Nations Educational, Scientific and Cultural Organization.

^a Number of maximum points = 7.

In addition, Bolivia has not established a NADO (v3). Although Bolivia has ratified the UNESCO Convention, accepted the Code, and recently (September 2018) adopted NOC anti-doping rules (v5), the country still needs to work toward developing an independent, fully established NADO. Currently, the Bolivian Olympic Committee (BOC) acts as the NADO by default. The Code determines that if a country does not have a NADO, the NOC shall assume this obligation.

Table 8 shows that Bolivia depends on the SAM RADO for most of its anti-doping activity (v1). This includes but is not limited to testing, ADAMS administration, education, Results Management, and Therapeutic Use Exemptions (TUEs).

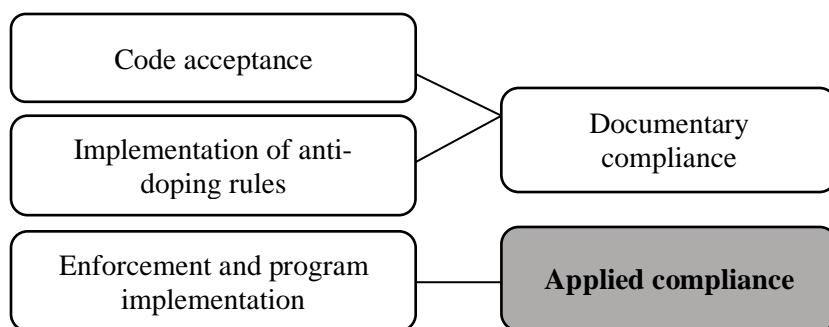
Finally, neither Bolivia nor Peru have specific anti-doping legislation in place. Although having anti-doping legislation is not a requirement of the Code, it may affect a NADO's capacity to implement anti-doping programs.

Applied Compliance Assessment of the NADOs in Peru and Bolivia

In the framework of the compliance process, applied compliance refers to program implementation. It evaluates anti-doping program implementation and determines whether these programs are being implemented in line with the Code, and to what extent (see Figure 9). This section focuses on whether the NADOs are making the transition from documentary to applied compliance or, in other words, from paper to the implementation of programs.

Figure 9

Applied Compliance



Implementing Code-compliant anti-doping programs requires ADOs to have sufficient resources to do their job. The literature reviewed suggested anti-doping is demanding and technical. Therefore, it cannot be done effectively without resources. ADOs must also invest in staff training to keep up with the constant changes in the field. However, not all ADOs operate in

the same environment (e.g., doping trends, level of sport, sport population, etc.); therefore, program implementation needs to vary significantly across the board.

Due to the complexity of this section and the large number of categories, an individual assessment is provided for each of the categories, and a table with the overall applied compliance assessment is provided at the end.

The assessment of the NADOs' anti-doping programs provides a clear view of their current anti-doping strengths and weaknesses. Furthermore, the data analyzed suggest that compliance issues (e.g., Bolivia's lack of testing) cannot be understood properly without linking them to the relevant compliance forecasters (e.g., Bolivia's limited resources). This could be an initial stopping point to begin reflecting on the way the current compliance strategy is formulated and what could be done to enhance its effectiveness.

Ultimately, signatories can only be held accountable for compliance matters. However, a robust compliance monitoring program should map all of the relevant aspects that have the potential to affect compliance and continue to implement mechanisms that assist signatories in addressing problems in a proactive, preventive, and effective way.

Although this is not an easy task, a thorough understanding of the factors affecting compliance for a particular set of signatories with common characteristics (e.g., economic status, language, culture, politics, doping risks, etc.), as in the case of Peru and Bolivia, may assist WADA and the RADOs in the process of developing anti-doping strategies that are more in tune with the realities and needs of the signatories.

Analysis of the data for the applied compliance section was divided into seven categories, 12 subcategories, and 43 variables. The following is a description of each variable:

- Financial resources (forecaster development): Yes = 1, No = 0. Variables 8–11 refer to whether the NADOs had a budget for anti-doping for the years 2015–2018.
- Human resources (forecaster development): Low < 2, Medium \leq 4, High \geq 5. Variables 12–15 refer to whether the NADOs had an adequate number of staff (for T2 and T3 countries) to conduct anti-doping activity for the years 2015–2018.
- Education/UNESCO funded project (forecaster development): Yes = 1, No = 0. Variables 16–18 refer to whether the NADOs collaborated with UNESCO to develop an education project for anti-doping for the years 2015–2017. The UNESCO fund was not available for most signatories in 2018.
- Education/Education plan (compliance development): Yes = 1, No = 0. Variables 19–22 refer to whether the NADOs developed and implemented an education plan according to WADA’s Education and Information Guidelines for the years 2015–2018.
- Strategy/Strategic plan (forecaster): Yes = 1, No = 0. Variable 23 refers to whether the NADOs have developed a strategic plan or not. This variable did not refer to a historical compliance evolution, as strategic plans are normally multiannual instruments (e.g., 2015–2018).
- Strategy/Annual operational plan (forecaster development): Low (0) < 50%, Medium (1) \geq 50% but \leq 75%, High (2) > 75%. Variables 24–27 refer to (1) whether a NADO had an operational plan and (2) the percentage of effectiveness based on goal achievement.
- Testing/Testing authority (TA; compliance development): Yes = 1, No = 0. Variables 28–31 refer to whether the NADOs had tested at TA for the years 2015–2018. Testing

- as TA requires both human and financial resources. Being able to test as TA may be seen as an indicator of anti-doping development.
- Testing Delegation Agreement (forecaster): Yes = 1, No = 0. Variable 32 refers to whether a RADO member country that wishes to delegate all or part of its testing program to the RADO had signed the Testing Delegation Agreement.
 - Testing grant/per year (forecaster development): Yes = 1, No = 0. Variables 33–36 refer to whether a RADO member country had used WADA’s testing grant to supplement its testing program for the years 2015–2018.
 - ADAMS Agreement for ADOs (compliance): Yes = 1, No = 0. Variable 37 refers to whether an ADO had signed WADA’s ADAMS Agreement.
 - ADAMS account (forecaster): NADO = 1, RADO = 0. Variable 38 refers to whether a NADO had its own ADAMS account or if it had delegated that responsibility to the RADO. To use ADAMS, an ADO needs to have a testing program of its own. Therefore, operating ADAMS may be seen as an indicator of development.
 - Panels/TUE (compliance development): No = 0, RADO = 1, NADO = 2. Variables 39–42 refer to whether a NADO had (1) no TUE panel, (2) a TUE panel by delegation of responsibility to the RADO, or (3) its own TUE panel. As it requires expertise and resources, having a trained TUE NADO panel may be seen as an indicator of NADO development.
 - Panels/Disciplinary and appeals (compliance development): No = 0, RADO = 1, NADO = 2. Variables 43–46 refer to whether a NADO had (1) no disciplinary/appeals panels, (2) disciplinary/appeals panels by delegation of responsibility to the RADO, or (3) its own disciplinary/appeals panels. As having

these panels requires expertise and resources, having them may be seen as an indicator of NADO development.

- Contributions to WADA (forecaster development): Yes = 1, No = 0. Variables 47–50 refer to whether a NADO had paid its yearly contributions to WADA for the years 2015–2018. Per the UNESCO Convention Against Doping in Sport, WADA funds come from the governments (50%) and from the International Olympic Committee (50%). The contributions are based on a country's Gross Domestic Product.

Resources for Anti-doping. This category focused on NADOs' human and financial resources between 2015 and 2018. These two subcategories were formed by eight forecaster development variables. From the perspective that both subcategories are critical to NADOs' operations, this category was viewed as an important compliance forecasting factor.

Data for this category and subcategories were primarily extracted from the files of WADA's Program Development and NADO & RADO Relations Department, and two of WADA's data storage management systems (Livelink and NetSuite). In addition, Peru's NADO Director was contacted via WhatsApp in order to confirm the information that WADA had on file for the country's 2016–2018 budget and human resources. At this stage, it was not necessary to contact Bolivia's anti-doping representative to confirm the validity of WADA's information in the country because WADA and SAM RADO's records suggested the country did not have any resources for anti-doping during this period, other than one part-time staff member.

The following documents were reviewed to assess Peru's and Bolivia's human and financial resources: SAM RADO's annual operational plan evaluations for 2016–2018, Peru's annual operational plan evaluations for 2016–2018, SAM RADO's Board meeting minutes for

2016–2018 (including country reports on annual activity), and SAM RADO’s midterm and annual reports for 2016–2018.

Financial Resources. Table 10 shows the 2015–2018 financial resources data for Bolivia and Peru. The variables for this group refer to whether the NADOs’ had a budget for anti-doping activity within a given year (Yes = 1, No = 0).

Financial resources are fundamental for all NADO operations (i.e., for hiring of staff, purchasing of equipment and material for anti-doping programs, contracting services, etc.). Limited financial resources can impact compliance.

As shown in Table 10, Bolivia did not have a budget for anti-doping between 2015 and 2018. On the other hand, Peru has had a steady budget since 2016. In 2018, Peru’ government invested approximately USD 3,339,480 in its program for the development of elite athletes (i.e., Programa de Apoyo a Deportistas Calificados y Deportistas Calificados de Alto Nivel). This initiative is led by the Dirección Nacional de Deporte Afiliados (DINADAF). Within the program, DINADAF has around 710 athletes (this number changes regularly). In this context, the annual average investment per capita is USD 4,703. When it comes to anti-doping, the NADO’s budget in 2018 was USD 163,000. For the same pool of athletes, this represents an investment of USD 229 per capita.

Table 10*Bolivia's and Peru's Financial Resources*

Country	2015	2016	2017	2018
	fv8	fv9	fv10	fv11
	audited Sept 2018	audited Sept 2018	audited Sept 2018	audited Sept 2018
Bolivia	No	No	No	No
Peru	No	Yes USD 120,000	Yes USD 173,000	Yes USD 163,000

Note. fv = forecaster variable. No = 0, Yes = 1.

It is important to highlight that under current Code provisions, having financial resources in itself is not a compliance matter. However, it has a direct impact on the capacity of signatories to implement anti-doping programs. Therefore, the fact that Bolivia had no financial resources for anti-doping had a direct impact on NADO's capacity to remain compliant with the Code.

Human Resources. Table 11 presents the 2015–2018 human resources data for Bolivia and Peru. The variables for this group refer to the number of human resources each organization had for anti-doping activity in a given year: Low < 2, Medium ≤ 4, High ≥ 5. The assessments were conducted taking into consideration the average number of human resources in the NADOs of the three America RADOs (i.e., 27 countries and an average of 1.5 staff) and the non-RADO countries in the same continent (i.e., 14 countries and an average of four staff). Organizations with less than two staff members were given 0 points on the scale.

Table 11*Bolivia's and Peru's Human Resources*

Country	2015	2016	2017	2018
	fv12	fv13	fv14	fv15
	audited Sept 2018	audited Sept 2018	audited Sept 2018	audited Sept 2018
Bolivia	Low	Low	Low	Low
Peru	Low	Medium	Medium	Medium

Note. fv = forecaster variable. Low = < 2, Medium = ≤ 4, High = ≥ 5.

Between 2015 and 2018, Bolivia only had one part-time employee for anti-doping, accumulating 0 points in the assessment for the 4-year period. The Peruvian NADO experienced a small but steady growth in the number of full-time employees working for the organization. Going from zero in 2015 to two in 2016 and four in 2017 and 2018.

Anti-Doping Education. Based on the Code and WADA's *Information/Education Guidelines to Prevent Doping in Sport* (Education Guidelines), the main objective of anti-doping education is conservation of the spirit of sport by promoting a level playing field for all athletes across sports and countries (WADA, 2020b). Therefore, it is important that signatories plan, implement, and evaluate their education activities and programs.

This category was divided into two subcategories formed by forecaster development variables: UNESCO funded projects and education plan (Yes = 1, No = 0).

UNESCO Funded Projects. The International Convention Against Doping in Sport promotes the fight against and prevention of doping in sport. The Convention has, as of September 2018, 194 signatories, including nine associated with a State. It aims at protecting the values of sport, fair play, and public health.

In this context, UNESCO contributes to protect clean sport by offering signatories a Fund for the Elimination of Doping in Sport (Voluntary Fund). Unfortunately, contributions to the

Voluntary Fund have declined significantly, forcing UNESCO to suspend it in 2018. The Voluntary Fund was established in 2008 to assist member countries implement anti-doping projects, focusing on three main objectives: education, policy advice, and capacity building (WADA, n.d.-j).

This subcategory focused on whether Peru and Bolivia implemented UNESCO projects between 2015 and 2017. The UNESCO Fund applications for 2015–2017 and the UNESCO Fund approvals for Latin America from WADA’s Regional Office files were reviewed to assess this subcategory.

Table 12 shows that between the 2015–2017 cycle, Bolivia did not apply to the Voluntary Fund. This is an important concern, considering that Bolivia, as it was previously revealed, does not have financial resources for anti-doping. Peru applied and was granted the Voluntary Fund in 2017. Although it was not included in the analysis for this study, the data reviewed from WADA’s Latin America Regional Office unveiled that Bolivia received the Voluntary Fund in 2010 and 2011. In addition to 2017, Peru also received the Voluntary Fund in 2014.

Table 12

Bolivia’s and Peru’s UNESCO Fund

Country	2015	2016	2017
	fv16	fv17	fv18
	audited Sept 2018	audited Sept 2018	audited Sept 2018
Bolivia	No	No	No
Peru	No	No	Yes

Note. fv = forecaster variable. No = 0, Yes = 1. UNESCO = United Nations Educational, Scientific and Cultural Organization.

Education Plan. Article 18.1 of the Code requires signatories to develop, implement, and evaluate their education programs. While doing this, they need to ensure that their delivery of

anti-doping education is conducted in a planned and systematic manner. Although WADA is in the process of developing an International Standard for Education, which will not enter into effect until January 2021, it currently has a wide variety of tools and guidelines available to assist signatories in implementing effective education programs.

This subcategory was composed of compliance development variables. It focused on whether Peru and Bolivia had education plans that met the basic components established in WADA's Education Guidelines. The documents reviewed for this subcategory were the following: Peru's AOP for 2016–2018, Bolivia's 2017 AOP, Peru's education plans for 2017–2018, SAM RADO's Board meeting minutes, including country reports for 2016–2018, and SAM RADO's AOP for 2016–2018.

The information reviewed, presented in Table 13, revealed that Bolivia did not develop an education plan that satisfies the criteria established in WADA's Education Guidelines for the period under analysis. However, the data does suggest that Bolivia conducted a series of random education activities (i.e., talks to parents, coaches, and doctors) during 2016, 2017, and 2018.

Table 13

Bolivia's and Peru's Education Plan

Country	2015	2016	2017	2018
	cv19	cv20	cv21	cv22
	audited Sept 2018	audited Sept 2018	audited Sept 2018	audited Sept 2018
Bolivia	No	No	No	No
Peru	No	No	Yes	Yes

Note. cv = compliance variable. No = 0, Yes = 1.

Peru started developing education plans harmonized with WADA's Education Guidelines in 2017. Data from the 2017 and 2018 SAM RADO Board meeting minutes along

with the 2017 and 2018 SAM RADO annual operational plans revealed that, as part of the RADO's education objectives, each RADO member country should have developed and implemented an education plan following WADA's Education Guidelines. While all other SAM RADO member countries (i.e., Peru, Paraguay and, recently, Ecuador) have been successful in meeting the RADO's objectives, Bolivia has been unable to achieve this goal.

NADOs' Strategy. Strategic planning is a method to help organizations be more effective at reaching their objectives. Although strategy is not a compliance issue, it may affect compliance status.

This category focused on NADOs' strategy. It was divided in two subcategories: strategic plan and annual operational plan. The documents reviewed to assess Peru's and Bolivia's strategy were the following: SAM RADO's strategic plan for 2016–2019, SAM RADO's AOP evaluations for 2016–2018, Peru's AOP evaluations for 2016–2018, Bolivia's 2017 AOP, SAM RADO's Board meeting minutes, including country reports, SAM RADO's midterm and annual reports for 2016–2018, and SAM RADO's strategic and AOP templates.

Strategic Plan. This subcategory had one forecaster variable. Due to the multiannual nature of strategic plans (i.e., 4 to 5 years), this subcategory specifically focused on whether the NADOs currently have strategic plans in place (Yes = 1, No = 0). The data reviewed suggest that neither country has strategic plans in place. Details are located in Table 14 with NADOs' overall strategy.

Annual Operational Plan. The subcategory of annual operational plan (AOP) was formed by forecaster development variables. It focused on not only whether Peru and Bolivia had developed AOPs for the years 2015–2018 but also their degree of implementation. According to the AOP template that SAM RADO member countries use, the AOP degree of

implementation, or effectiveness, is analyzed by looking at the relationship between goal and goal achievement. In this context, this AOP subcategory was assessed under the following criteria: Low $< 50\%$, Medium $\geq 50\%$ but $\leq 75\%$, High $> 75\%$. In other words, NADOs that did not reach 50% of their planned goals for a given year have a low degree of AOP effectiveness. Those that reached 50% to 75% of their planned goals have a medium degree of AOP effectiveness, and those that reached above 75% of their goals have a high degree of AOP effectiveness.

Although having an AOP is not a compliance issue, not having one may affect compliance, as there is a strong correlation between planning and organizational success. The data reviewed suggest that both countries have started to use operational planning to guide their annual work.

Table 14 shows that Bolivia developed an AOP for the year 2017, which was partially implemented but not evaluated. However, information from the 2018 SAM RADO Board meeting country report indicated that Bolivia conducted testing through WADA's testing grant and led two capacity-building trainings for NADO staff in cooperation with SAM RADO and the Chilean NADO. Although there is no formal evaluation of the effectiveness of Bolivia's 2017 AOP, the data suggest their degree of implementation was low (i.e., less than 50% effectiveness). Furthermore, they did not develop AOPs in 2015, 2016, or in 2018.

Table 14*Bolivia's and Peru's Strategy*

Country	Strategic plan ^a		Annual operational plan ^b		
	Multiannual	2015	2016	2017	2018
	fv23	fv24	fv25	fv26	fv27
	audited	audited	audited	audited	audited
	Sept 2018	Sept 2018	Sept 2018	Sept 2018	Sept 2018
Bolivia	No	Low	Low	Low	Medium
Peru	No	Low	Medium	High	High

Note. fv = forecaster variable.

^a No = 0, Yes = 1. ^b Low = < 50%, Medium = $\geq 50\%$ but $\leq 75\%$, High = > 75%.

Peru has been using annual operational planning since 2016, achieving medium (50% to 75% effectiveness) and high (above 75% of effectiveness) AOP effectiveness in 2016 and 2017, respectively. The NADO developed an AOP in 2018 but a copy of the evaluation could not be obtained for review.

Although Peru did not conduct a formal AOP evaluation during 2016, the comparison between the planned 2016 AOP and the reported activities presented in the 2017 SAM RADO Board meeting in Paraguay show that they probably reached a medium (50%–75%) level of implementation.

A formal AOP evaluation was performed at the end of 2017, with an overall result of 86% effectiveness. The following is a breakdown per area: Funding 78%, Education 160%, Testing 100%, Communication 90%, and Investigation 0%.

Anti-Doping Testing Programs. The main objective of anti-doping testing is catching dopers and deterring athletes from doping in sports. The purpose of WADA's International Standard for Testing and Investigations (ISTI) is to harmonize the testing criteria and to lay the groundwork for signatories to plan and implement intelligent and effective testing programs, both in-competition (IC) and out-of-competition (OOC; WADA, n.d.-g). According to Code Article 5, and all its relevant numerals, ADOs shall conduct IC and OOC testing on athletes under its jurisdiction.

This category was divided into two subcategories: testing as testing authority (TA) and testing under WADA's testing grant (TG). Both subcategories were composed of development variables (i.e., data for the 2015–2018; Yes = 1, No = 0).

Testing as Testing Authority. The Code and the ISTI require signatories to implement intelligent, effective, and risk-based testing programs for all athletes and sports under its authority.

This subcategory was formed by compliance development variables. Because this is considered a very important aspect of anti-doping, the evolution of NADOs' testing programs were examined in order to better understand the countries' anti-doping programs. The documents reviewed for this subcategory were the following: *WADA's Anti-Doping Testing Figures Report for 2015–2017*, *WADA's Guide to Monitoring Testing*, ADAMS Laboratory report for 2015–2018, and ADAMS Doping Control Forms report for 2015–2018.

After reviewing different WADA sources to check and cross-check testing information for Peru and Bolivia, a significant administrative issue was identified, which was later clarified by reading *WADA's Guide to Monitoring Testing*. In order to produce precise numbers, TAs must perform regular conciliation of testing figures (i.e., a number reconciliation [accounting

type] that requires the review and comparison of WADA-accredited laboratory reports [lab reports] and Doping Control Form reports [DCF reports]). Thus, it is difficult to determine the exact number of tests conducted by many TAs.

On June 1, 2016, WADA's Executive Committee made it mandatory for signatories to upload DCFs into ADAMS no later than 15 days after sample collection (Institute of National Anti-Doping Organizations, 2016). Although failure to comply may result in a declaration of noncompliance, many stakeholders (particularly from small Tier 3 ADOs) still upload samples beyond the 15-day deadline, do it wrong, or do not adhere to the timeline at all. These problems (e.g., DCFs not entered in the system, DCFs stating the wrong sport or discipline, DCFs with the wrong TA, etc.) generate a series of data errors in ADAMS, making it challenging to obtain accurate testing data.

However, *WADA's Anti-Doping Testing Figures Report* for 2015–2017 showed that Bolivia did not conduct any testing as a TA for the years 2015 and 2017 (see Table 15). Furthermore, 2018 lab and DCF reports indicated that Bolivia had not tested as a TA between January and September 2018, the date when this analysis was conducted.

Table 15

Bolivia's and Peru's Testing Authority Figures

Country	2015	2016	2017	2018
	cv28	cv29	cv30	cv31
	audited Sept 2018	audited Sept 2018	audited Sept 2018	audited Aug 2020
Bolivia	No 0	Yes 211	No 0	Yes 14
Peru	No 9	Yes 314	Yes 499	Yes 630

Note. cv = compliance variable. No = 0, Yes = 1.

The 2016 *Testing Figures Report* showed that Bolivia had 211 TA tests during that year. After encountering this result, which was atypical in comparison with other years where they had no tests as TA, the 2016 TA lab and DCF reports for the country were downloaded to take a closer look at the data. From this data the following two issues, among others, were unveiled.

According to the DCF report, 31 tests were conducted by the Bolivian Olympic Committee (BOC). The BOC is Bolivia's signatory and, therefore, serves as the country's TA for all athletes, sports, and disciplines under its jurisdiction. Although it is unclear why they conducted testing in 2016 and not before or after, it is important to note that 2016 was a Summer Olympic year (Rio 2016). Therefore, it is possible that these tests were requested and conducted on behalf of International Federations, which in some sports were pushed by the IOC to expand their testing plans in preparation for the Games.

The lab report indicated that 186 tests in soccer were conducted. These tests were uploaded into ADAMS indicating the BOC was the testing authority when in fact it was the National Football Federation that planned, collected, and paid for the samples. In this case, the error may have originated when the Doping Control Officer filled the DCF during sample collection, writing the wrong testing authority on the form either deliberately or by mistake.

ADOs need to fix this and other similar errors in ADAMS regularly in order to have accurate and harmonized testing data. However, as long as this is not done, ADAMS will contain inaccuracies, and testing numbers will present a certain degree of uncertainty. This is evident in the case of Bolivia.

In the case of Peru, *WADA's Anti-Doping Testing Figures Report* for 2015–2017 indicated that Peru's testing program had increased its numbers every year: 9 in 2015, 314 in 2016, and 499 in 2017.

However, additional analysis of Peru's testing data for the years 2017–2018 revealed that about 50% of these tests belonged to the National Football Federation. That is, these tests were planned, collected, and paid by the federation, not NADO. For instance, in 2018 the Peruvian NADO conducted 630 tests: 435 of these tests were IC and 195 OOC. Out of the 630 tests, 353 were from football, 271 were IC and 82 were OOC. This leaves only 164 IC and 113 OOC tests for all other sports, a total of 277 (i.e., 44% of the NADO's testing program. Football takes the other 56%).

In order to clarify the extent of this issue, the matter was discussed with WADA's Latin America Regional Office Director. WADA's director explained that, historically speaking, anti-doping testing in football in Latin America had been conducted entirely by the national federations. However, she added that today, WADA is pushing the federations to work closely with the NADOs. That is why, even though the NADOs are not really conducting testing missions in football yet, they are at least serving as the testing authority in the country, becoming responsible for uploading football DCFs into ADAMS as well as handling Results Management cases and processing TUEs. WADA's director believed this is not an ideal scenario, but a move in the right direction.

WADA's Testing Grant. WADA's testing grant is part of WADA's RADO Program. The RADO Program was created by WADA in 2004 to assist countries with limited financial and human resources for anti-doping where no quality anti-doping programs had yet been established. Today, the RADO Program expands over 130 countries around the world (WADA, n.d.-h).

The testing grant is one of the RADO Program's most important components. Not only does the grant increase testing activity throughout the world, it also fosters testing sustainability by developing testing infrastructure and capacity.

Although countries in the RADO Program are not required to use the TG, they are strongly encouraged to take advantage of this grant if they do not conduct testing on their own. As previously explained, testing is a mandatory requirement of the Code and the ISTI and, therefore, must be implemented by all signatories in order to remain compliant. In this context, although not mandatory in itself, the TG can assist signatories with limited resources in meeting this compliance requirement by delegating their testing programs to the RADO.

This subcategory was formed by forecaster development variables. It focused on whether Peru and Bolivia have used the testing grant between 2015 and 2018. The documents reviewed for this subcategory were the following: *WADA's Anti-Doping Testing Figures Report* for 2015–2017, *WADA's Guide to Monitoring Testing*, ADAMS Laboratory reports for 2015–2018, ADAMS Doping Control Forms reports for 2015–2018, Testing grant reports for 2017–2018.

The data shown in Table 16 suggest that both countries have been using the testing grant in recent years. In Bolivia's case, TG activity started in 2017 with eight tests, and up until September 2018, five tests. Considering that Bolivia does not have a testing program, the TG becomes a useful tool for them to remain compliant with the Code and the ISTI. As a comparison, Peru conducted 16 TG tests in 2016, eight in 2017, and seven up until September 2018, adding to the country's overall anti-doping testing program.

Table 16*Bolivia's and Peru's Testing Grant Figures*

Country	Testing Delegation Agreement	2015	2016	2017	2018
	fv32	fv33	fv34	fv35	fv36
	audited Jan 2018	audited Sep 2018	audited Sep 2018	audited Sep 2018	audited Oct 2018
Bolivia	Yes	No	No	Yes 8	Yes 5
Peru	Yes	No	No 16	Yes 8	Yes 7

Note. fv = forecaster variable. Yes = 1, No = 0.

Anti-Doping Administration and Management System. In the context of the Code, a document that aims at harmonizing anti-doping practices in sport, WADA has the responsibility to develop policy and monitor anti-doping activity, ensuring ADOs are implementing effective anti-doping programs.

Under this precept, the Anti-Doping Administration and Management System (ADAMS) is an online, highly secured, database management system developed by WADA to assist and simplify anti-doping efforts for ADOs, allowing them to store, analyze, and effectively and efficiently share relevant anti-doping data (WADA, n.d.-a). Although ADAMS has many anti-doping functions, there are some that are mandatory. One example is that ADOs are required to upload accurate DCF data into the system within 15 days after sample collection. Another is that ADOs must upload all relevant TUE information into ADAMS in a timely manner.

However, not all ADOs are required to have an ADAMS account. Although this seems contradictory, ADOs are permitted to delegate their testing programs, and other anti-doping areas, to a third-party service provider, while maintaining their responsibilities as Code

signatories. As is the case with many RADO member countries, these delegated program areas include the administration of their ADAMS accounts.

Signing the ADAMS Agreement, however, is a mandatory requirement for all signatories. This holds signatories accountable for their anti-doping obligations under the Code, even when delegating part of their anti-doping programs to a third party, such as a RADO. For the purposes of illustration, if a RADO member country delegates their ADAMS administration to the RADO, as in the case of Bolivia, they still need to make sure the SAM RADO is managing all Bolivian anti-doping responsibilities within the system as stipulated by the Code (e.g., uploading testing grant DCFs in ADAMS within 15 days after sample collection, processing TUEs properly, etc.).

Both signatories in Peru and Bolivia have signed the ADAMS Agreement (see Table 17). The BOC does not have an up-to-date ADAMS account. They delegate this responsibility to the SAM RADO. Peru, on the other hand, has an established testing program and, thus, an active ADAMS account.

This category was divided into two subcategories: ADAMS Agreement (composed of one compliance variable; Yes = 1, No = 0) and ADAMS account (composed of one forecaster variable). The Program Development and NADO & RADO Relations Department files were reviewed for this subcategory.

Table 17*Bolivia's and Peru's ADAMS Agreement and ADAMS Account*

Country	ADAMS Agreement ^a	ADAMS account
	cv39	fv40
	audited	audited
	June 2018	June 2018
Bolivia	Yes	RADO
Peru	Yes	NADO

Note. ADAMS = Anti-Doping Administration and Management System; RADO = Regional Anti-Doping Organization; NADO = National Anti-Doping Organization. cv = compliance variable; fv = forecaster variable.

^a Yes = 1, No = 0

Anti-Doping Panels. In the event of an asserted anti-doping rule violation, analytical or nonanalytical, the ADO must have a Code-compliant Results Management (RM) system to guarantee a transparent legal process. Under the Code, legal processes require ADOs to have an independent disciplinary and appeals panels to handle anti-doping cases. Two instances are necessary because under Code Article 13.1, all “decisions made under the Code or rules adopted pursuant to the Code may be appealed.” (WADA, 2019c, p.80). Furthermore, some decisions may also be appealed to the Court of Arbitration of Sport, the highest sports court in the world (WADA, 2015).

In the same way, ADOs need to be prepared to process Therapeutic Use Exemptions (TUEs) effectively and efficiently. According to the International Standards for Therapeutic Use Exemptions (ISTUE), a TUE may be granted to an athlete for legitimate medical reasons. However, before a TUE is provided, the athlete must be able to fulfill the conditions established in the ISTUE. Ultimately, a TUE allows the presence of a prohibited substance (as determined in

WADA’s Prohibited List) or the administration, use, attempted use, or possession of a prohibited substance or prohibited method (WADA, 2019a).

ADOs must have a clear process published for athletes to apply for a TUE. In addition, ADOs must also establish a TUE panel, called a Therapeutic Use Exemptions Committee (TUEC) in the ISTUE, to analyze TUE applications under strict confidentiality requirements.

This category was divided into two subcategories: Panels/TUE and Panels/Disciplinary and appeals. Both subcategories were composed of compliance development variables (i.e., data for 2015–2018; Yes = 1, No = 0). The documents reviewed for both subcategories were the following: the 2015 Code, ISTUE, SAM RADO’s Board meeting minutes, including country reports for 2016–2018, and SAM RADO’s Delegation Forms for Peru and Bolivia from 2016 to 2018.

Table 18 shows that Bolivia has delegated its TUE panels to the SAM RADO since 2017. Prior to this, the signatory did not have a TUE panel. Peru has had a TUEC since 2016.

Table 18

Bolivia’s and Peru’s TUE Panel

Country	2015	2016	2017	2018
	cv41	cv42	cv43	cv44
	audited	audited	audited	audited
	Aug 2018	Aug 2018	Aug 2018	Aug 2018
Bolivia	No	No	RADO	RADO
Peru	No	NADO	NADO	NADO

Note. cv = compliance variable. No = 0, Yes = 1. TUE = Therapeutic Use Exemptions; NADO = National Anti-Doping Organization; RADO = Regional Anti-Doping Organization.

Along the same lines, Bolivia delegated RM, disciplinary and appeals panels to the SAM RADO in 2016 (see Table 19). Prior to this, they did not have panels. Peru has delegated part of

its RM processes; they have delegated the appeals process to the RADO but have kept first-instance disciplinary proceedings.

Table 19

Bolivia's and Peru's Results Management

Country	2015	2016	2017	2018
	cv43	cv44	cv45	cv46
	audited	audited	audited	audited
	Aug 2018	Aug 2018	Aug 2018	Aug 2018
Bolivia	No	No	RADO	RADO
Peru	No	NADO/RADO	NADO/RADO	NADO/RADO

Note. cv = compliance variable. No = 0, Yes = 1. NADO = National Anti-Doping Organization; RADO = Regional Anti-Doping Organization.

The data suggest that since both countries joined the SAM RADO in 2015 and although the programs are still in development, there has been a positive evolution toward compliance in both countries when it comes to panels, TUE, and RM. While being part of a RADO (and delegating anti-doping responsibilities to the RADO) can be seen as a sign of dependency, it can also be interpreted, when considering other factors, as an opportunity for capacity building and program development. Therefore, this data must be looked at in context and without making specific conclusions in isolation.

Financial Contributions to WADA. The creation of WADA in 1999 and the formalization of an anti-doping system have brought a unified approach toward tackling doping in sports. This joint approach was consolidated in 2005 when the governments of the world adopted the UNESCO International Convention Against Doping in Sport. By doing this, the governments of the world, for the first time, agreed to develop international anti-doping law.

States Parties have assumed certain anti-doping responsibilities outlined by the Convention. One of these responsibilities is to accept and implement the Code, helping with the formalization and harmonization of sports legislation, regulation, and policy across the world.

In this context, signatories, under the umbrella of the Code, must make annual contributions to WADA's budget, which is funded by governments (50%) and by the IOC (50%). Country contributions to WADA vary and are established based on a formula that primarily takes into consideration the countries' gross domestic product (GDP).

This category was composed of four forecaster development variables (Yes = 1, No = 0). The documents reviewed for this category were the *2017 Evaluation of the UNESCO Convention Against Doping in Sport* report and the Latin America Regional Office files on the status of WADA contributions for the region.

Although paying WADA's financial contributions is not a compliance issue, it may be considered an indicator of the level of importance that a signatory assigns to anti-doping within their sports system.

Table 20 shows that both Bolivia's and Peru's signatories are up to date with their contributions to WADA.

Table 20

Bolivia's and Peru's Financial Contributions to WADA

Country	2015	2016	2017	2018
	fv47	fv48	fv49	fv50
	audited	audited	audited	audited
	Sep 2018	Sep 2018	Sep 2018	Sep 2018
Bolivia	Yes USD 3,188	Yes USD 3,284	Yes USD 3,448	Yes USD 3,724
Peru	Yes USD 16,206	Yes USD 20,853	Yes USD 21,885	Yes USD 25,028

Note. fv = forecaster variable. Yes = 1, No = 0. WADA = World Anti-Doping Agency.

This section addressed anti-doping program implementation and determined whether these programs were being implemented in line with the Code and the International Standards, and to what extent. This section aided this research determine whether the NADOs in Peru and Bolivia are making the transition from documentary to applied compliance (i.e., from theory to practice). Next, key preliminary takeaways from this section are presented.

There is a significant difference in the implementation of anti-doping programs between the two countries. The Peruvian NADO obtained 38 points (65.5%) in this part of the assessment, while the Bolivian NADO obtained 14 points (24.1%; see Table 21).

Further, the Bolivian NADO did not have sufficient human or financial resources between 2015 and 2018 for anti-doping, limiting its capacity to implement programs and remain Code-compliant. Although there are international grants available for anti-doping programs (i.e., UNESCO Fund), Bolivia did not submit an application during the 4-year period 2015–2018. This, considering their limited national resources, suggests a lack of interest in anti-doping.

The financial and human resources data in Tables 10 and 11 illustrate a change in Peru's NADO support between 2015 and 2016. The signatory went from having no budget and human resources in 2015 to over USD 120,000 per year for anti-doping and four staff by 2018. This is a finding that will be further discussed when unveiling the factors that affect compliance. It is important to understand events that unfolded in Peru during this period that helped develop the NADO.

Peru's and Bolivia's NADOs do not have strategic plans. This limits their capacity to plan long term and grow in a sustainable way.

In addition, the Bolivian NADO delegates all its anti-doping obligations under the Code to the SAM RADO. Thus, the SAM RADO plays a significant role in supporting the

implementation of anti-doping programs in Bolivia, which would probably be noncompliant if delegation of anti-doping programs were not possible.

Other than some unstructured anti-doping activities, the Bolivian NADO has not implemented an education program in line with WADA's Education Guidelines. Peru, however, has supported an education program since 2017.

With regards to testing activity, Bolivia has not conducted testing as part of the NADO's testing program since 2016. However, the NADO used WADA's testing grant in 2017 and 2018 through the SAM RADO. Peru has had a NADO testing program since 2016.

A significant number of tests in both Peru and Bolivia were conducted and funded by the National Football Federation, which has the capacity to implement independently from the countries' NADOs due to its large resources.

Table 21 shows the overall results of the applied compliance assessment for the NADOs in Peru and Bolivia. Given the number and types of variables in this section, the maximum number of points that could have been accumulated in the applied compliance assessment was 58.

The values obtained for Peru and Bolivia in Table 21 present a comprehensive view of the countries' compliance status from a program implementation perspective, reflecting both compliance and compliance forecasting factors. This section confirms what was first presented in the Documentary Compliance Assessment of the NADOs in Peru and Bolivia section, where it was identified that, from a paperwork perspective, there was a difference in compliance between the NADOs in Peru and Bolivia (see Table 9). Therefore, the analysis in the Applied Compliance Assessment of the NADOs in Peru and Bolivia section confirms there is also a significant difference in the implementation of anti-doping programs between the two countries.

Table 21*Applied Compliance Scores for the NADOs in Peru and Bolivia*

Variables	Scores	
	Peru	Bolivia
fv8: Financial resources 2015	0	0
fv9: Financial resources 2016	1	0
fv10: Financial resources 2017	1	0
fv11: Financial resources 2018	1	0
fv12: Human resources 2015	0	0
fv13: Human resources 2016	1	0
fv14: Human resources 2017	1	0
fv15: Human resources 2018	1	0
fv16: UNESCO funded project 2015	0	0
fv17: UNESCO funded project 2016	0	0
fv18: UNESCO funded project 2017	1	0
cv19: Education plan 2015	0	0
cv20: Education plan 2016	0	0
cv21: Education plan 2017	1	0
cv22: Education plan 2018	1	0
fv23: Strategic plan	0	0
fv24: Annual operational plan 2015	0	0
fv25: Annual operational plan 2016	1	0
fv26: Annual operational plan 2017	2	0
fv27: Annual operational plan 2018	2	1
cv28: Testing as TA 2015	0	0
cv29: Testing as TA 2016	1	1
cv30: Testing as TA 2017	1	0
cv31: Testing as TA 2018	1	0
fv32: Testing Delegation Agreement	1	1
fv33: Testing/Testing grant 2015	0	0
fv34: Testing/Testing grant 2016	0	0
fv35: Testing/Testing grant 2017	1	1

Note. fv = forecaster variable; cv = compliance variable. UNESCO = United Nations Educational, Scientific and Cultural Organization; TA = Testing Authority.

Table 21 (continued)*Applied Compliance Scores for the NADOs in Peru and Bolivia*

Variables	Scores	
	Peru	Bolivia
fv36: Testing/Testing grant 2018	1	1
cv37: ADAMS Agreement	1	1
fv38: ADAMS account	1	0
cv39: Panels TUE 2015	0	0
cv40: Panels TUE 2016	2	0
cv41: Panels TUE 2017	2	1
cv42: Panels TUE 2018	2	1
cv43: Panels Disciplinary/Appeals 2015	0	0
cv44: Panels Disciplinary/Appeals 2016	2	0
cv45: Panels Disciplinary/Appeals 2017	2	1
cv46: Panels Disciplinary/Appeals 2018	2	1
fv47: Contributions to WADA 2015	1	1
fv48: Contributions to WADA 2016	1	1
fv49: Contributions to WADA 2017	1	1
fv50: Contributions to WADA 2018	1	1
Total ^a	38	14
Assessment (%)	65.50%	24.10%

Note. fv = forecaster variable; cv = compliance variable. ADAMS = Anti-Doping Administration and Management System; TUE = Therapeutic Use Exemption; WADA = World Anti-Doping Agency.

^a Number of maximum points = 58.

Takeaways: Overall Compliance Assessment

Although at this stage the factors that directly affect compliance of Peru's and Bolivia's NADOs have yet to be discovered, the results obtained during this assessment provide a thorough view of the gaps, challenges, strengths, and weaknesses of the countries' anti-doping programs. The key takeaways for the first part of this chapter are the following.

Table 22 shows a noteworthy difference in anti-doping development and compliance in Peru and Bolivia across the two levels of assessment conducted. Although it is early to understand the full extent of these results and what is causing them, there is sufficient evidence

across the two areas examined that Peru's anti-doping program has started to develop, while Bolivia's has not.

Table 22

Peru's and Bolivia's Compliance Assessment Grand Total

Country	Documentary compliance ^a		Applied compliance ^b		Total % assessment ^c
	Score	%	Score	%	
Peru	6	85.71	38	65.50	75.61%
Bolivia	3	42.85	14	24.10	33.47%

^a Number of maximum points = 7. ^b Number of maximum points = 58. ^c Documentary and applied compliance were each treated as independent and, thus, weight the same (50%). This was done to ensure that both dimensions influenced the results equally.

The Documentary Compliance analysis revealed that Bolivia has not established a NADO. Although Bolivia has ratified the UNESCO Convention, accepted the Code, and in September 2018 adopted NOC anti-doping rules, the country still needs to work toward developing an independent, fully established NADO. Currently, the BOC acts as the NADO by default. The Code determines that if a country does not have a NADO, the NOC shall assume this obligation. This may indicate limited interest for anti-doping in the country.

In line with the lack of NADO development, Table 8 shows that Bolivia depends on the SAM RADO for most of its anti-doping activity, including but not limited to testing, ADAMS administration, education, Results Management, and Therapeutic Use Exemptions. In this context, the SAM RADO plays an important role in supporting the implementation of anti-doping programs in both countries, particularly in the case of Bolivia. Further, the SAM RADO helps both NADOs with continuous capacity building.

In terms of resources for anti-doping, the Bolivian NADO did not have sufficient financial or human resources between 2015 and 2018 (see Table 10), limiting its capacity to implement anti-doping programs. Although there are international grants available for anti-doping programs (i.e., UNESCO Fund), Bolivia did not submit an application during the 4-year period 2015–2018. Considering the limited national resources, this may be evidence of lack of interest for anti-doping.

The financial and human resources data in Tables 10 and 11 illustrate a change in Peru's NADO support between 2015 and 2016. The signatory went from having no budget and human resources in 2015 to over USD 120,000 per year for anti-doping and four staff by 2018.

In addition to having limited resources for anti-doping, Peru's and Bolivia's NADOs do not have strategic plans. This limits their capacity to plan long term and grow in a sustainable way.

With regard to anti-doping education, the Bolivian NADO did not implement an education program in line with WADA's Education Guidelines during the period under assessment (2015–2018). The Peru NADO, however, has had an education program since 2017.

As it relates to testing activity, the Bolivian NADO has not conducted testing as part of the NADO's testing program since 2016. They used, however, WADA's testing grant in 2017 and 2018 through the SAM RADO. On the other hand, Peru has had a NADO testing program since 2016.

With this information, the interview questionnaire was developed for the next stage of the research process, which focused on unveiling the factors that affect compliance.

Factors That Affect Compliance of Peru's and Bolivia's NADOs

This second part of Chapter 4 identifies the factors that affect compliance of Peru's and Bolivia's NADOs, which is the core of this dissertation. To do this, 10 semistructured, open-ended interviews with anti-doping experts from both countries were conducted. As mentioned in Chapter 3, in order to keep the data as balanced as possible, five subjects from each country were interviewed. All 10 subjects had either technical or political anti-doping expertise. Different types of participants were interviewed to enhance credibility by means of triangulation. Furthermore, subject selection was conducted in coordination with WADA's Latin America Office to ensure know-how. Data analysis, including coding and theme analysis, was conducted with the help of Excel and Dedoose, a cross-platform application for analyzing qualitative and mixed methods research with text, photos, audio, videos, spreadsheet data, and so forth. This part of the chapter includes all of the data in this study, including what was learned from the compliance assessment shown in Part 1. In Chapter 5, the practical implications of the key findings will be discussed through the lenses of some of the most relevant theories outlined in the study's conceptual framework.

The factors that affect the compliance status of Peru's and Bolivia's NADOs were divided into "Parent Codes" and "Children Codes" (i.e., themes and categories hereafter). The study's six themes emerged by developing a dynamic coding scheme in the Dedoose platform, which allowed for an initial large set of codes (i.e., individual units of meaning) to be converted into themes and categories. This process was done by intuitively merging, splitting, transforming, eliminating, and grouping codes. As the interview transcripts were being sifted through, the data began to speak with its own voice; codes became categories and groups of categories became factors.

The themes of the study, described in detail in the section that follows, are presented in order of relevance. The relevance of all themes and categories were established qualitatively (i.e., by theme analysis and through the voices of the interviewees) and quantitatively (i.e., by means of frequency or counting the number of transcript excerpts linked to them).

The quantitative aspect was not viewed as a simple mathematical exercise. On the contrary, it was used to further extract valuable information in a way that was relevant to this research, through qualitative means, from the topics that the interviewees had brought up the most during the discussions. This helped identify the main findings and, therefore, the factors that affect the development and compliance of the NADOs in Peru and Bolivia.

Although the intention was not to test for causality, it is fair to say that in the view of the participants, certain factors affect compliance more than others. Therefore, these factors should be taken into consideration when developing compliance strategies.

Themes and Categories Extracted From the Interviews

As previously explained, the level of relevance of a theme was in part determined by means of quantitative assessment. Using Dedoose's quantitative features, the most significant themes were identified by counting the number of excerpts associated with them. For example, the themes *inadequate legislation and resources* and *lack of understanding* had 97 and 83 excerpts, respectively, that were associated with them.

Dedoose was used to create an organic coding scheme: a coding system that constantly evolved as the interview transcripts were analyzed and reanalyzed. In this process, excerpts from the transcripts were assigned to the codes that had already been created. However, as codes evolved and the categories and themes were created, the data from Dedoose were exported into Excel for further clean-up and analysis.

Based on the data derived from the interviews, the review of the literature, and the conceptual framework, categories formed a factor by natural fit, degree of similarity, dependency, or association. This process was conducted intuitively. For example, the category *limited political support* fell under the theme *lack of support and political instability*; the categories *sanctions on signatories opportunity for development* and *anti-doping rule violations opportunity for development* fell under the theme *sanctions may actually help*.

Therefore, the six themes identified in the study were

- inadequate legislation and resources;
- lack of understanding;
- lack of support and political instability;
- poor relations between Sport, governments, and WADA;
- cultural views affect compliance; and
- sanctions may actually help.

Each one of the themes and categories, individually and in interaction with others, plays an important role in the limited compliance of Peru's and Bolivia's anti-doping programs, as was demonstrated during the compliance assessment presented in the first part of this chapter.

In addition, in order to corroborate the reliability of the coding structure, the distribution of the six themes across participants was analyzed. This helped determine whether the factors of the study had been generated based on the voices of only a few of the interviewees or were in fact represented throughout the sample (see Table 23).

Table 23*Frequency of the Study's Themes Across Participants*

Subject	Inadequate legislation & resources	Lacking understanding	Lack of support & political instability	Poor relations between sports, governments, & WADA	Cultural views affect compliance	Sanctions may actually help
Subject 1	16	17	18	6	3	4
Subject 2	5	11	8	2	1	0
Subject 3	12	5	2	0	3	3
Subject 4	20	12	0	2	1	1
Subject 5	3	13	9	3	1	2
Subject 6	14	7	6	2	5	0
Subject 7	9	2	3	3	1	3
Subject 8	6	6	7	3	5	2
Subject 9	4	6	3	2	1	2
Subject 10	8	4	0	0	1	0
Total	97	83	56	23	22	17

Note. WADA = World Anti-Doping Agency.

The information presented in Table 23 confirms that the study themes were distributed across all participants. This was a good indicator of coding structure validity and reliability.

Themes and Category Relations: Findings of the Study

Figure 10 shows a map of relations across themes and categories. At the center within a circle is the research problem (i.e., Peru's and Bolivia's anti-doping programs' limited Code compliance) surrounded by the six themes in light gray squares. Each theme was formed by categories that were assigned three different colors based on their degree of influence on the themes: black (high), dark gray (medium), and white (low). As previously explained, the degree of relevance or influence was determined through qualitative (i.e., theme analysis from the interviews) and quantitative (i.e., by frequency, counting the number of transcript excerpts linked to it) means. The quantitative component was assessed by using the following range:

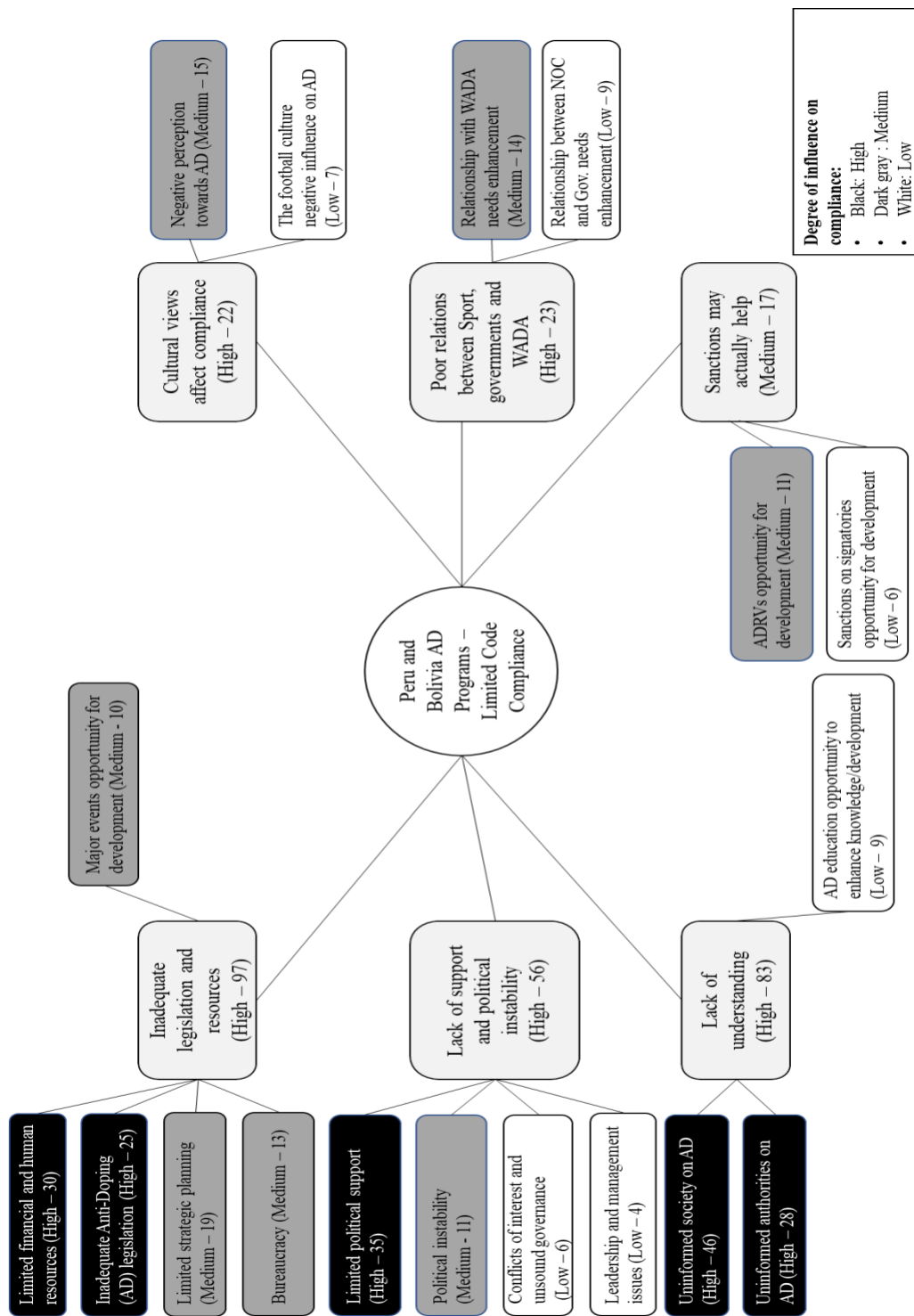
- a. low influence (white): 1–9 excerpts

- b. medium influence (dark gray): 10–19 excerpts
- c. high influence (black): 20 or more excerpts

The six themes that were identified are relevant to the research because, from the interviewees' perspectives, they directly affect the NADOs' capacity to implement Code-compliant anti-doping programs. Furthermore, the themes and categories of the study do not affect compliance in isolation. The data studied suggest that they exist in a state of interaction and interdependence due to a series of historic, social, economic, political, and cultural considerations. Therefore, from the relationships among these themes and categories (derived from the coding process and analysis of the data), six key findings of this study were developed. The following sections present a detailed analysis of each of the six findings.

Figure 10

Theme and Category Relations and Their Impact on Compliance: A View of the Findings



Note. AD = Anti-Doping; ADRVs = Anti-Doping Rule Violations; WADA = World Anti-Doping Agency; NOC = National Olympic Committee.

Table 24 shows the number of excerpts associated with each one of the six findings of the study. The order in which the findings are analyzed is based on this table, beginning with the most relevant as indicated by the subjects.

Table 24

Frequency of Excerpts in the Six Findings of the Study

Findings	No. of excerpts
F1: Inadequate legislation and resources	97
F2: Lack of understanding	83
F3: Lack of support and political instability	56
F4: Poor relations between the Sports Movement, governments, and WADA	23
F5: Cultural views affect compliance	22
F6: Sanctions may actually help	17
Total	298

Note. WADA = World Anti-Doping Agency.

What Is Affecting Compliance of Peru's and Bolivia's NADOs?: Six Key Findings

Finding 1: Inadequate Anti-Doping Legislation and Limited Resources Hinder Program Implementation. Peru and Bolivia lack proper anti-doping legislation. This makes it very difficult for NADOs to access government funds. Thus, NADOs have either no financial resources (Bolivia) or limited financial resources (Peru). Having no budget directly impacts the NADOs' capacity to implement Code-compliant anti-doping programs. This was confirmed in the Applied Compliance Assessment section, where Peru and Bolivia achieved 65.5% and 24.1% compliance, respectively. Subject 7 said, "I mean, any institution or department within an organization of the government needs a budget to implement the activities under its responsibility. Moreover, if these activities are dictated by regulation [the Code] that is not national but international."

Resources are needed to implement compliant anti-doping programs. Subject 4 referred to the situation of Peru's NADO before 2015, the year when the sports minister decided to allocate some resources to anti-doping. Subject 4 explained:

There wasn't a budget item in the IPD⁴ for this [anti-doping]. Its activities were not incorporated within the operational documents and plans within the organization. For example, the IPD's strategic and annual operational plans did not contemplate a budget for the NADO. Therefore, the IPD could not assign resources to the NADO to implement anti-doping programs.

Although Peru's anti-doping program has grown since 2015, this growth is fragile because it does not have adequate anti-doping legislation in place to make it sustainable.

Legislation is needed to ensure government resources are received consistently (i.e., on an annual basis). Subject 3 stated:

In reality, it would have been ideal if the CONAD, the National Anti-Doping Commission, had been formed in an autonomous way, by law, both from a budget and operational perspective. But, as you know, the context is complicated. Changing the budget law in a country is difficult.

Subject 3 believed that not having an appropriate legal framework for anti-doping means the Peruvian NADO could be dismantled at any time. This could happen if (new) sports authorities do not see anti-doping and the NADO as a priority and, therefore, decide to allocate the resources somewhere else.

Bolivia, on the other hand, does not have resources for anti-doping whatsoever. Subject 8 declared that "the budget [in Bolivia] is a continuous challenge. To date, there isn't sufficient budget to maintain anti-doping." If you add to this the power struggles between the NOC and the government, and the limited resources, Subject 8 added, "It seems to be very difficult to implement anti-doping activity in the country."

⁴ Instituto Peruano del Deporte [Peruvian Sports Institute]. Government organization in charge of sports development in the country. Equivalent to a Ministry of Sports, the IPD is under the authority of the Ministry of Education.

Interviewees strongly believed that to have sufficient resources to implement effective anti-doping programs, it is necessary to have proper anti-doping legislation in place; to achieve this, political support is needed. With regard to political support, Subject 3 thought that “it is necessary to start doing work with the Ministry of Economy and Finance authorities to make them understand the importance of anti-doping in the world and the importance of being able to function autonomously.” To this, Subject 4 added, “In Peru, the next step is to review the sports legislation to ensure government organizations are more autonomous in their operations.”

To further elaborate on the ramifications of legislation, participants suggested that having an adequate anti-doping law would enhance NADO independence from the government and guarantee a sustainable approach to run anti-doping operations. Subject 1 said:

We must go to the origin of the NADO [in Peru], and that is the law. The law that creates the NADO is within the sports law. Its origin [the NADO’s] is not the most suitable for any institution because it tethers you to the bigger organization [to IPD]; for example, the president of the NADO has to be nominated by the IPD, and that generates a conflict of interest.

This makes the NADO dependent on the sports ministry and the relevant authorities to run anti-doping programs.

As previously mentioned, Subject 3 believed that changing legislation in a country is very difficult. There must be political will to effect change, and anti-doping does not seem to be a priority in politicians’ agendas. Although challenging, Subject 4 expressed that enacting adequate legislation is the path forward to achieving organizational autonomy, which in turn has the potential to improve the overall functioning of the sports system in the country. He thought this would also ensure institutional sustainability when new authorities, who often bring with them their own political agendas, are appointed.

In addition, there was a generalized view across participants from both countries that governments in Peru and Bolivia do not operate under a strategy that includes a shared long-term vision for sports and anti-doping development. The applied compliance assessment confirmed that neither NADO had a strategic plan in place, limiting their capacity to grow in a sustainable way. On the contrary, work is spent, most of the time, “stopping fires” (Subject 1). That is, they are facing problems as they come, without any strategy or long-term plan. In relation to the state of the NADO when he first joined the organization in 2015, Subject 1 explained:

There was no planning, and I think that is one of the main problems we have in the region. There is no real planning, we don't think long-term, because authorities do not have a long-term vision. Since I have been in sports, we have never planned beyond an Olympic cycle. In fact, we never plan beyond 1 year, and I think that's one of the biggest weaknesses in the country and the region.

Confirming this view, Subject 10 stated, “Nothing is planned for the medium to long term.”

Furthermore, in response to the question “How do you see the NADO 5 years from now?,”

Subject 5 responded, “In 5 years, in 5 years . . . The truth is, I don't know. I have never thought about that.”

This situation is further complicated because both sports ministries in Peru and Bolivia are large, complex, and highly bureaucratic government institutions. Each department or office within the ministry has specific responsibilities related to sports development (i.e., elite sports, recreation, sports science and medicine, etc.). These responsibilities are more or less described in the organizations' operational and financial plans and have their own human and financial resources assigned, which in most cases are limited.

However, since anti-doping is a relatively new responsibility to the ministries, it has not been properly incorporated into governmental structures and, therefore, the organizations' plans. Peru and Bolivia have only been signatories to the Code for about a decade. As previously stated,

they still have no official (i.e., by legislation) resources for anti-doping. Therefore, requesting and receiving government resources for anti-doping requires overcoming many bureaucratic impasses, both legal and administrative. Regarding the difficulties in implementing anti-doping programs in this context, Subject 1 said it is challenging executing activities when the plan you developed in January for the year cannot be implemented because no one at the ministry wants to sign a purchase request. As previously explained, NADOs in Peru and Bolivia do not have adequate anti-doping legislation. Therefore, they depend on other government departments, and heads of departments, for funding. This constrains NADO operations. Subject 1 declared:

Administratively speaking, you depend on the signature of the NADO president, who is a government official that runs another department within the ministry or has been nominated by the ministry. This does not give you autonomy, and you often find yourself with administrative problems that have no solution.

Adding to this problem, and speaking of bureaucracy in the country, Subject 3 stated, “Without mentioning other countries, as we need to speak about our reality, [government] processes, including contracting processes, are cumbersome, complicated, and not easy.” This does not allow the NADOs to operate independently, as is required by the Code, and develop plans for the long term.

Although bureaucracy and the lack of strategy seem to limit the implementation of anti-doping programs in both countries, some of the interviewees believed that the hosting of major events, such as the Olympic Games, the Continental Games, or the Regional Games, may be a good opportunity to push program development in different areas of sport (e.g., anti-doping) in the country hosting the event. However, there is not enough evidence in this research to support this.

Interviewees suggested that hosting a major event, such as the Olympics or the Pan-American Games, which requires the spending of millions of dollars of taxpayer money, is

conditioned with having political support. Participants suggested that when there is political support, it is easier to get things accomplished, even if that means changing the law. According to some of the interviewees from both countries, having the South American Games in Cochabamba (2018) and the Pan-American Games in Lima (2019) yielded the positive result of boosting anti-doping activity. The games provided an overall increase in budget, training of personnel, purchasing of equipment, and so forth. Subject 3 said, “Having the Pan-American Games has sparked more interest [in anti-doping].” According to Subject 4, the Pan-American Games in Lima allowed the sports system to become stronger and more modern. Subject 4 added that “anti-doping, which had almost no activity in the past, is growing every year, having its own space and a protagonist role in the country’s sports system.” Although this seems positive, in order to assess the real effects of hosting major events on sustainable development, it would be necessary to gather and analyze long-term NADO data pre- and post-games and evaluate impact.

Finding 2: Uninformed Authorities Make NADO Development and Program Implementation Challenging. The consolidation of the NADOs in Peru and Bolivia, and therefore the implementation of anti-doping programs, is affected by the limited knowledge people possess about anti-doping. Interviewees suggested that there is little knowledge on anti-doping within society at large and among those managing both government and private sports organizations. Although some of the participants also believed this problem could be prevented through anti-doping education, all see lack of knowledge as a current threat to the implementation of anti-doping programs in their countries.

With regard to the possible benefits of anti-doping education, Subject 1 said, “[education] helps prevent doping. We should educate first, then test.” Both Subject 1 and Subject 6 agreed that the world of sports, or “the universe of sports” as Subject 6 called it, is very big, and

education is a great tool to reach it. Subject 6 suggested that other parts of anti-doping (e.g., testing, results management, investigations, etc.), although necessary, are harder to implement because of limited available human and financial resources. Therefore, participants thought anti-doping education offers an effective, low-cost method to battle doping. Moreover, Subject 1 believed “anti-doping must become a social need, as it affects public health.” He continued to say that in order to achieve this “we need them [society] to see the work we do. We must work closely with the Ministry of Education and go down to schools [to educate children].” However, he also believed more political support is needed to achieve this.

Interviewees emphasized that athlete support personnel (ASP), including some sports authorities, perceives anti-doping as an enemy to sport rather than an ally. Subject 2 described the reaction of the president of a national federation when he was notified that one of his athletes had received an adverse analytical finding (AAF), also known as a positive test: The president said, “I am going to appeal; I am going to teach WADA. They can’t punish my athletes.”

While the purpose of anti-doping, paraphrasing WADA’s vision, is to maintain sport clean and fair for all, why is there a discrepancy between some of the views ASP has and the purpose of the anti-doping system (i.e., to have a level playing field for all athletes)? Based on the subjects’ comments, the reason may be attributed to poor and ineffective communication, awareness, and education strategies. Subject 2 believed:

nothing is done to combat this [lack of knowledge]. They say, ‘be careful, anti-doping is random, you are going to be selected.’ Thus, [anti-doping] is taboo for them . . . but absolutely nothing is done with the athletes. They are not even taught what medications can give them a positive result.

Furthermore, interviewees highlighted that authorities, both from the government and NOC, are particularly uninformed about anti-doping, making program implementation quite challenging. Subject 1 claimed, “Those who have to manage anti-doping, as part of the sports development

system, I have noticed, have very little experience and knowledge on the matter. They even have a subconscious animosity towards anti-doping.” Adding to this, Subject 2 stated, “The majority of presidents of national federations, I dare to say perhaps 90% of them, same as I did back then, did not know what anti-doping was.”

Subject 8 suggested that because authorities are not properly informed on anti-doping matters, they do not know what type of work needs to be done. This, in Subject 8’s opinion, can bring unwanted consequences. For instance, he explained:

Many times, as a government official, your superiors give you assignments, such as working at a sporting event in a role that you know you should not have as the country’s anti-doping representative. However, there is nothing you can do because your superiors, the vice minister or even the minister, force you to do it. You know this is against the norms and the Code, but you have no choice.

Interviewees found it very difficult to implement anti-doping programs when authorities ask them to do other activities instead. This is an indicator of NADOs’ lack of operational independence. With regard to this, NADOs must have operational independence as per Code Article 20.5.1 (WADA, 2015). In reality, this does not seem to be happening for smaller NADOs, like the ones in Peru and Bolivia, where government resources are limited and, therefore, sports and anti-doping are managed under the same institutional framework.

Participants suggested that authorities misunderstand the roles and responsibilities associated with anti-doping. Moreover, they believed, authorities blame others (i.e., NOC, government, and even WADA) for the limited anti-doping activity in their countries. Subject 8 said, “And when there is a need, [the NOC] goes to the Ministry. And then the Minister says, ‘but that is your responsibility.’ After that everyone is lost, and there are fights and opposing points of view.” This shows an evident lack of understanding of anti-doping responsibilities by both Code signatories and other relevant stakeholders.

In the opinion of Subject 6, this is further complicated because there is high turnover of government officials. Subject 6 admitted, “Explaining to them that we have an obligation . . . explaining it all again to each person starting so that they can help us with resources to contract services is what I find the most difficult about working at the NADO.” In addition, the NADOs in Peru and Bolivia do not have adequate legal status. Therefore, the NADOs do not have government resources assigned to run anti-doping programs. Resources are only received on an irregular basis.

Finding 3: Political Instability and Lack of Support Negatively Impacts Anti-Doping Efforts. Interviewees believed that political support is critical for compliance and overall anti-doping development. However, they said political support for anti-doping is very limited (Peru) or nonexistent (Bolivia). In the case of Bolivia, the compliance assessment revealed that (a) anti-doping responsibilities still depend on the NOC (i.e., the NOC acts as the NADO because the government has not established a NADO yet), (b) anti-doping does not currently have government resources assigned, and (c) the NOC has delegated all anti-doping responsibilities to the SAM RADO. These are indicators that anti-doping is not a priority in the agendas of sports authorities. Although Peru finds itself in a slightly better situation (i.e., more resources and overall NADO support), interviewees did not seem to be content with the current political support for anti-doping.

With regard to the limited political support for anti-doping in Peru, Subject 1 said, referring to the way authorities think, “I signed it because I have to sign it [referring to becoming a Code signatory]. Because I have it in the law, however, I never execute it because I have [other] priorities.” Subject 1 believed the problem is rooted in priorities and the generalized lack of information on anti-doping.

Subject 1 added that sports authorities usually have many roles and responsibilities within the government and sports movement at the same time (e.g., ministers, vice ministers, and department heads acting as presidents of different committees, panels, interest groups, etc.). This, he thought, has the potential to generate conflicts of interest and push authorities to make decisions based on political agendas dictated by specific interests, such as money and power. This limits their time and capacity to do the job.

As was previously explained, Peru's and Bolivia's NADOs need political support to be able to enhance their current anti-doping legislation. This would ensure the government provides the organizations with sufficient resources to operate in compliance with the Code. However, because political support for anti-doping is limited, their chances to have adequate anti-doping legislation and Code-compliant anti-doping programs are slim. To generate substantial change, Subject 7 thought:

[There is a need for] the IPD and the State to work long term with athletes, not thinking on these Games [the 2019 Pan-American Games in Lima], but beyond, for 2024 and 2020, leaving a solid structure and organism [legal mechanisms] to support all the different actors.

Talking about Peru's anti-doping growth, Subject 1 stated, "After 2015, objectives were met because the NADO had the support from the sports minister." Subject 1 believed that was a defining moment for anti-doping development in the country. In 2015, Peru had two important doping cases. The relevance of these cases, which resulted in Peru losing two medals at the Pan-American Games in Toronto, caught the attention of the IPD president, who decided to start supporting the work of the NADO. Subject 1 added, "I feel that without the support of the president of the IPD [sports ministry], we wouldn't be talking now of the growth Peru has had."

Although this is the sentiment from most participants (i.e., with political support there is development), most of the information provided by the interviewees suggested that there is little

or no political interest for anti-doping from authorities in Peru and Bolivia. Subject 8 referred to the challenges he faced when trying to implement anti-doping programs:

Things got complicated because when you tried to implement something, authorities would tell you, ‘That is not contemplated in our budget, it is not contemplated in our priorities in the Ministry; thus, leave it and start working on something else.’

Along the same vein, Subject 6 felt that anti-doping did not seem present in the agendas of authorities and politicians. She said that since she started working in anti-doping, the NADO staff have been trying without success to garner political support to change the sports law to better define the role of the NADO within the governmental structure. In her opinion, this role is not well defined and could bring problems to the organization in the future. Subject 6 further revealed, “Nobody at the political level [at the sports ministry, education ministry, and Congress] has wanted to listen to us. I don’t see any . . . zero, zero, zero interest.”

Furthermore, interviewees suggested political instability in Latin America has a negative impact on the development of NADOs and the implementation of anti-doping programs. They said this instability causes high turnover of sports leadership and government officials, which stalls projects and daily operations. Although both countries are politically unstable, the data analyzed unveils a different situation in Peru and Bolivia.

Peru has had multiple changes in government and sports authorities between 2005 and 2019. The country has had five presidents during this period. In spite of this, the Peruvian economy has remained somewhat stable during the last two decades, with a steady GDP growth average of 4.7% (CEIC, 2018). However, the many changes in government leadership has also brought constant changes to IPD management. In the interviewees’ opinion, this situation has slowed the development of the sports system and anti-doping. As previously explained, although

anti-doping in Peru started growing in 2015, participants suggested it has yet to consolidate; political instability in the country does not help.

In the opinion of Subject 1, “Political and mediatic matters, or mistakes committed by the president of the IPD, the Minister makes the decision to fire him from the institution. For these types of reasons, we have had many IPD presidents lately.” Subject 1 was referring to the Minister of Education whom in the Peruvian government structure is the immediate authority of the IPD’s president. Subject 1 believed that this affects the work of the NADO negatively. With regard to the problems the NADO has faced every time there is a change in the IPD leadership, Subject 6 claimed:

Yes, sure, but I would have to explain it all again to the new boss every time there is a change. I would have to explain the nature of our activities again and again. For instance, this year, they have changed the IPD president three times; also, we have a new NADO president. Further, those responsible for the IPD’s administration have also been replaced. Since January of 2019 almost everyone I knew at the IPD is now gone. It is difficult like this.

On the other hand, Bolivia’s governmental leadership, including that of sport, has remained in power for over a decade. Evo Morales has been the country’s president since 2006⁵. Bolivia has had only one president, while Peru has had five during the same time period. However, the economy in Bolivia has been slower, with a 2.2% average growth of the GDP, which is consistent with the average in Latin America. The problem in Bolivia is not the high rotation of political authorities at the highest level. The problem seems to be, at least within the national sports system, at the operational level. For example, according to WADA’s records, Bolivia has had four different NADO representatives in the past 4 years. This is an issue for anti-

⁵ Evo Morales resigned to Bolivia’s presidency in November 2019. A transitory government has been put in place until elections in the first quarter of 2020.

doping development because while staff is being replaced and trained all over again, anti-doping programs are halted. With regard to this issue, Subject 5 explained:

WADA needs to find ways to ensure the staff that is trained remains over time. Because, I have said this before, in the case of Bolivia first came this person, and he knew about anti-doping quite a bit and then he left. Later came this other person; he didn't know about anti-doping when he started but then he learned, he received training, and travelled to seminars—and suddenly left. Then I came in and we started all again, and what happens if I leave tomorrow? Another person will come, and we start from zero, again.

Subject 5 believed mechanisms should be put in place to ensure there is proper transfer of knowledge every time there is a change in government officials.

Finding 4: Governments, the Sports Movement and WADA Struggle Over Control of Anti-Doping. The anti-doping system is a collective multinational endeavor that exists because States Parties have agreed they would recognize it both internally, within their national jurisdictions with Code-compliant legislation and national anti-doping rules, and externally, as a universal and standardized approach to combat doping in sports (UNESCO International Convention Against Doping in Sport, 2005). This, and the subsequent creation of WADA, according to Hughes (2015), “provides consistency of anti-doping policies across sports and across international boundaries” (p. 167). However, the success, or lack thereof, of international laws such as the World Anti-doping Code, depends on good relationships, mutual respect, and continuous cooperation among stakeholders.

Interviewees suggested there is a need to establish better communication lines with WADA, as they viewed the world regulator as an important source for overall NADO development, particularly when it comes to capacity building, technical support, and financial resources. This is especially important for Subject 10 who said, “These are organizations [WADA and SAM RADO] with experience in the field; we have to work with them to improve our interventions in sport. It is useful to us.” Referring to intervention and program

implementation, the ongoing support NADO receives in terms of capacity building from WADA has helped them grow at the international level (Subject 6). Subject 6 added that, thanks to the support received, they feel more and more confident, especially in results management and testing.

However, participants also suggested there is a disconnect between WADA regulation and the realities of many signatories. This uncoupling arises because, from their viewpoint, WADA caters to the needs and cultures of the developed world, which they consider very different to theirs. On this topic, Subject 1 stated:

I think the problem comes from above. Those who manage anti-doping in the world have a different vision . . . The development of their sport and health systems, amongst others, make it easier for a European or North American to understand anti-doping, because they have a sports system that is more developed than the ones we have in our region.

The idea of dissociation between WADA and the smaller country signatories is also explained by Subject 7 who said the Code was too harsh:

it [the Code] does not discriminate between whether or not an athlete knew about the norms or is poor, or lives in a rural area and has no access to the internet, or education, or doctors to provide them with advice.

Subject 7 was referring to those athletes who get caught doping by using a substance they did not know was prohibited because they did not have anti-doping education. Subject 7 felt that the Code is not fair because it applies the same rules, without discriminating, to countries like the United States, Angola, and Haiti. The last two are examples of countries that, to the extent of Subject 7's knowledge, do not even have enough physical education teachers, let alone anti-doping education. Although Subject 7's understanding of the Code and ISCCS may be limited, his perception may have a negative effect on program implementation; thus, there is a need to enhance WADA's awareness and information strategies.

In addition, some of the interviewees thought that the relationship between governments and NOCs in Peru and Bolivia is a constant struggle. One of the reasons, per the perception of the interviewees, is the poor affinity between NOC and government authorities. Historically, they said, NOCs tend to have the same leadership for long periods of time because they function as private organizations, with funding from the government, under the leadership of the IOC. Sports ministry leadership, on the other hand, often changes with new governments. With regard to these political struggles between the NOC and government, Subject 5 stated:

For example, the Olympic Committee [in reference to its leadership] is not necessarily part of the current government; it is considered part of the opposition. And, obviously, the Ministry of Sport, which depends on the government, must be part of the party [because Subject 5 is hired by the government, she seemed to be forced to be in league with the party in power]. I am, being part of the sandwich— i.e., depending on both— perceived as a bad thing for the government.

New leadership in government typically brings new political agendas, which may or may not be in line with those from the NOC. With regard to this, interviewees believed it creates power struggles that affect anti-doping operations. As explained in Chapter 2 of this dissertation, the anti-doping system is created with the support of both governmental authorities and the sports movement. Therefore, having constant separation between the two at the national level can have a negative impact on the implementation of national anti-doping programs. Subject 8 explained:

the discrepancies between the government and the Bolivian Olympic Committee are born, amongst other reasons, from an authority issue. Even though the sports ministry has been in charge of anti-doping, the organization that is officially responsible for anti-doping is the National Olympic Committee . . . Therefore, to a certain extent, there is an issue of jealousy and selfishness between the two, as it is not clear who is in charge of activities.

According to Subject 1, this issue is further exacerbated if the two organizations have been (historically) distant from each other due to political reasons.

In addition, interviewees indicated that the current governance structure of sport in Peru and Bolivia does not prevent conflicts of interest from happening between sport and anti-doping. This happens because authorities from both sides of the aisle, government and NOC, promote sport while at the same time implementing anti-doping programs. However, this problem goes beyond the situation in Peru and Bolivia; according to some experts, it is an intrinsic, widely debated weakness of the governance of the world anti-doping system.

According to many critics of the anti-doping system, the governance structure established for WADA at inception may allow conflicts of interest to take place. WADA's governance divides decision-making powers between the IOC and governments, allowing their members to sit on the agency's Foundation Board and Executive Committee. Until the end of 2019, it also permitted a WADA president to simultaneously hold a leading position in the IOC. Current WADA governance reforms have changed this. These types of governance issues, in many cases, extend to the national level, as is the case in Peru and Bolivia. This overlap of functions can have significant consequences, especially when it comes to policy-making and operational independence.

With regard to this issue, Subject 8 from Bolivia stated:

Here we enter another issue: that is that federations are protected by the National Olympic Committee . . . Other than lack of interest, there is a fear of losing more than what you can gain by implementing what is established in the Code. Also, there is fear of losing control.

Subject 8 further stated that both the NOC and the government authorities seem to have the desire to control all sports activity in the country, not allowing the responsible divisions and people manage programs as they are supposed to. Subject 1 agreed, "Politically, it is not good for you [talking about political authorities from the government and NOC] to lose control over anti-doping. It is within your control system." Subject 1 believed it is about power and control.

To further the conflict of interest problem, interviewees believed their government authorities, with exceptions, are not prepared to professionally manage. They said leaders are appointed based on political favors and paybacks and not on merit and capacity. This situation presents a barrier to effectiveness and the consolidation of governmental institutions because, interviewees suggested, in order to run complex organizations effectively it is necessary to have competent leadership. Subject 5 said, “I think to be an authority and, in this case, lead sport at the national level, you must be qualified for the job.” This implies that those currently in charge are not qualified. Subject 1 added, “The criteria [for choosing leaders] used to appoint a minister is not meritocratic. It is politics. Thus, I can have an agricultural engineer leading a Ministry of Education.” He went on to say that “in the governments of developed countries, its ministers and leaders [that] have academic training; they’re not just people that land in government positions because they know people in the highest rankings of government.”

Finding 5: Cultural Views Affect Compliance and Perception of Anti-Doping in Peru and Bolivia. Cultures are different in the way they perceive and respond to a variety of aspects of reality. Therefore, they change and tend to overlap with each other. In this context, NADOs have their own cultures. However, they are simultaneously a subculture of the cultures they interact and coexist with: for example, WADA, the NOC, government, country, and so forth. Although NADOs are influenced by the culture of international anti-doping, they are heavily influenced by those of the countries to which they belong. This has an impact on the performance and compliance of their anti-doping programs.

Participants believed that culture affects the NADOs’ operations and the implementation of anti-doping programs in Peru and Bolivia. They suggested that this influence can be divided (i.e., in their particular sociocultural context) in two categories: (1) culture as an influencer of

perception toward anti-doping, and (2) football as a culture of its own in the region and its impact on anti-doping policy.

From the interviewees' point of view, anti-doping is perceived from two specific perspectives. The first, referred to in this research as the negative perception, is associated with the international rules and regulations (i.e., the Code, International Standards, etc.), which the participants believed to be stringent and unfair to small developing countries, such as Peru and Bolivia. Although this perception may be the by-product of limited understanding, it has the potential to affect compliance. For example, Subject 8 declared, "The lack of interest [from authorities] is born because the norms [international regulation], I think, are too demanding for them [the countries] and neither the government nor the National Olympic Committee have the capacity to implement them 100%." Subject 7 had the same opinion:

There is unbalance and total lack of equilibrium. That is, between the current situation of those countries which have the possibility of fighting doping adequately and other countries that do not have the possibility of anti-doping for many reasons, such as lack of political support, poor resources, limited anti-doping knowledge and education, etc. However, sanctions [under international regulations] are the same. How is that a balanced, global approach?

The second, interpreted in this research as the positive perception of anti-doping is related to the participants' belief, based on cultural morale and the ethical principles associated with the spirit of sport: that anti-doping is good and necessary to preserve the values of sport. With regard to this notion, Subject 3 stated:

We have to strengthen clean sport. We believe that sporting men and women have to compete under the same conditions, only differentiated by their talents, discipline, commitment, perseverance, and training methods, not by using a prohibited substance to give them an edge in performance.

When asked whether anti-doping is important, Subject 10 replied, "Yes, yes, totally. Everyone needs to have the same conditions, and the practice of sport must be fair."

In the participants' view, the challenge seems to be ensuring that the implementation of international regulation does not clash with their cultural views, resources, and overall capacity. In addition, football in Latin America is the most popular and powerful sport, both politically and financially. That is certainly the case in Peru and Bolivia. From the interviewees' perspective, football exists within a parallel reality from other sports in the region both because it is financially independent and has the support of the population. Football does not depend on government funding, while most sports do. This is a sport that generates its own private revenue; most sports in Peru and Bolivia do not. Thus, the participants living within this alternate reality are not interested in adhering to universal regulations (e.g., the Code). They believed that these regulations have the potential to harm the financial and social interests of the sport. For example, a player, who makes millions of dollars for his club and himself, could be out of the field for years for an anti-doping rule violation (ADRV) under the Code. Overall, that is bad for business.

Subject 4 shared the following:

Therefore, people were willing to hear [in relation to a doping case in football] what they wanted to hear. I remember we went to meet with them [the National Football Federation authorities]—I was part of the government then—to discuss the way forward with the case, and only a few of us agreed the player had done wrong. The majority there said the player was the victim. And that is because there is not only a lack of knowledge but also an interest that the player continues playing and the team wins. There are mixed interests and feelings.

This situation threatens the jurisdiction and legitimacy of NADOs in Peru and Bolivia as they feel regularly challenged by football's power. This debilitates the NADOs, the anti-doping system, and therefore negatively impacts the perception of anti-doping in these countries. This problem was highlighted by Subject 8, who said, "The sport most practiced in Bolivia is football. And the National Football Federation in Bolivia has had many discrepancies with the National

Olympic Committee and the government, which has a direct impact in the NADO's involvement in sport."

Finding 6: Sanctions May Have a Positive Impact on NADO Development and Compliance. Interviewees strongly believed education plays an important role at both preventing athletes from doping and keeping authorities informed on their anti-doping responsibilities. Subject 1 emphatically said, "[education] helps prevent doping. We should educate first, then test." The rationale behind Subject 1's suggestion is that the potential deterrence effect of ex ante control (i.e., prevention) is more effective than that of ex post control (i.e., testing and sanctioning). Furthermore, this is particularly relevant when there are limited resources available and the world of sports, or "the universe of sports" as Subject 6 called it, is very big, and education is a great tool to reach it at fairly low cost, if compared to the costs associated with testing.

However, there is a widespread perception across interviewees that sanctions, when adequately combined with prevention strategies, have the potential to enhance anti-doping program development and compliance, whether on athletes when they get caught committing ADRVs or on signatories for having noncompliant normative or anti-doping programs. Interviewees believed this is because government authorities and politicians are susceptible to public opinion and the media. They added that authorities would do anything to avoid the political and social unrest that sanctions would produce and that would fall under their responsibility. Therefore, participants suggested that when sanctions are imposed, there is opportunity to push for development, including changes in legislation, request for more resources, enhancements in infrastructure, acquisition of materials, and so forth.

Thus, participants thought the media and public opinion have the muscle to push leaders to pay attention to and support anti-doping programs. Subject 3 from Peru said that after the Toronto 2015 Pan-American Games, where Peru lost two medals for doping, there was a need to get more involved in anti-doping matters, from a government perspective. He stated, “The great pressure given by the media and congress forced the sports minister to start the NADO, hire staff, and assign a budget.” On the same matter, Subject 1 strongly believed that without all the external pressure, the NADO would never have been formed. Although not good for the athletes, he also suggested, having the two positive cases in Toronto was a positive pivot point for anti-doping development in Peru.

In this context, the interviewees emphasized that issues of noncompliance with the Code could be solved with strong sanctions from WADA. That is, they believed that with enough pressure, authorities would assign the necessary resources to anti-doping if they were given or threatened with significant sanctions. Examples of “significant” sanctions might be the nonparticipation of athletes at international competitions or being prohibited from hosting international sporting events at home. Participants said they would not want such extreme measures to be taken because clean athletes would also be impacted, but they believed it is probably the best way to encourage development of Code-compliant anti-doping programs.

Subject 8 stated:

I believe that in order for this to happen [anti-doping development], we must begin to work a little more from the Federations to institutions such as the Ministry and the National Olympic Committee. With more demand and to some extent, from what I have seen, sanctions perhaps they [authorities] would really understand that it is a need of utmost importance in the country.

Moreover, Subject 5 added that, from her perspective, there is a good way and a bad way to develop anti-doping programs in the country. A bad way, she suggested, although it would not

make athletes happy, would be that something serious happens to Bolivia, such as strong sanctions for noncompliance with the Code being imposed on the country that would leave Bolivian athletes unable to participate internationally. This could have been the case at the Lima 2019 Pan-American Games. Subject 5 said, “when they [authorities] ask why this happened, everyone will know it is because we did not comply.” In line with this, Subject 9 thought that to have Code-compliant anti-doping programs, their country would need to receive a strong sanction: one that is followed by an ultimatum to form a NADO with enough resources and an adequate structure. He stated, “a structure that really meets WADA’s standards.”

Chapter 5: Discussion

The purpose of this study was to identify and understand the factors that affect Code compliance of the NADOs in Peru and Bolivia. By identifying and understanding these factors, including the environments in which they occur and how they interact with each other, this research can support policy regulators to develop effective context-based development and compliance strategies. This chapter presents a comprehensive interpretation and discussion of the findings and their implications, aided by theories (see Chapter 2) that are relevant to their interpretation.

This chapter is divided into three main parts: (1) New Findings Model, (2) Analysis of the Three Main Findings in Light of the Relevant Theories, and (3) How to Strengthen the Compliance Strategy: Implications for Practice.

New Findings Model

The factors that affect compliance of the NADOs in Peru and Bolivia are embodied in the six findings identified in Chapter 4 (see Figure 10). Figure 11 shows these six key findings.

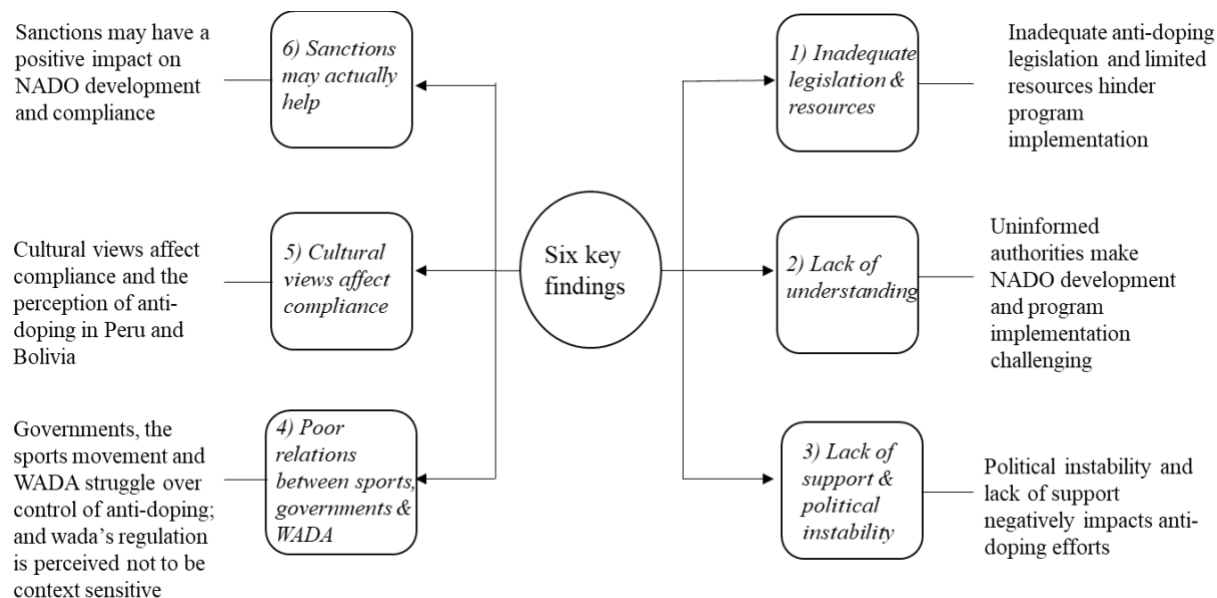
In order to examine the six key findings, a conceptual model was developed in which the six findings were divided into three main findings. This model was created considering the specific characteristics of the findings, their relationships, and what the theories say about them in order to group them based on their proximity and in a way that facilitates and enriches the discussion. Figure 12 shows the conceptual model proposed.

In simple terms, the model endeavours to provide a clear view of (a) what is going on with NADOs' Code compliance, through the three main findings (Step 1 in Figure 12); (b) what implications the findings present in reality, from NADO development to compliance (Step 2 in Figure 12); and (c) what the theories say about the findings and what could be done in practical

terms to improve the situation (Step 3 in Figure 12). This research, therefore, attempts to not only provide insight into the research question but also create the grounds for the development of practical solutions.

Figure 11

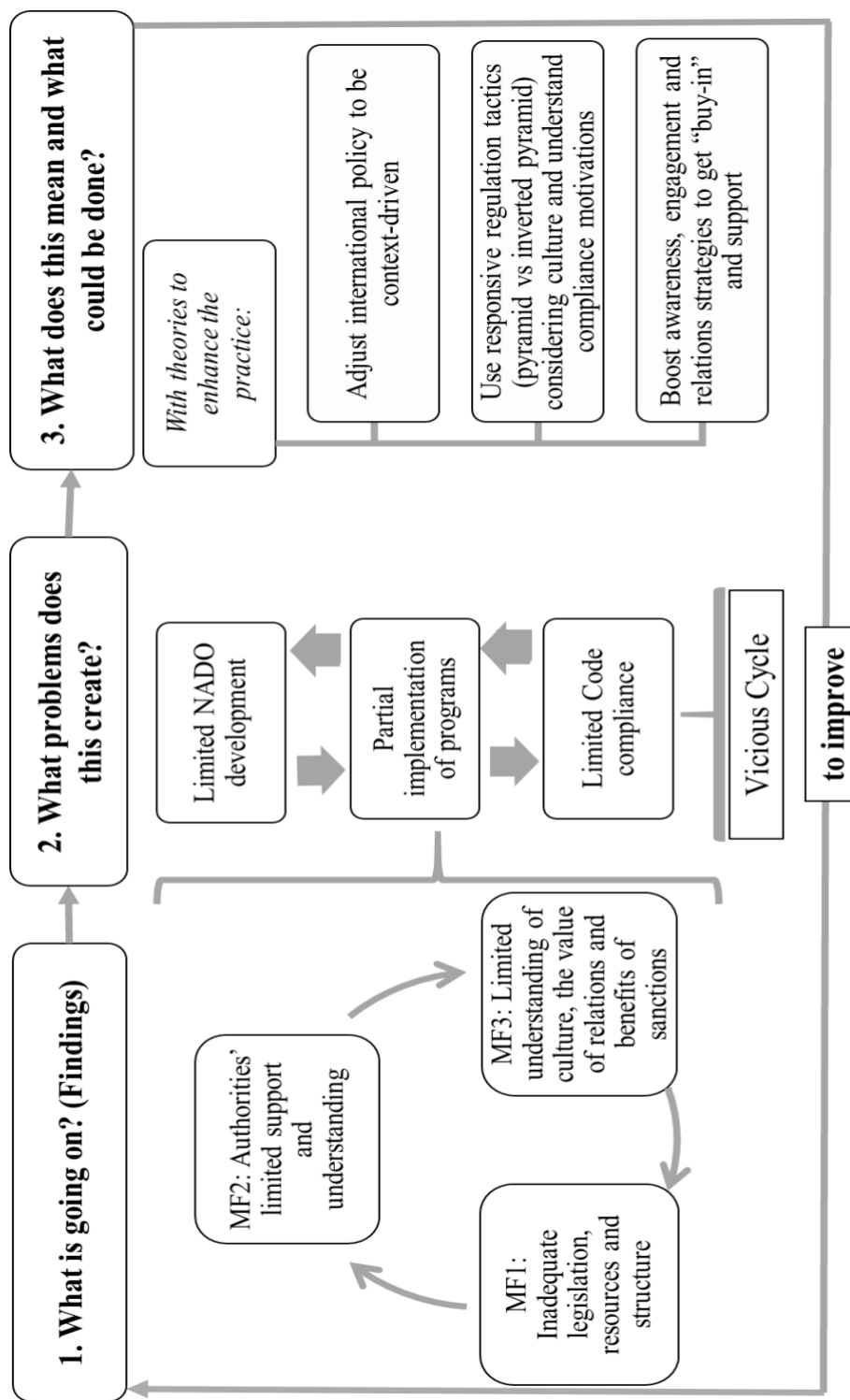
Six Key Findings of the Study



Note. NADO = National Anti-Doping Organization; WADA = World Anti-Doping Agency; NOC = National Olympic Committee.

Figure 12

A Conceptual Model of the Findings



Note. MF = Main Finding; R = Relationship; NADO = National Anti-Doping Organization.

Although each NADO operates in a unique environment, the six key findings of the study embody the common factors that affect compliance in both countries according to the interviewees. However, bearing in mind that the circumstances are not static (e.g., the NADO in Peru went from having almost no anti-doping resources in 2015 to having limited but consistent resources the next 4 year), the factors as well as the findings may change over time.

Chapter 2 outlined the study's conceptual framework, including the relevant theories and models used to frame the research question. Here, in Chapter 5, some of these theories and models are brought back to shed light on the study's findings. The purpose of doing this has a practical nature, which is identifying ways in which these theories and models can (1) better address the research question and (2) be used to strengthen compliance strategy. In order to accomplish this, it is important that the theories are adapted to the nature of the findings, and not the findings to the theories, in order to make them fit for purpose. Therefore, the goal of the following sections is not to conduct a mechanical exercise to validate the current theories and encapsulate the findings within them but to make sense of them in a way that practitioners find transferable and useful.

In addition, it is important to note that the relationships among the three main findings have been established taking into consideration the quantitative and qualitative analysis conducted in Chapter 4 and how they relate to the relevant theories. Figure 13 illustrates how these relationships among the main findings of the NADOs in Peru and Bolivia create a vicious cycle.

Firstly, the data analyzed strongly suggest that anti-doping legislation seems to be a key aspect in generating NADO development and compliance. Thus, not having adequate legislation has negative consequences in terms of resources (among others), which are necessary for

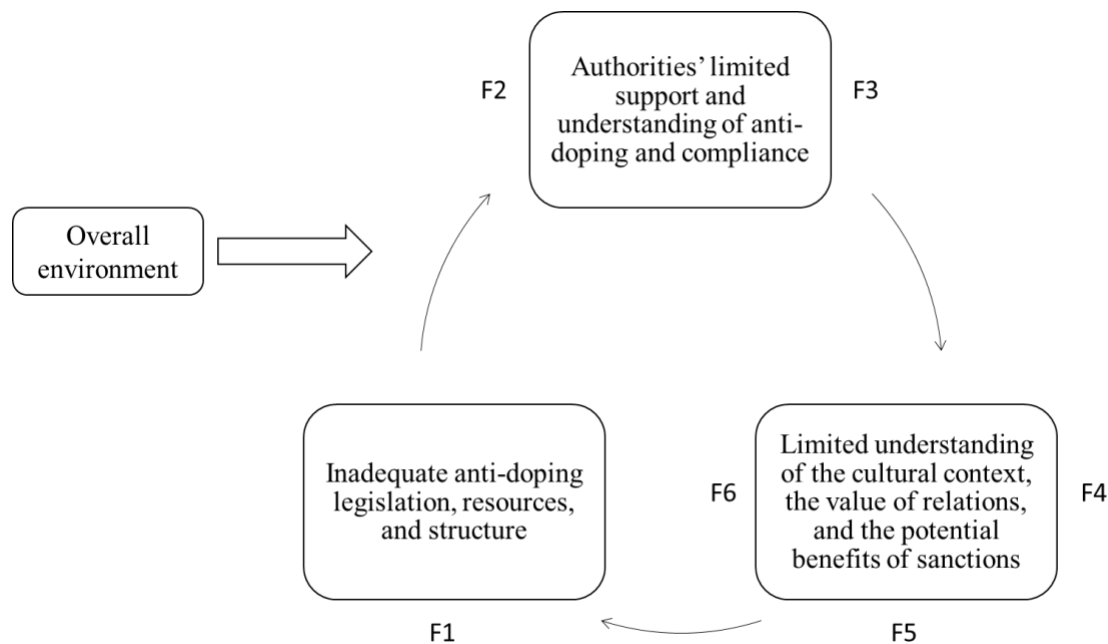
program implementation. However, to have suitable anti-doping legislation, it is necessary to have political buy-in, which will not happen if authorities are uninformed about anti-doping.

Secondly, the lack of proper anti-doping legislation forces NADOs to be dependent on the generosity of sports and political authorities to conduct day-to-day operations. However, the high rotation of sports and political authorities due to political instability results in the constant change of NADOs' management. This management also, more often than not, has little anti-doping understanding and expertise and provides limited support to the organizations. This reduces support for anti-doping, constrains overall growth, stalls project implementation, and makes capacity building a wasteful exercise.

Finally, political support is constrained further because the relations between leaders of the sports movement, governments, and anti-doping organizations are poor. Moreover, international anti-doping policy is perceived as being decontextualized, failing to capture the cultural differences of Code signatories. For example, international anti-doping policy is perceived as not adequately implementing “sanctions to collaboration” versus “collaboration to sanctions” strategies depending on the context.

Figure 13

Peru's and Bolivia's Vicious Cycle of NADO Development and Compliance Based on the Study's Three Main Findings



Note. F = Finding.

Table 25 shows the number of excerpts associated with each one of the three main findings of the study. The three main findings presented in the next part of this chapter are discussed in the order in which they are listed on this table, starting with Main Finding 1 and finishing with Main Finding 3. However, this order is not related to relevance. All three main findings are equally important because they represent the factors that affect compliance of the NADOs in Peru and Bolivia.

Table 25*Frequency of Excerpts in the Three Main Findings of the Study*

Main findings	No. of excerpts
MF1: Inadequate anti-doping legislation, resources, and structure	97
MF2: Authorities' limited support and understanding of anti-doping and compliance	139
MF3: Limited understanding of the cultural context, the value of relations, and the potential benefits of sanctions	62
Total	298

Analysis of the Three Main Findings in Light of the Relevant Theories

Main Finding 1: Inadequate Anti-Doping Legislation, Resources, and Structure

Main Finding 1 includes the following key finding from Chapter 4: Peru and Bolivia have inadequate anti-doping legislation and limited resources that hinder program implementation (Finding 1).

Problems Created by Inadequate Anti-Doping Legislation, Resources, and Structure. The data strongly suggest anti-doping legislation is critical for program development and compliance. The NADOs in Peru and Bolivia are not well established within the government structures because neither country has robust anti-doping legislation. In the view of the interviewees, this has negative consequences in terms of resources, which are necessary for program development and compliance with the Code. For instance, both NADOs have insufficient human and financial resources due to the lack of legal and administrative support. This directly impacts the implementation of anti-doping programs, such as testing, education, results management, and so forth.

Although the NADO in Peru has operated with a small budget since 2016 (see Table 10), its current legislation does not protect the budget. Therefore, the NADO's budget is dependent

on the irregular political support it can get from the minister in charge: support that can change from one authority to the next. For example, if a new minister is appointed and he or she has a different agenda than its predecessor, the NADO may lose its budget.

This is a fragile and dangerous situation facing both the Peruvian and Bolivian NADOs due to the lack of adequate anti-doping legislation.

International Relations Theory: The Legislation Gap. The anti-doping system is validated across borders by the 2005 UNESCO International Convention Against Doping in Sports (the Convention). The Convention was approved and signed by States Parties in 2004. Since then, it has become the second most ratified legislation in the history of UNESCO. The anti-doping system exists (i.e., as a collective multinational endeavor) in part because States Parties have agreed they would recognize it internally, within their national jurisdictions with legislation and rules to make it operational, and externally as the universal, standardized approach to combat doping in sports.

However, this may not be happening consistently across the world. For example, as it was explained earlier, neither Peru nor Bolivia have adequate anti-doping legislation. As it happens, Peru does not have a specific anti-doping law, but the country does have a sports law (Ley de Promoción y Desarrollo del Deporte). Peru's Sports Law 28036, Subchapter 3, Articles 29–32, lays out the object, conformation, and functions of the NADO in Peru (Comisión Nacional Antidopaje [CONAD]). However, Law 28036 does not state how the organization is funded or what mechanisms are in place to protect its operational independence.

In the case of Bolivia, the situation is more complicated. Unlike Peru, where Law 28036 creates the NADO, in Bolivia the current Sports Law (804) and the Presidential Decree (3116) amending it do not. Law 804 intermittently references anti-doping through its text in Articles

36.4, 38.2, and 53.d. And Decree 3116 does it in Articles 4.8, 37.d, 45.a–c, 46, 62.II.3, and 62.III.4. However, neither establishes a NADO nor explains how or who would fund anti-doping in the country. Although Articles 45 and 46 of the law appear to assign anti-doping responsibilities to the Ministry of Sports, it does not detail how this happens in practice from an administrative perspective, particularly as it concerns resources.

In addition, participants in the study believed that the sports ministries in Peru and Bolivia are large, complex, and highly bureaucratic institutions, where receiving resources for anti-doping activity requires overcoming several bureaucratic impasses, both legal and administrative.

However, it is important to highlight that bureaucracy in and of itself is not necessarily the problem. Dixit (2012) mentioned the following:

The tasks of collecting the requisite information, enforcing the rules, collecting revenues and disbursing payments, initiating and supervising public projects, and so on must be delegated to people and organizations that have or can develop special skills in these matters. Therefore, a bureaucracy for policy implementation is unavoidable. (p. 2)

Dixit implied that, whether in the context of democratic or dictatorial states, no policymaker can develop and implement policies directly. Thus, technically speaking, bureaucracies are needed to run government institutions (Dixit, 2012). Nevertheless, the main issue identified in this study is rooted in the fact that program implementation is dependent on administrative government agencies (i.e., bureaucracies) that are responsible for anti-doping but that do not have the legal framework to enforce it.

Therefore, it is important to emphasize that even though the participants thought government organizations are inefficiently run, the main issue constraining NADO development is not bureaucracy but the fact that both countries lack adequate anti-doping legislation.

It is evident that in spite of both countries having ratified the UNESCO Convention and consequently committed to creating internal legal mechanisms to ensure anti-doping is implemented in compliance with the Code, in practice this is not happening.

There are several context-specific reasons for this, such as politics, bureaucracy, economic systems, ideologies, and cultures. One of these reasons is associated with the difficulties surrounding the application and effectiveness of international law (O'Connell, 2008). The theories on international relations provide insightful perspectives on the factors that affect the applicability of international regulation (Snyder 2004). Although there are many theories on the subject (i.e., realism, institutionalism, Marxism, liberalism, neoliberalism, constructivism, post-structuralism, feminism, etc.; McGlinchey et al., 2017), liberalism and Marxism have been two of the most influential in the past decades (Snyder 2004). Furthermore, given the political and socioeconomic environment in which the NADOs in Peru and Bolivia operate, the two theories provide relevant insight into the research question.

Although the Code is mandatory for all signatories across the world, independent from their specific economic or political systems, Code implementation (i.e., implementing international law) may be affected by the different ideological views of signatories (Bamberger, 2008; Govindarjan, 1988; Thai, 2014). For instance, the perceptions of interviewees with regard to WADA regulation is that it is neither context-sensitive nor does it serve the needs of the developed world. This can become a challenge when the Code needs to be adopted and implemented in places of the world where the political, economic, ideological, or cultural contexts are different from those upon which the Code is founded. For instance, Code Article 20.5.1 says, on the roles and responsibilities of NADOs, that they should “be independent in their operational decisions and activities” (WADA, 2015, p. 111). Although this Code article

may be in line with how organizations and institutions are expected to operate within most liberal democracies (Meiser, 2018; the Code is based on the principles of proportionality and human rights; concepts that underpin the systems of Western world liberal democracies), it may face challenges in societies where organizations, particularly government organizations, are dependent on a strong centralized authority, such as the case of Bolivia. The data analyzed in Chapter 4 indicated that the political, economic, and ideological environment in Peru and Bolivia is rather different between the two countries. In the past two decades, Bolivia has had a nationalist government (i.e., between 2006 and 2019 when Evo Morales was president), while Peru has had, during the same period, governments considered, for the most part, as liberal democracies.

Although this is only one factor (and Code implementation is dependent on many factors), the data analyzed in this study suggest that it may be easier to implement the Code within systems that, ideologically speaking, embrace similar principles of those underpinning the Code. International regulators may consider these differences when developing international policy (Thai, 2014). This is particularly important to ensure that international laws and policies are accepted and, therefore, duly incorporated within the legal systems of their signatories (McClelland & Pfaltzgraff, 2019; Thai, 2014). This would further ensure signatories have the legal base to implement the necessary administrative mechanisms, including the allocation of sufficient resources, for the development and operation of organizations and programs aligned to international laws and policies.

Organizational Performance Theory: Missing Resources. The lack of adequate anti-doping legislation in Peru and Bolivia makes NADO development and Code compliance difficult

because neither country has stable resources assigned. However, NADO performance in Peru and Bolivia differs significantly.

Table 10 in Chapter 4 shows that Bolivia did not have a NADO budget between 2015 and 2018. The fact that Bolivia has little financial resources for anti-doping obviously has a direct impact on the NADO's capacity to implement anti-doping programs. In line with the lack of resources, the NADO in Bolivia only had one volunteer staff to run all operations. Furthermore, this person was changed, for political reasons, every year during the same period. In addition, the NADO has neither implemented an education program (i.e., for 2015–2018) that is in line with WADA's Education Guidelines nor has conducted testing with their own budget since 2016.

Regarding the NADO in Peru, the human and financial resources data indicate growth since 2016 (see Tables 10 and 11 in Chapter 4). However, as previously explained in the discussion on legislation, in the view of the participants, the resources of the Peruvian NADO are dependent on irregular political support from the sports ministry. It is not substantiated by law. Therefore, the NADO's situation is not stable or sustainable.

The participants in the study said the NADOs need human and financial resources to implement Code-compliant anti-doping programs. In addition, they said that with the continuous strengthening of the Code and the International Standards, anti-doping has become more complex and costly than ever before. This places extra pressure on signatories to equip the NADOs with greater resources. This seems to be a problem for Peru and Bolivia, where resources appear to be limited.

However, the notion that more resources translate into more and better results is not necessarily accurate, as there are other such factors that affect organizational performance as capacity, leadership, culture, and so forth. According to Boyne (2003), the correlation between

higher spending and better programs is limited. This is particularly important when analyzing cases such as the NADO in Bolivia (and also that of Peru), an organization with scarce resources. According to the interviewees, the problem is not only that they have very limited resources but also what is done with these resources. Long (1949) suggested that when there is political support, managers can resolve issues related to policy and allotment of resources. However, here, participants suggested, management plays a critical (constraining) role. This is especially relevant for public organizations, such as the majority of NADOs worldwide, where the level of managers tends to be lower than in the private sector (O'Toole & Meier, 2015). Also, to make their administration even more complicated, they must overcome divided and antagonistic political systems that make the implementation of programs difficult.

Although resources are important for organizational success, the real impact of resources on organizational performance can only be fully understood when understood in context. This context must be assessed from various perspectives, including regulation (i.e., legislation, rules, strategy, etc.), market structure, organization, and management (Boyne, 2003).

Main Finding 2: Authorities' Limited Support and Understanding of Anti-Doping and Compliance

Main Finding 2 includes the following key findings from Chapter 4: uninformed authorities make NADO development and program implementation challenging (Finding 2) and political instability and lack of support negatively impacts anti-doping efforts (Finding 3).

Problems Created by Authorities' Limited Support and Understanding of Anti-Doping and Compliance. The consolidation of the NADOs in Peru and Bolivia is affected by the limited anti-doping knowledge and expertise of those who have the responsibility of managing them. Interviewees said that although they acknowledge this is a problem for the society at large, they believed it is particularly detrimental for NADO operations when their

authorities do not understand anti-doping. In this context, interviewees highlighted the need to strengthen anti-doping education programs not only with the goal of preventing athletes from doping but also to ensure authorities remain informed of their anti-doping responsibilities.

Adding to the problem, the NADOs are not adequately established by legislation and thus do not have formal resources assigned to them. Therefore, the NADOs depend on political generosity (i.e., to obtain resources for the NADO) to run day-to-day operations. Without this political generosity, resources would not be available to them; without resources, NADO operations are not possible. In this context, having informed management is critical to implementing anti-doping programs and being compliant with the Code.

However, political instability makes keeping authorities informed a challenging exercise. Firstly, political instability generates a constant state of uncertainty in the countries at large (i.e., investment in the private sector stalls, the economies go into recession, etc.). This is especially noticeable within the public sector where the NADOs are located. In the case of Peru and Bolivia, political authorities are changed, internal audits take place, projects are stopped, and annual budgets are delayed or cut.

This situation does not foster an adequate environment for NADO development, which requires a certain degree of stability to implement Code-compliant anti-doping programs. Furthermore, operational independence from the government and/or the sports movement is critical to ensure anti-doping programs are executed effectively and without interruptions. This means that NADOs should operate in their activities independently from governments or NOC authorities to ensure the implementation of programs is unaffected (or less affected) during times of political turmoil. In this context, sound governance structures are needed in order to enhance accountability and prevent conflicts of interest.

Secondly, political unrest and constant changes in management make political support for anti-doping inconsistent. This is a critical issue for compliance in Peru and Bolivia, considering that neither NADO depends on political support to function, as previously discussed in Chapter 4.

Prevention. The rules and responsibilities of all signatories are outlined in the Code. The rules in the Code include education and information-based prevention, as well as compliance (among other aspects of the World Anti-Doping Program). In this rules' framework, NADOs play a key role to ensure Code implementation. This is because NADOs are usually the first contact between anti-doping and athletes and athlete support personnel (Gatterer et al., 2020). This gives NADOs a strategic position within the world anti-doping system to protect clean sport.

Although the effects of compliance (and sanctions) in anti-doping still need further assessment and research, the current scientific literature suggests that ex post approaches, such as testing and sanctioning, seem to be less effective than those that are ex ante, such as information, education, and prevention strategies (Gatterer et al., 2020). This is confirmed by the still limited effectiveness of the current international compliance policies developed in recent years, as well as the low results (between 1% and 2% of positive cases per year) in spite of the enhanced detection and deterrence strategies implemented (Overbye, 2017; WADA, 2019b).

The main premise upon which prevention theories are built is that when athletes have received anti-doping education early and throughout their careers, they will be in a better position to resist doping even within high-risk environments (Erickson et al., 2015; Overbye et al., 2013).

However, anti-doping programs cannot rely solely on ex ante or ex post strategies, they must probably combine the two taking into consideration the needs and characteristics of each specific environment.

Organizational Performance Theory: The Role of Management. Participants emphasized that having uninformed management negatively impacts NADO operations. They further indicated that given the political instability in the countries, the limited political support for anti-doping, and the constant changes in management in the sports system, developing and evaluating long-term goals for the NADOs is not realistic. Therefore, strategy, if any, is limited to the day-to-day operations.

In this context, Jann et al. (2017) said that monitoring the performance of NADOs and their anti-doping programs is quite challenging given that the research on the performance of NADOs is incipient. However, participants in this study strongly believed that uninformed management inhibits goal achievement. The role of management in organizational performance has been studied extensively, particularly for the private sector. Hansen and Wernerfelt (1989) indicated that there is a significant correlation between good management and organizational effectiveness. In line with the organizational performance theory, interviewees suggested that both government and NOC authorities are not prepared to manage anti-doping. This, they believed, constrains organizational performance, making the implementation of programs very difficult. Therefore, it should not be a surprise that NADOs with less experienced management, as is the case of the NADOs in Peru and Bolivia, perform at lower levels than those with expert management. This affects Code compliance.

This problem is further exacerbated when it comes to organizations within the public sector, where the performance management linkage is less clear and less researched. However,

Boyne (2003) explored the meaning of public service improvement by analyzing the different theoretical perspectives that discuss the causes that affect the quality of public administration (Peru's and Bolivia's NADOs are public organizations). In his model, Boyne addressed the issue of management. Boyne grouped these perspectives into five key groups: resources, regulation, markets, organization, and management. By looking at each of these aspects, their interactions, governments and organizations can identify specific issues affecting their performance.

Specifically, with regard to the performance management discussion, Boyne (2003) said that the main factors surrounding management are the following: leadership and expertise, organizational culture, human resource management, strategy processes, and strategy content. In line with the theory, it is possible to infer that uninformed or inexperienced management has the potential to hinder organizational performance, as seems to be the case for the NADOs under study.

Table 22 in Chapter 4 shows that there is a significant difference in compliance between the NADOs in Peru and Bolivia across the two levels of assessment: (1) documentary compliance for Peru was 85.71%, and for Bolivia it was 42.85%; and (2) applied compliance for Peru was 65.50%, and for Bolivia it was 24.10%. Overall performance scores were 75.61% and 33.47%, respectively. Although the assessment indicates that the Peruvian NADO is performing better than that of Bolivia, both organizations are still underperforming (relative to the Code and International Standards requirements).

Boyne et al. (2011) argued that changes in top management can lead to improvement when initial performance assessment is negative. However, they also emphasized the importance of retaining good management when performance is good. This is also a problem in both Peru's and Bolivia's NADOs, where, according to the interviewees, the high rotation of authorities and

NADO personnel due to political instability affects the implementation of anti-doping programs and the compliance of NADOs.

Contingency Theory: The Performance Management Linkage. The performance management link must be analyzed in context. Contingency theory suggests that the setting where an organization functions defines the best way to structure it. The premise of this theory is that the proper alignment of situational variables and organizational strategy will translate into the best performance possible (Betts, 2003). However, achieving this in practice is not easy when the work environment, as is the case for the NADOs in Peru and Bolivia, is heavily politicized. This becomes a great task for public managers, who must juggle organizational performance with politics. In addition, new research findings suggest that the way management affects performance differs vastly across contexts. O'Toole and Meier (2015) stated:

(Public managerial contexts differ greatly in the level or extent of development, especially economic development. This is especially true, of course, when considering how public management operates in countries that differ vastly in terms of educational levels, social stability, and economic advancement. Management should operate best when provided with relatively stable settings, competent and depoliticized civil service systems, and well-developed infrastructure for generating performance.) (p. 19)

Contingency theory is extensively recognized in the research on international relations and management, providing a framework to deal with strategy formulation and implementation in the context of international environments (Govindarjan, 1988). This is particularly relevant to anti-doping strategy where, as the data analyzed in this study suggest, there could be a stronger emphasis on raising awareness among NADO management and government authorities.

The theory indicates that raising awareness can be improved by placing greater emphasis on the link between management and organizational performance (Bamberger, 2008; O'Toole & Meier, 2015). O'Toole and Meier (2015) suggested that, prior to developing a standardized

approach to compliance, international organizations should first research and understand the characteristics of stakeholders. With this information, the development and implementation of strategy may ultimately return greater compliance of parties.

This, in Bamberger's (2008) view, should be paired with a comprehensive understanding of the situational factors that affect the compliance of stakeholders (e.g., the economy, politics, culture, and the normative and institutional structures under which they operate). In this context, data in this study suggest that the international regulators may benefit from strengthening their government engagement (and relations) strategies. This may help increase awareness and buy-in of local leadership, which the participants strongly believed could have a positive impact on compliance.

Political Theory: The Consequences of Political Instability and Lack of Political Support. The participants in the study also believed that political instability and the lack of political support for anti-doping in Peru and Bolivia constrain NADO performance. Looking at the problem from a wider angle, it is important to note that political instability in Latin America is rooted in several historical, economic, and sociological factors that date back to colonial times. However, Alesina and Perotti (1996), as well as Roe and Siegel (2011), suggested that great economic inequality is the most important cause of political instability; they proposed that systems that fail to engender sufficient equality for the middle classes end up having deep negative consequences in society, generating social unrest that translates into political chaos that affects the psychological state of individuals and the performance of organizations.

Although the Code must be implemented by all signatories equally (i.e., considering WADA's International Standard for Code Compliance for Signatories (ISCCS) and its prioritization policy described in Chapter 2), the political and economic heterogeneity among

signatories is vast, making it a challenge. Participants stated that while their countries had ratified the 2005 UNESCO Convention Against Doping in Sport and their NADOs have intentions to meet the requirements of the Code, their capacity to remain compliant depends on their political and economic circumstances. Roe and Siegel (2011) suggested that political instability obstructs organizational and financial development. Furthermore, they said that research “results indicate the existence of an important channel running from structural inequality to political instability, principally in nondemocratic settings, and then to financial backwardness” (p. 1). Both Peru and Bolivia have had (on and off) nondemocratic states since the 1990s.

Since the early 2000s, Peru has had multiple changes in government and sports authorities due to political unrest. The country has had eight presidents during this period. Although the Peruvian economy has remained rather stable (CEIC, 2018), with a steady 4.6% average growth of the GDP, the constant variations in leadership, according to the participants in the study, has brought political instability to the government and, by cascade effect, to the Ministry of Sports and the NADO. This situation has slowed down the development of the sports system and consequently that of anti-doping. Although anti-doping in Peru started growing in 2015, the system has yet to consolidate. For this, political stability is needed. However, severe political instability due to military coupes, political unrest, and constant changes in government leadership has undermined organizational performance, particularly within the public sphere (Roe & Siegel, 2011). Interviewees suggested the situation is not getting any better.

Bolivia’s government leadership, including that of sport, has been in power for over a decade. Evo Morales, the country’s president since 2006,⁶ runs a centralized nondemocratic

⁶ Evo Morales resigned to the presidency in the last quarter on 2019.

nationalist regime. In this political environment, Bolivia's GDP has experienced an average growth rate of 2.2% per year, slightly slower than Peru's but in line with the rest of the countries in Latin America (CEIC, 2018). Acemoglu et al. (2003) linked modest macroeconomic policy to a frail organizational environment. This seems to be the case in Bolivia where, from a sports and anti-doping perspective, organizations such as NADO do not perform well. As an example, in the past 4 years, Bolivia has had four different anti-doping representatives to the SAM RADO and no NADO budget. Participants strongly believed constant changes in NADO staff slow down growth and constrain program implementation.

In this environment, interviewees stated that political support for anti-doping is extremely limited, adding that sports and anti-doping authorities usually have many parallel roles (e.g., ministers, vice ministers, and department heads acting as presidents of different committees, panels, interest groups, etc.) and responsibilities within the government and sports movement. This situation forces them to prioritize activity and resources based on political agendas.

There are two clear-cut intellectual paradigms in political science to dissect political phenomena: an empirical or positivist approach and a normative approach (Yesnowitz & Gerring, 2006). The empirical method focuses on what is, a facts-based approach. The normative paradigm takes a moral approach, where behavior (what should be) must fit within society's established framework. Jann et al. (2017) believed that NADOs are in an opportune situation within the national political juncture because anti-doping is largely perceived by society as something positive. Therefore, political authorities are indirectly obliged to support the fight against doping. Furthermore, Taylor (1994) suggested that, although we currently live in a predominately positivist world, politics cannot be understood in full without a normative approach; where there is human interpretation, there is a built-in values component. This is

particularly important in anti-doping because the concept of anti-doping is created on the premise that sports must be fair and clean for all (IOC, n.d.).

Main Finding 3: Limited Understanding of the Cultural Context, the Value of Relations, and the Potential Benefits of Sanctions

Main Finding 3 includes the following key findings from Chapter 4: governments and NOCs struggle over control of anti-doping (Finding 4), cultural views affect compliance and perception of anti-doping in Peru and Bolivia (Finding 5), and sanctions may have a positive impact on NADO development and compliance (Finding 6).

Problems Created by the Limited Understanding of the Cultural Context, the Value of Relations, and the Potential Benefits of Sanctions. Participants believed that international anti-doping policies are developed without adequately considering the cultural differences encountered across the world. This, they suggested, has a significant impact on compliance because anti-doping regulation is perceived as decontextualized.

NADO development may be further hindered by the increasingly complex international anti-doping regulation, which in some cases may be scaring away signatories instead of helping them. This situation may be exacerbated by the apparent dispute over control of anti-doping between governments and NOCs, which has been a historical problem in Peru and Bolivia. Participants indicated that the fight over control of anti-doping is a political problem rooted in the deteriorated relationships among the sports movement, anti-doping, and governments.

Participants also suggested that sanctions, whether on athletes or the NADOs, can improve compliance (this is to be understood in the context of culture). The reason for this is that sport and political authorities are susceptible to public opinion and the media. Therefore, participants said authorities would do anything to avoid the political and social unrest that

sanctions would bring to them. In this context, sanctions, when supplementing robust preventions programs, create a unique opportunity for compliance.

Cultural Dimensions Theory: Organizational Performance and the Culture Factor.

From a sociological point of view, the participants in this study indicated that anti-doping in Peru and Bolivia is perceived from two specific viewpoints: one negative and one positive. The negative aspect is related to the nature of current international regulations, as stringent and decontextualized. The positive aspect is tied to the spirit of Olympism, as something worthwhile to society (from an ethical perspective) that needs to be preserved.

The two perceptions are somewhat paradoxical: expecting to protect the spirit of sport without a strong regulatory system to do it is probably impossible. Thus, the premise is that regulation is needed in order to protect sport from the threat of doping. Dissecting the paradox, the problem may not be related to the fact that a regulatory system is needed (e.g., the Code) but to the fact that the approach used to develop and implement it, in the view of the participants, may not be adequately including the cultural differences of signatories encountered across the world.

Geertz (1973) suggested that the concept of culture is not limited to one true, wholly, and everlasting meaning. Instead, like any other symbol, it is context-relative, morally driven, open to interpretation, and constantly changing. In this context, the effectiveness of international policy may be partially dependent on how adequately culture was factored in at the time of its development.

Cultures perceive and respond differently to a variety of aspects of reality; therefore, they are dynamic, changing, and tend to overlap with each other. Although NADOs have a culture of their own, they are also part of the cultures they interact and coexist with (e.g., the NOC,

government, country, etc.). As Gellner (1997) indicated, cultures are “the socially transmitted and sometimes transformed bank of acquired traits” (p. 3). Whether these traits are in part transmitted by endogenous or exogenous phenomena (or a combination of the two), the fact is that they become the makeup of a particular culture.

Considering Hofstede’s (2001) cultural dimensions theory, a framework for cross-cultural communication, society shapes the values and behaviors of people. Hofstede’s dimensions are important to this research because the NADOs in Peru and Bolivia function in the context of the cultural value frameworks of their societies, which can affect the organizations’ performance. For instance, considering Hofstede’s time orientation dimension, participants in the study expressed that planning in Peru and Bolivia is usually developed in consideration of the short term. One of the interviewees, when asked about how she saw the NADO 5 years from now, said, “In 5 years, in 5 years . . . The truth is, I don’t know. I have never thought about that.” Although this assertion could be interpreted in different ways, it is an indicator that, in this particular culture, the things that need to be accomplished in the long term may not have the same relevance as those that need to be implemented in the present and the near future. This has great implications on strategy and policy.

Compliance Theory: The Compliance Approach Must Be Context-Based.

The Pyramid Versus the Inverted Pyramid Models: The Role of Sanctions and Cooperation. Interviewees indicated that sanctions can stir public opinion and the media. This, they believed, has the potential to push (i.e., by means of deterrence) politicians to support anti-doping. Although Parker (2006), Coffee (1981), and Braithwaite (2002) suggested that the effects of policy on behavior may be significantly weakened when deterrence is used as the primary method to achieve compliance, participants suggested it can trigger an initial compliance

commitment, when combined with robust education strategies (Gatterer et al., 2020). While this may not truthfully address the morality of the problem, it can later be improved with further cooperative compliance and prevention strategies.

Braithwaite (2002) stated that policy and regulatory strategies (e.g., compliance) should be implemented using a pyramid model, starting at the bottom with cooperation (preventive) strategies and gradually move towards the top with castigatory (detering) strategies, which should only be considered when the more collaborative approaches have failed. However, in the view of the participants in this study, this approach does not work in their countries, where they believed change can be achieved much faster and more effectively with the threat of sanctions (i.e., using an inverted pyramid model).

The Compliance Motivations Model: Normative, Social, and Calculated. The literature on enforcement suggests there are three key motivations surrounding compliance: normative motivation, social motivation, and calculated motivation (Winter & May 2001). Firstly, normative motivations are related to the moral or ideological structures of individuals, where a person's sense of right and wrong makes them conform with the law independently from the possible sanctions associated with noncompliance (Burby & Paterson, 1993; Gray, 2018). Secondly, social motivation is associated with peoples' desires to garner approval and respect from others in society. Although social motivation may be influenced exogenously (i.e., by external groups such as the media and politicians), it is primarily driven by reputation and social validation (Grasmick & Burski, 1990; Gray, 2018; Krommendijk, 2015). Thirdly, calculated motivation proposes that people comply when the benefits of compliance offset the consequences of noncompliance (Becker, 1968; Gray, 2018).

In this context, Guzman (2008) suggested that deterrence strategies that primarily use sanctions to influence a state party's decisions are an effective means to enhance compliance. This is in line with the interviewees belief that strong sanctions would result in higher compliance.

In addition, the data analyzed yielded that social motivation and calculated motivation (particularly social motivation) may be the main driving influencers of compliance, as participants suggested authorities and management would do anything to avoid the social and political implications of a noncompliance declaration. While we would expect that a normative (endogenous) motivation is ultimately achieved, to date compliance seems to be mostly exogenously motivated (i.e., the media, public opinion, politics, sanctions, etc.).

How to Strengthen Compliance Strategy: Implications for Practice

Although the work of NADOs may be influenced by the culture of the global anti-doping system, they can also be influenced by the culture(s) in which they operate. This, depending on specific circumstances, could affect their performance and compliance (Livermore, 2011). Likewise, compliance by signatories can be made more difficult when their cultural and ideological contexts differ significantly from those of the Code. According to Hofstede (1997), cultures react differently to global dynamics and their repercussions on society. Therefore, organizations with global reach should implement measures that reflect the international diversity of their stakeholders. This would ensure the development of inclusive policies and proportional compliance strategies.

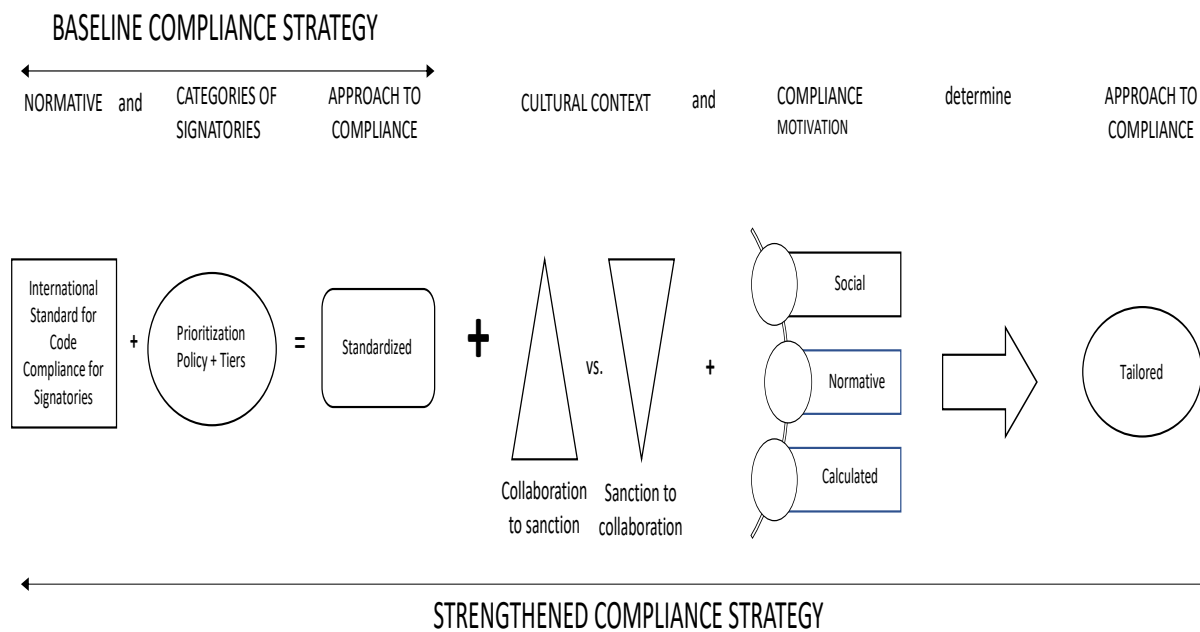
WADA's current approach to compliance, framed under the Code, the ISCCS, and the prioritization policy, including the tier system, represents a positive step toward implementing context-based (i.e., that consider the characteristics of signatories to determine compliance

monitoring activity efforts) compliance measures that are flexible and strategic. These measures, which are identified by objective criteria, are useful when prioritizing monitoring and assessment work, as well as resources, on specific types of signatories.

However, data in this study suggest that the current strategy (i.e., ISCCS + prioritization policy = compliance approach) could be further strengthened if tailored with consideration given to the cultures and compliance motivations of signatories (see Figure 14).

In light of the findings of the strengthened compliance strategy, Figure 14 shows WADA's current approach to compliance, which is referred here as the baseline compliance strategy. The baseline compliance strategy was added to the world anti-doping program in 2018 when the ISCCS and the prioritization policy entered into effect, customizing the compliance approach based on sporting performance of countries and physiological risk of individual sports. This means that countries with stronger performances in sports would be higher up in the tier ranking than those with weaker performances. The ISCCS and prioritization policy state the compliance requirements for each tier (i.e., currently Tier 1, 2, and 3), guiding WADA's Compliance Monitoring Program (CMP) based on priority signatories. WADA reports suggest that, although the CMP is still evolving, it has proven to be an effective tool for monitoring and assessing the compliance of signatories (WADA, 2020a).

The data and theories analyzed in this study suggest, as it is shown in Figure 14, that current compliance efforts could be strengthened by adding two steps to the compliance strategy. Although this may require more resources and capacity to be implemented successfully, it may have the potential to boost compliance. However, a proper risk assessment would be needed to identify and analyze the potential risks associated with implementing the strengthened compliance strategy.

Figure 14*Strengthened Approach to Compliance*

The strengthened compliance strategy adds two steps, or components, to the baseline compliance strategy: (1) cultural context, pyramid versus inverted pyramid approach; and (2) compliance motivations, which are social, normative, and calculated.

In practical terms, this means that after the two first steps (i.e., first ISCCS then prioritization policy) of the baseline compliance strategy have been applied, and before a compliance procedure is started, two extra steps would be added to determine the most tailored compliance approach for a particular signatory (or groups of signatories). The third step would incorporate cultural context, and the fourth step would consider compliance motivations.

The third step is associated with cultural context. Returning to Hofstede's (1997) culture theories, international organizations must implement policies and strategies that reflect the

international cultural diversity of their stakeholders in order to be successful. In this context, the third step would require regulators to

- a. identify the cultural characteristics of countries entering compliance procedures.

There are helpful models to do this (see Hofstede, 2011).

- b. determine whether to use a pyramid (collaboration to sanctions) or inverted pyramid (sanctions to collaboration) compliance model (Braithwaite, 2002), once the cultural context and characteristics of countries have been identified.

As it has been unveiled in this study, participants strongly believed that a sanction to collaboration strategy would be more effective in Peru and Bolivia. This is in line with Hofstede's (2011) power distance index, where a higher degree of the index indicates that hierarchy is established and executed in society without questioning. In these types of societies (i.e., more vertical in nature), people are used to unequal distributions of power. For instance, while a pyramid approach (i.e., collaboration to sanctions) may work in the Netherlands, the United Kingdom, and the United States (Smit, 2012), it may not work in the Arab World, Bolivia, Peru, or Malaysia, where a sanction to collaboration compliance strategy may be more effective initially.

Lastly, once the third step is completed and the compliance model has been chosen (i.e., pyramid or inverted pyramid), Step 4 requires compliance experts to look at the compliance motivations of signatories, particularly the motivations of the authorities. In this context, the consolidation of the NADOs in Peru and Bolivia is affected by the limited anti-doping knowledge and expertise of their authorities. Participants said that although they acknowledge that limited knowledge on anti-doping is a problem of society at large, they believe it is particularly detrimental for NADO compliance when it affects their political authorities. This is a

critical point for compliance because political authorities are responsible for compliance. Authorities are the only ones with decision-making powers, particularly in developing countries such as Peru and Bolivia. Therefore, the fourth step, aimed at looking at compliance motivations, should focus on identifying the compliance motivations of authorities and develop specific strategies to address them (e.g., awareness, relations, and communications strategies).

It is important to note that participants in this study strongly believed that awareness and relations strategies for local authorities are needed to ensure: (a) political buy-in, (b) anti-doping knowledge is increased, (c) relevant stakeholders work together toward achieving common goals, and (d) greater compliance.

In this context, there are three key motivations surrounding compliance: normative motivation, social motivation, and calculated motivation (Winter & May 2001).

First, normative motivations are related to the moral or ideological structures of individuals, where a person's sense of right and wrong makes him or her conform with the law independently from the possible sanctions associated with noncompliance (Burby & Paterson, 1993; Gray, 2018). Following Hofstede's uncertainty avoidance dimension, normative motivations are stronger in some cultures and nations than in others. These cultures (e.g., Japan) tend to be more conservative and structured, whereas other cultures are less conservative and willing to take higher risks, as is the case in Singapore.

Second, social motivation is associated with peoples' desires to garner approval and respect from others in society. Social motivation may be influenced exogenously (i.e., the media and politics) and is primarily driven by reputation and social validation (Grasmick & Burski, 1990; Gray, 2018, Krommendijk, 2015). Participants in the study suggested that authorities are highly motivated by reputation and social validation and would do anything to avoid the social

and political unrest that sanctions would bring them. Therefore, even the threat of sanctions could enhance compliance behavior. This can be explained through Hofstede's (2011) individualism versus collectivism dimension, which looks at the degree that people in society are more or less integrated into groups. According to Hofstede's individualism versus collectivism index, in cultures that tend to be more collectivist, such as both Peru and Bolivia, "transgression of norms leads to shame" and "harmony should always be maintained" (p. 11). Therefore, it is understandable that authorities would do as much as they can to avoid sanctions, considering that they would put their reputation at risk within the group.

Lastly, calculated motivation proposes that people are more likely to comply when the benefits of compliance are greater than the consequences of noncompliance (Becker, 1968; Gray, 2018). In the view of the participants, being compliant in and of itself does not bring any benefits, other than the reputational issues that arise when declared noncompliant. Therefore, calculated motivation, in the context of this research, is directly linked to social motivation, where the motivation to remain compliant is linked to the benefits of avoiding the inevitable social consequences that stem from being declared noncompliant. This type of motivation can also be explained by using Hofstede's individualism versus collectivism dimension.

Therefore, once the appropriate compliance motivations have been identified for a particular signatory about to enter the compliance process, the strengthened compliance strategy would be ready for implementation. This would ensure compliance matters are addressed taking into consideration regulations (i.e., ISCCS and prioritization policy) and the specific characteristics of signatories.

Chapter 6: Conclusions

Research Overview

This study intended to lay the groundwork to better understand the factors that affect NADO compliance in developing countries with the goal of strengthening current compliance and development strategies. In order to do this, two NADOs that have implemented limited anti-doping programs were selected: the NADOs in Peru and Bolivia. Considering the exploratory nature of this research, the basic interpretative design used in this dissertation was the best qualitative methodology to address the research question.

Results of the Study

This study identified three main factors affecting Code compliance of the NADOs in Peru and Bolivia: (1) inadequate anti-doping legislation, resources, and structure; (2) authorities' limited support and understanding of anti-doping and compliance; and (3) limited understanding of the cultural context, the value of relations, and the potential benefits of sanctions.

This study revealed that anti-doping legislation is crucial to the implementation of effective anti-doping programs. At the moment, Peru and Bolivia do not have adequate anti-doping laws. The findings of the study suggest this has negative consequences on development and compliance with the Code. For example, both NADOs have insufficient human and financial resources. Therefore, their capacity to run Code-compliant anti-doping programs is limited.

Furthermore, the consolidation of the NADOs and the implementation of programs is also affected by limited anti-doping knowledge and expertise among the authorities. Although

the lack of anti-doping knowledge is an issue within the societies at large, when authorities are part of the problem, it has a particularly negative effect on NADO operations.

Lastly, political instability, limited support from authorities, and lack of understanding of the cultural context have a negative impact on NADOs' capacity to run effective anti-doping programs and, therefore, be compliant with the Code. The data reviewed indicated that, in some circumstances, cultural variations across nations (Peru and Bolivia in this case) can have an impact on compliance achievement. This is particularly noticeable in countries with political and economic systems, cultures, and principles (ethics) that differ from those that developed the Code under a Western world paradigm.

It is important to highlight that participants believed there is a disconnect between international regulation and the realities of NADOs in developing countries, a dissociation that appears to generate discontent among those who run national anti-doping programs.

Finally, the results of this study suggest that there is a difference in anti-doping development and compliance between the NADOs in Peru and Bolivia across the two levels of assessment conducted in this study: (1) documentary compliance for Peru was 85.71%, and for Bolivia it was 42.85%; and (2) applied compliance for Peru was 65.50%, and for Bolivia it was 24.10%. The countries had overall compliance scores of 75.61% and 33.47%, respectively.

Implications for Policymakers and Practitioners

This study identified, and provided an in-depth understanding of, the factors affecting Code compliance of the NADOs in Peru and Bolivia. It also provided useful insight for practitioners on the types of compliance issues faced by small NADOs in the South American region (and possibly of small NADOs with similar socioeconomic, political, and cultural

backgrounds across the world) and the types of strategies and action plans that can be taken to overcome them.

In this context, the data analyzed suggested that factors that affect compliance are generally heterogenous and context-specific. Therefore, the best way to address them requires the development and implementation of context-based (compliance) strategies (WADA's prioritization policy and tiers system are a good example of this), which can be enhanced by alternating responsive and regulatory compliance tactics that take into account the culture context and compliance motivations of Code signatories. To achieve this, this study proposed a strengthened compliance strategy (see Figure 14 in Chapter 5).

Therefore, the results of the study suggest that the use of theories to develop policy and strategy should be, as much as possible, context-driven to increase effectiveness, particularly when policy and strategy are meant to have global impact, as it is in the case of many international organizations.

Recommendations for Future Research

This study is one of the first to take a qualitative basic interpretative design to investigate the factors that affect Code compliance of two NADOs. Although the results of the study have provided an initial understanding of the matter, they have also unveiled numerous areas in which there is further research potential.

For instance, taking into consideration this study's three main research findings, it would be interesting to first conduct research on the relationship between anti-doping legislation and compliance. It would be interesting to study the relationships between types of anti-doping legislation and degree of compliance by signatories. Second, it would also be interesting to lead a follow-up study to evaluate the degree to which informed versus uninformed management (i.e.,

anti-doping political authorities) affects NADO performance and compliance. Lastly, it would also be beneficial to continue strengthening compliance strategy to investigate the role of culture in attitudes toward compliance across different cultures to ascertain whether there are qualitative differences in the way compliance is perceived and approached in, for example, capitalist, socialist, or dictatorial environments.

The results of these types of studies could be the basis for the development of quantitative tools to assess not only compliance but also NADO performance, another area of anti-doping that requires further investigation and development.

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Appendices

Appendix A

Consent Form

You are being asked to take part in a research study to identify the factors that enable and constrain Peru's and Bolivia's anti-doping programs from achieving compliance with the World Anti-Doping Code (WADC). We are asking you to take part because of (a) your level of anti-doping expertise, (b) political influence, and/or (c) high level of involvement in sports leadership. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

What the study is about: The purpose of this study is to identify and to understand the factors that enable and constrain Peru's and Bolivia's National Anti-Doping Organizations (NADOs) from developing anti-doping programs that meet basic compliance with the World Anti-Doping Code (WADC).

By identifying and thoroughly understanding these factors, including the circumstances that cause them and the possible ways they influence each other, I hypothesize the World Anti-Doping Agency (WADA) and the South America Regional Anti-Doping Organization (SAM RADO) will be able to develop strategies that are more precise at assisting these NADOs throughout the process of developing Code-compliant anti-doping programs.

What we will ask you to do: If you agree to be in this study, we will conduct an interview with you. The interview will include questions about your involvement in sports, your role in anti-doping, your opinions on the topic, how you see your country dealing with this matter, where would you like to see it, what you think are the reasons for your successes and failures in relation to these issues, among others. The interview will take about 60 min to complete. With your permission, we would also like to tape-record the interview.

Risks: The nature of this study does not pose any risks to the subjects other than those minimal risks encountered in day-to-day life. However, should participants find some of the questions about their role in sports and anti-doping to be sensitive, they may choose to skip the question without any further repercussions.

Federal regulations define minimal risk as follows: “The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.”

Therefore, after reviewing federal regulations and comparing them to the nature of this research and the research methods, the researcher concludes that participants will undergo no risk of physical discomfort, psychological or social distress, economic loss, legal or criminal prosecution, and invasion of privacy or loss of confidentiality.

Compensation: This study will not provide any form of compensation to the subjects. Taking participation in this study is ad honorem.

Your answers will be confidential. The records of this study will be kept private. Research records will be kept in a locked file; only the researcher will have access to the records. If I record the interview, I will destroy the tape after it has been transcribed, which I anticipate will be within 4 months of its taping.

Taking part is voluntary: Taking part in this study is voluntary. You may skip any questions that you do not want to answer. If you decide not to take part or to skip some of the questions, it will not affect your current or future relationship with the researcher. If you decide to take part, you are free to withdraw at any point throughout the interview process.

If you have questions: The researcher conducting this study is Francisco Leon Cannock. Please ask any questions at your earliest convenience. If you have questions later, you may message me at [REDACTED]. If you have any questions or concerns regarding your rights as a subject in this study, you may contact the University of the Incarnate Word Institutional Review Board (IRB) at wandless@uiwtx.edu or access their website at <http://www.uiw.edu/orgs/research/compliance/irb.html>.

You will be given a copy of this form to keep for your records.

Statement of Consent: I have read the above information and have received answers to any questions I asked. I consent to take part in the study.

Your Signature _____ Date _____

Your Name (printed) _____

In addition to agreeing to participate, I also consent to having the interview tape-recorded.

Your Signature _____ Date _____

Signature of person obtaining consent _____ Date _____

Printed name of person obtaining consent _____ Date _____

This consent form will be kept by the researcher for at least 3 years beyond completion of the study.

Appendix B

Interview Questions for Batches 1 and 2

Batch 1: Semistructured interview

Stage 2 of the research process

1. Objectives:

- Primary: Identify the factors that affect compliance with the World Anti-Doping Code of the NADOs in Peru and Bolivia.
- Secondary: Develop an initial understanding of compliance in anti-doping.

2. Verbal consent:

- After having read the objectives of this interview and having read and signed the study's consent form, would you like to participate in this interview?

3. Interview questions:

- Could you please define for me compliance in anti-doping?
- How is compliance monitored?
- How is the effectiveness of WADA's compliance program evaluated?
- What is noncompliance?

Batch 2: Semistructured interview**Stage 4 of the research process****1. Objetivos:**

- **Primario:** Descubrir cuáles son los factores que afectan el cumplimiento del Código de las Organizaciones Nacionales Antidopaje (ONAD) de Perú y Bolivia.
- **Secundario:** Entender cuál es la percepción de los participantes en relación con los factores que influyen el cumplimiento.

2. Consentimiento verbal:

- Después de haber revisado los objetivos de esta entrevista y habiendo leído y firmado el Formulario de Consentimiento, ¿le gustaría participar en esta entrevista?

3. Información de contexto:

- **Explicación de motivos:** La razón de esta investigación se origina en la necesidad de desarrollar estrategias de desarrollo y cumplimiento en materia antidopaje que estén mejor alineadas al contexto de los países y sus ONAD. Para lograr esto, es necesario entender, con mayor profundidad, las distintas realidades en que se desarrolla el antidopaje a nivel internacional. Esta información ayudará a que se implementen estrategias efectivas que permitan asistir a los signatarios a desarrollar programas antidopaje que cumplan con los requisitos del Código.
- ¿Podría, por favor, contarme un poco de usted? Por ejemplo: formación académica y/o profesional, trabajo actual y cómo llegó a él, trabajos anteriores, experiencias importantes en el deporte y/o antidopaje. Siéntase libre de profundizar donde le parezca.

4. Experiencia en antidopaje:

- ¿Me podría contar cuál es su rol en antidopaje en Bolivia/Perú?

- Hábleme de su experiencia en antidopaje en el país. De ser posible, cuénteme de su experiencia a través de ejemplos.
- ¿Cómo ve el futuro del antidopaje en su país? Por favor, explique su respuesta.

5. Estatus de la ONAD

- Hábleme del trabajo de la ONAD. Siéntase libre de empezar por donde mejor le parezca.
- En su opinión, ¿cuáles son los desafíos más grandes para la ONAD en su país?
- ¿Qué se necesitaría para que el trabajo de la ONAD en su país sea más efectivo?

6. Dopaje, antidopaje, cultura y sociedad

- ¿Qué cree usted que piensa la gente (no deportistas y su entorno) en su país en relación con el dopaje en el deporte? Por favor, explique su respuesta.
- ¿Debería existir el antidopaje? Por favor, explique su respuesta.
- ¿Qué piensa usted de la AMA? Por favor, explique su respuesta.
- ¿Cuál es su percepción de la ORAD SAM? Por favor, explique su respuesta.

7. Antidopaje, política y relaciones internacionales

- En su experiencia, ¿qué prioridad tiene el antidopaje en las agendas de los que lideran el deporte en su país?
- ¿Cómo cree usted que el tema de cumplimiento del Código es percibido por sus autoridades?
- El Código es la ley internacional contra el dopaje en el mundo, esto ha sido aceptado por los líderes de su país al firmar la Convención de la UNESCO contra el Dopaje en el Deporte. ¿Cuál es su opinión sobre esto y, en líneas generales, cuál es su opinión sobre el tener que aplicar una reglamentación internacional dentro de su país?

8. Otros:

- ¿Le gustaría agregar algún comentario?