The role of Reward and Punishment as Control mechanisms for promoting Good Governance Compliance in Nonprofit Sport Organisations

By

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Abstract

There has been a global increase in institutional pressure to improve governance standards within national sport federations (NSFs), particularly given their modernisation and professionalisation. However, due to governance failures, many NSFs across the globe have recently experienced a significant 'legitimacy gap'. This issue is not confined to a specific region or sport but is a widespread concern affecting the credibility and trust in NSFs worldwide. The result has been that several governments have taken steps to 'codify' good governance in order to enhance organisational processes and behaviours within the NSFs. To encourage compliance with these good governance codes, some governments have conditioned NSF funding on adopting these codes' principles. In scenarios where adoption of the code is associated with funding, it is only done by penalizing non-compliance; therefore, a 'stick' is used to promote good governance. The current literature on sport governance has not addressed whether a carrot approach, i.e. rewarding compliance, is also an effective mechanism for achieving compliance. Against this global backdrop, this doctoral study was set to examine whether NSFs are more likely to follow the code principles if rewards and/or punishments are applied. This is further examined in conjunction with the certainty that the funders of these NSFs (who have technically issued the codes) will verify whether these organisations have complied with the code's principles.

The study adopts a multi-theoretical approach to provide a comprehensive framework for understanding governance dynamics within NSFs. Neo-institutional theory and resource dependence theory offer macro-explanatory power, while compliance theory and general deterrence theory guide the research design and methodological tools. The study examines the relationships among coercive control, remunerative control, and certainty of control, shedding light on the mechanisms influencing compliance with governance codes in NSFs.

Philosophically grounded in Burell and Mogan's functionalist paradigm, a quasi-experimental design was employed. The three governance-enhancing factors examined in this study (punishment, reward, and certainty of control) were administered at two levels, using a 2 x 2 x 2 mixed-design questionnaire for each level. The first factor, *punishment*, was measured as 'severe' and 'non-severe'. The second factor, *reward*, was measured as 'high' and 'none'. The third factor, *certainty of control*, was measured as 'high (with) control' and 'low (without) control'. Based on this design, eight scenarios were developed, four for high (i.e., with) and four for low (i.e., without) certainty of control, to investigate the main impacts and interactions between these three factors. The research was conducted in NSFs in Cyprus, with all 61 active NSFs invited to participate. The board members of these NSFs were asked to respond to an anonymous online questionnaire. A total of 223 responses were received, representing approximately 40% of the number of NSFs' board members in Cyprus.

Five main findings serve as take-away messages. First, compliance intention increases as control certainty increases. Consequently, regardless of whether a reward, punishment, or both are introduced, board members within NSFs are more likely to comply when they feel monitored. However, the impact of control diminishes gradually with the introduction of rewards and/or punishments. Second, in the absence of any control, punishment threats and reward incentives yield a similar level of compliance intention when used separately. This could suggest that in the absence of monitoring, the potential outcomes of NSFs' behaviour drive their compliance intention rather than external influences Third, in the presence of control, the threat of punishment (without reward) leads to a higher compliance intention than the reward incentive (without punishment). This implies that the fear of negative consequences is a more potent motivator for compliance than the promise of positive outcomes. Fourth, no matter the level of control, the intention to comply is

almost the same when both punishment and rewards are introduced. This indicates that both positive and negative consequences can effectively motivate compliance, thus reducing the need for external control. Finally, there is a negative correlation between board membership duration and the willingness of board members to adhere to the provisions of a code. Generally, as board members spend more time on the NSF board, their inclination to comply with the code decreases.

Against all this, the present thesis' theoretical contribution is threefold. First, building on the theoretical approaches of neo-institutional theory and resource dependency theory, it introduces and empirically applies compliance and deterrence frameworks to the sport governance domain and to the debate over whether (and how) codifying governance is an effective method of increasing governance standards. Second, this study contributes a theoretical perspective in implementing good governance by emphasizing reward as a plausible strategy for encouraging NSFs to adopt good governance principles. Third, the thesis suggests that implementing severe punishment in conjunction with high levels of reward has a significant joint effect on compliance intention, resulting in a reduction of the need for explicit control strategies.

From a practical perspective, this thesis could have many implications for policymakers and governing bodies, helping them develop comprehensive strategies to promote compliance with good governance principles. First, codes should take the form of non-binding recommendations with clear guidance on the desired outcomes and policy objectives, thereby reducing the scope for discretion in the implementation process. Second, it is crucial to conduct thorough assessments (control checks) to ensure their compliance with the code principles. Self-assessment alone is not sufficient. Third, policymakers should use punitive mechanisms as a primary means of encouraging compliance. If this approach is to be effective, however, it must be implemented early on and must be severe from the outset. Fourth, aside from punitive measures, rewards should also

be employed to encourage compliance. Lastly, in light of the previous two, policymakers can mitigate the need for excessive control by combining punishment with reward.

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Vassos Koutsioundas

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1.1 Introduction to the Research Topic

"Sports has the power to change the world. It has the power to inspire, it has the power to unite people in a way that little else does. It speaks to youth in a language they understand. Sports can create hope, where there was once only despair. It is more powerful than governments in breaking down racial barriers. It laughs in the face of all types of discrimination." - Nelson Mandela, 2000

Emerging from this inherent authority, as articulated by Nelson Mandela (South African political leader), sport organisations, primarily the national sport federations (NSFs), entrusted with the stewardship of sports, possess a distinctive autonomy grounded in their roles and societal attributes. Sport's capacity to contribute directly or indirectly to vital areas such as health, education, social inclusivity, and culture has conferred upon sport organisations the prerogative to autonomously structure, govern, and, in a broader sense, oversee themselves.

In recent years, however, many sport organisations – at both the international and national levels – have faced a 'legitimacy gap' due to scandals related to issues of corruption, mismanagement, fragmented communication, lack of oversight and distrust of the behaviours of key 'actors' of governance, thus calling the autonomy of these organisations into question. In essence, what is causing this 'legitimacy gap' within sport organisations is that they have not been able to adequately cope with the challenges brought about by the increasing commercialisation and the resulting complexity of sport, which is reflected in the quality of governance of the sport organisations themselves (Anagnostopoulos et al., 2023; Geeraert, 2022a).

"Corruption in sport is a cancer that needs to be eradicated. It erodes the very essence of what sports should be – fair competition, integrity, and respect for the rules." - Ban Ki-moon, 2013.

Ban Ki-moon's (former UN-General Secretary) emphatic statement underscores the gravity of the issue. It has galvanised governments, athletes, sponsors, and even the sport organisations themselves to question the overall mechanisms and organisational behaviour seen in the wider sport ecosystem. In 2015, *The Economist* referred to this as 'the inevitable need for sport to clean up its act' ('Corruption beyond FIFA: Good money, bad money | The Economist', 2015).

Studies have highlighted that pressures outside sport may be the best way to improve sport organisations' governance practices and performance (Geeraert et al., 2014). Increasing attention is being given to the influence of governance principles and guidelines in sports, especially the role of national sports agencies in influencing their adoption by NSFs, as well as their influence on the behaviour of individual directors (Tacon & Walters, 2016; Walters & Tacon, 2018). As such, several governments (in countries such as Cyprus, the UK, New Zealand, Australia, Netherlands, Belgium, and Poland) have taken the step of 'codifying' good governance by issuing good governance codes (Codes) with a view to improving the organisational processes and behaviour within the NSFs (Parent & Hoye, 2018); that is, the governing bodies at the national level responsible for steering their own sport(s).

1.2   Research Problem and Purpose

There is no doubt that sport is a complex and important social and economic phenomenon that holds a multifaceted and paramount position within society, influencing both its social fabric and economic landscape. Given its far-reaching impact, it is not unexpected that sport intersects with nations' strategic objectives. Consequently, it is unsurprising that political involvement in sport governance becomes a rational course of action. In their pursuit of political goals through sport, national governments typically employ a range of tactics, often manifesting as moral suasion

or the implicit threat of regulatory measures. In practice, these strategies often manifest as the leveraging of financial support.

Indeed, to encourage the widespread adoption of good governance codes within the realm of sport, several governments have established a direct link between the allocation of financial resources and adherence to the principles outlined in these codes. Essentially, this linkage has led to a conditional approach: compliance with these codes becomes a prerequisite for receiving financial support. In practice, this approach leans more towards the use of punitive measures, employing a proverbial "stick" to incentivise the acceptance of good governance principles or punish non-adherence to them.

Yet, despite these well-established practices, the existing body of literature on sport governance has thus far neglected to thoroughly explore the effectiveness of an alternative approach – the 'carrot' strategy. This approach would entail offering rewards as incentives for compliance, rather than relying solely on punitive measures. In essence, this raises a critical question: is a system that emphasises the benefits and incentives for adhering to good governance principles more effective in promoting compliance within the sport sector? This intriguing query remains a significant gap in the current discourse on sport governance, warranting further exploration and analysis.

1.3   Scope and Boundaries

Against all this, the present doctoral study undertakes a comprehensive exploration of a fundamental question: are National Sport Federations (NSFs) more inclined to adhere to the guiding principles of the Code when faced with penalties for noncompliance, or do they demonstrate better adherence when offered incentives for compliance? This inquiry delves deep

into the realms of behavioural economics and governance within the sport domain, seeking to unravel the most effective approach in promoting ethical conduct and good governance.

The impact of employing a "stick" and/or "carrot" approach will be meticulously scrutinised. In one scenario, the "stick" approach to noncompliance involves consequences or punishment. Conversely, the "carrot" scenario, the provision of rewards or benefits to NSFs demonstrates a robust adherence to the principles outlined in the Code. This dichotomy of incentives versus repercussions forms the crux of the present thesis, shedding light on the psychological and practical factors that drive compliance within sport organisations.

Furthermore, the study goes beyond the traditional binary analysis of rewards and punishment. It introduces an additional layer of complexity by considering the role of certainty of control in the equation. Specifically, the study examines how the certainty of control (as potentially exercised through monitoring or audit visits) by organisations funding these NSFs, which are also responsible for issuing the Codes, influences the compliance landscape. This dimension adds depth to the analysis, as it recognises that the mere existence of compliance mechanisms may not be sufficient; rather, it is the certainty of accountability that may wield the most substantial influence in shaping behaviour.

1.4   Research aim

The present doctoral study embarks on a multifaceted exploration into the dynamics of compliance within NSFs, providing an understanding of how the interplay between incentives, punishments, and assurances of oversight can affect the governance landscape in the world of sport. Ultimately, the outcomes of this research endeavour can contribute to the broader mission

of upholding the integrity and fairness of sport worldwide by influencing and enhancing strategies for promoting ethical conduct, transparency, and accountability within sport organisations.

More specifically, it aims to support and guide national sport governing bodies such as sport ministries in introducing Codes for National Sports Federations (NSFs) to follow. It examines whether a "stick and/or carrot" approach (punishment and/or reward) is more effective in promoting the adoption of the Code's principles. Additionally, it provides insights on whether national agencies should monitor NSFs for compliance with the Code or if self-regulation is sufficient.

1.5   Research hypotheses

To address these inquiries, the current study is structured around six hypotheses, establishing a dynamic relationship between punishment, reward, and the certainty of control.

__Hypothesis 1__: The extent to which resources (funding) are deprived from NSFs because of not compliance with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.

__Hypothesis 2:__ The level of reward for complying with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.

__Hypothesis 3:__ Certainty of control will positively influence the intention to comply with the principles of the good governance code (Code).

__Hypothesis 4:__ The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of punishment contexts in high certainty of control environments is smaller than in low certainty environments.

__Hypothesis 5:__ *The impact of reward on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of reward contexts in high certainty of control environments is smaller than in low certainty environments.*

__Hypothesis 6:__ *The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by reward: the difference in impact on intention to comply between mild and severe levels of punishment contexts in low levels of reward environments is greater than in high levels of reward environments.*

1.6   Structure of the thesis

The thesis is organised into eight chapters. This introductory chapter (**Chapter One**) has set the scene in which the study unfolds.

Chapter Two places the research within the scholarly domain of sport governance following the three interrelated concepts of sport governance as proposed by Henry and Lee, (2004), i.e., systemic, organisational, and political. It also outlines the theoretical underpinnings of compliance and deterrence through the lenses of Institutional Theory and Resource Dependence Theory (RDT) helping to formulate the six hypotheses presented above.

Chapter Three introduces the methodology applied in this thesis. It commences by elucidating the underlying philosophical perspectives that guide this research, notably embracing the functionalist paradigm. Subsequently, the chapter expounds upon the rationale underpinning the chosen methodological approach, which is a quantitative strategy. The objective of this chapter is to clarify the reasoning behind the selection of a large-scale survey methodology using a scenario-based questionnaire.

Chapter Four outlines the steps taken to develop the key data collection tool of this research, which is the anonymous online questionnaire. It describes the steps that were taken to develop a rigorous scale (item development, scale development, and scale evaluation).

Chapter Five delves into the analysis of the gathered data and the examination of the formulated hypotheses. Initially, it investigates the influence of respondents' profiles on their intention to comply with a Code through the implementation of a one-way ANOVA with a between-subjects factor. Subsequently, it proceeds to assess the hypotheses established in Chapter Two. These hypotheses are subjected to testing via a repeated-measure ANOVA with a between-subjects factor. To ensure the validity of the analysis, Box's test is employed to evaluate the equality of variance-covariance matrices among the difference scores of the two control groups, and multivariate tests are conducted as well.

Chapter Six presents the thesis's findings. By integrating institutional theory and resource dependency theory (RDT), this study offers empirical insights into the determinants influencing the compliance intentions of NSFs. These theoretical lenses illuminate the intricate interplay between NSFs and their external milieu, underscoring the pivotal roles of institutional pressures and resource dependencies in shaping their conduct and decision-making procedures.

Chapter Seven offers a concise summary of the research and unveils its contributions, spanning the theoretical, methodological, and empirical realms. It also underscores the policy and practical ramifications derived from the study's outcomes. Finally, the chapter culminates with a reflection on the study's limitations and potential avenues for future research.

Chapter Eight serves as the afterword of this research work, offering my personal reflection on the journey embarked upon throughout this scholarly endeavour - an expedition toward my own metaphorical "Ithaka."

Chapter 2

Theoretical Underpinnings and Literature Review

2.1 Introduction and purpose

This chapter provides an overview of the literature in the area of sport governance by reviewing two axes: **governance concepts** and **theories** influencing sport governance scholarship. As such the theoretical underpinnings of sport governance are examined and discussed. Specifically, the focus will be on two key concepts: compliance and deterrence.

2.2 The concept of Governance

The concept of governance is not new. In the late nineteenth-century and the opening decades of the twentieth century a "managerial revolution" took place, and sophisticated managerial hierarchies and an increasingly professional ethos among senior executives of prominent corporations were developed (Chandler, 1977). However, governance as an explicit field of study has only emerged in the last four decades, mainly stemming from significant corporate failures. More specifically, in the late 1980s and early 1990s, in the corporate world concern rose "…. about standards of financial reporting and accountability, heightened by BCCi[1], Maxwell and the controversy over directors' pay, ... has kept corporate governance in the public eye" (Cadbury, 1992, p. 9). This attention eventually led to the introduction and continuous development of corporate governance codes across the world. The initial milestone in this development was the Cadbury Code, introduced in the UK in 1992 and named after the Committee's chair. Subsequently, similar regulatory measures, such as the Sarbanes–Oxley Act of 2002 in the USA, were implemented. Since then, corporate governance codes have become a standard feature of corporations, especially public ones, around the globe. Despite its universal acceptability and almost mandatory application, there is still no single definition of corporate

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[1] Bank of Credit and Commerce international (BCCi) was a major international bank founded in 1972, its collapse in 1991 is considered the biggest bank fraud in history.

governance. Looking at the origin of the word governance, Rober Tricker in 1984, in what was perhaps one of the first books to feature the title "Corporate Governance" (Corporate Governance: Practices, Procedures and Powers in British Companies and their Boards of Directors) stated that:

"The origins of the word governance can be found in the Latin 'gubernare' meaning to rule or to steer, and the Greek Κυβέρνησις which means . . . (steering, eds.). Norbert Wiener used the Greek root as the basis for cybernetics - the science of control in man and machine. The idea of steersman - the person at the helm - is a particularly helpful insight into the reality of governance" (Tricker, 1984, p. 9).

Various definitions can be found when examining the literature on corporate governance, highlighting the diverse perspectives on the subject. These definitions can generally be classified into two primary schools of thought: narrow and broad. The critical distinction between these two definitions lies in their interpretation of the firm's obligations.

The first (narrow) follows the logic of the Cadbury report, where the firm's obligation is to serve its shareholders and aim for shareholder wealth maximisation.. In the Cadbury report, corporate governance is defined as "the system by which companies are directed and controlled" (Cadbury, 1992). It further emphasises the relation between the board of directors and the shareholders, putting the onus for the company's governance on the directors "Boards of directors are responsible for the governance of their companies" but asking the shareholders "to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place" (Cadbury, 1992). This definition was widely adopted in the years following the Cadbury report.   Shleifer and Vishny, in their "Survey of Corporate Governance" in 1997, stated, *"Corporate Governance deals with ways in which suppliers of finance to corporations assure themselves of getting a return on their investment"* (Shleifer & Vishny, 1997, p. 737).   The

theoretical framework of this understanding of governance stemming from the classical approach of agency theory described much earlier by Jensen and Meckling when referring to the "separation of ownership and control" in their seminal work on the "Theory of the Firm: Managerial Behaviour, Agency Costs And Ownership Structure" as early as 1976 (Jensen & Meckling, 1976). This approach exerted a global influence, as demonstrated by the fact that most stock markets around the world now require listed companies to issue and adhere to a corporate governance code as a mandatory obligation.

Despite their initial acceptance, particularly in the Anglo-Saxon world, corporate governance codes based on agency theory have faced increasing criticism in recent times. The traditional narrow approach, which primarily prioritises the firm's obligations to shareholders and the maximisation of shareholder value, has been challenged by the broader definition of corporate governance. This broader perspective recognises the firm's responsibilities towards a range of stakeholders, including shareholders, employees, customers, communities, and the environment.

Authors such as Freeman have advocated for a more inclusive approach and have supported the "Stakeholder Theory" and the need for *"managers to consider the interests of stakeholder groups beyond those of shareholders in making important decisions that materially affect the future of the corporation"* (Freeman *et al.*, 2010, p. 164). Freeman defined *"A stakeholder in an organisation is (by definition) any group or individual who can affect or is affected by the achievement of the organisation's objectives"* (Freeman *et al.*, 2010, p. 207). As such, Freeman defined corporate governance as the firm itself being a grouping of stakeholders, and the firm's purpose should be to manage their interests, viewpoints, and needs.

This broader approach to corporate governance has found greater acceptance in countries across continental Europe and Japan, and it is gradually gaining global recognition. In line with

societal shifts, there is a growing belief that corporations have a broader responsibility beyond their shareholders, extending to society as a whole. This shift in perspective has given rise to the concept of Corporate Social Responsibility (CSR), which emphasises the duty of corporations to consider the well-being of multiple stakeholders.

The endorsement of this notion can be observed in the G20/OECD Principles of Corporate Governance, where it is stated that: "Corporate governance involves a set of relationships between a company's management, its board, its shareholders, and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined" (*G20/OECD Principles of Corporate Governance*, 2015, p. 9).

Following this The Chartered Governance Institute[2] states "Corporate governance is the system of rules, practices, and processes by which a company is directed and controlled …. so that the interests of all stakeholders (shareholders, employees, suppliers, customers, and the community) are balanced." This (governance) needs to be distinguished from management. Tricker (1984) explained that the role of management is to ensure that business operations run efficiently and effectively. This involves the coordination of processes of product planning, design, marketing, production, and distribution. On the other hand, governance is not concerned with the day-to-day operations of an organisation, as its focus is of a higher order. In Tricker's words, "If management is about running a business, governance is about seeing that it is run properly" (Tricker, 1984, p. 7). Both "Agency Theory" and "Stakeholder Theory" will be further analysed under the lens of good governance in sport in section 2.2.3 of this chapter.

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[2] https://www.icsa.org.uk/about-us/policy/what-is-corporate-governance

Drawing on the above concepts of governance stemming mainly from the governance of corporations, one can enrich the discussion and talk not only about "governance" but also about the "modes of governance" (Treib et al., 2007) and the relationship between state intervention and societal autonomy. Where in our case the issue of a good governance code (Code) by a public body, which is funding most of its national sport federations (NSFs), and to the extent to which is using a "stick or carrot" approach to achieve the implementation of such a Code by the NSFs can be considered as a threat to the autonomy of the NSFs. In their seminal work Treib et al. (2007) presented a conception of governance that encompasses institutional properties (**polity**), actor constellations (**politics**), and policy instruments (**policy**). This multi-dimensional approach provides a deeper understanding of the complex dynamics and interactions involved in governance processes.

The concept of institutional properties, or **polity**, refers to the formal and informal structures that shape the governance framework. It encompasses the legal and regulatory systems, organisational arrangements, decision-making procedures, and norms that govern the behaviour of actors within a given context. Researchers and policymakers gain insights into the rules, power dynamics, and overall framework that influence governance outcomes by analysing institutional properties.

Actor constellations, or **politics**, focus on the various actors involved in the governance process. This includes individuals, organisations, and institutions with a stake in decision-making and policy implementation. Understanding the relationships, interests, and power dynamics among these actors is crucial for comprehending the complexities of governance. Researchers can uncover the driving forces and dynamics that shape governance outcomes by examining the interactions, alliances, conflicts, and bargaining processes among actors.

Policy instruments, or **policy**, refer to the tools, mechanisms, and strategies used to achieve governance objectives. These instruments range from laws and regulations to non-binding guidelines, incentives, and voluntary initiatives. Examining the policy instruments provides insights into the choices made by policymakers in designing and implementing governance strategies. By analysing the effectiveness, appropriateness, and impact of different policy instruments, researchers can evaluate their role in shaping governance processes and outcomes.

Their analysis focuses explicitly on the policy dimension of governance, aiming to classify and categorise four different modes of governance based on their policy properties.

The first mode identified in their typology is **coercion**, which is characterised by the use of binding legal instruments that prescribe detailed and fixed standards. In this mode, implementation has limited flexibility because the standards are explicitly defined and leave little room for interpretation. Coercion relies on enforcing laws and regulations to ensure compliance with governance standards.

The second mode is **voluntarism**, which contrasts with coercion as it is based on non-binding instruments. Voluntarism sets broad policy goals and encourages actors to work towards achieving these goals without specifying concrete reforms or measures. This mode allows for greater flexibility in implementation, as it gives actors more freedom to determine how to achieve the desired outcomes within the given policy goals.

The third mode, **targeting**, lies between coercion and voluntarism. It involves non-binding recommendations that are more detailed compared to voluntarism. Targeting provides more precise guidance on the desired outcomes and policy objectives, leaving less room for discretion at the implementation stage. While it allows for some flexibility, it still provides a more defined action framework than voluntarism.

The fourth mode identified is **framework regulation**, which maintains a binding legal framework but offers more flexibility in implementation compared to coercion. Framework regulation, unlike coercion, allows for some discretion in the way regulations are implemented. This mode provides a balance between legal obligations and implementation flexibility, giving room for contextual adaptations while ensuring compliance with governance standards.

The typology developed by Treib et al. can be of great relevance to national sport agencies seeking to promote the adoption of governance codes within National Sport Federations (NSFs). Understanding the different modes of governance allows these agencies to tailor their approaches and strategies accordingly. Depending on the specific context and goals, they can choose between coercion, voluntarism, targeting, or framework regulation as the most suitable mode to encourage compliance and improve governance within NSFs.

The fundamental question at hand is determining the most effective mode of governance in the policy dimension to facilitate the adoption of a Code: coercion, voluntarism, targeting, or framework regulation. This critical inquiry serves as the primary focus of this research, aiming to illuminate the optimal approach and will be revisited as a key aspect of the thesis' conclusions.

By exploring the effectiveness of different governance modes, this study seeks to shed light on the preferred strategy for promoting the adoption of a Code and the comparative effectiveness of using a "stick" (coercion) or "carrot" (voluntarism) approach.

2.3   Sport Governance

At the begging of this chapter, it was noted that governance as an explicit field of study has only emerged in the last four decades. The area of study of sport governance has an even more recent history. As Shilbury and Ferkins state in the introduction of their book "Routledge Handbook of Sport Governance", the first sport governance-related article was published in the

Journal of Sport Management in 1996 (Ferkins & Shilbury, 2020). Furthermore, Dowling et al., in their scoping review (Dowling et al., 2018), stated that of the 243 articles published, 18 were published between 1982 and 2003, whereas 225 were published between 2004 and 2016. Certainly, in a manner similar to corporate governance, it was once again the occurrence of failure that served as the primary catalyst for the increased interest in scholarship related to sport governance. The most significant ones have been the highly mediatised ethical scandals enveloping Fédération Internationale de Football Association (FIFA) and International Association of Athletics Federations (IAAF, now 'World Athletics') in 2015 (Chappelet & Mrkonjic, 2019).

In reviewing sport governance literature first, a definition of sport governance will be offered and then the relevant literature will be presented through a thematic approach by following two axes: a) **Concepts of Governance** following Henry and Lee's (Henry & Lee, 2004) systematic, organisational, and political concepts and b) *Theories* influencing sport governance scholarship.

2.3.1 Defining sport governance

Rosenau, in his work "Governance in the Twenty-first Century" stated, "The process of governance is the process whereby an organisation or society steers itself, and the dynamics of communication and control are central to that process" (Rosenau, 1995, p. 14). Guided by this Shilbury et al. (2013) concluded that "sport governance" refers to both the *governance* of an organisation and the notion of *governance across* a sport system. This dual interpretation of sport governance is reflective of how the academia of sport governance has evolved. Discussions range from the micro level of specific sport organisations and the issues surrounding them, ranging from the operations of the board to athletes sanctioning to the macro level and the interaction of national and supranational institutions with national and international sport organisations. This plethora of issues is evident in the way various scholars define and refer to sport governance. In their recent

scoping review Dowling et al. (Dowling et al., 2018) comment that the definition of the concept of governance remains problematic and they offer no less than seven different definitions of sport governance. These are presented in Table 2.1. Of course, this list is not exhaustive. A prominent definition that is missing from this table is the definition that the Expert Group set up by the member states of the European Union. After the Lisbon Treaty, the European Union acquired a sphere of influence in sports policy, often referred to as "soft competence". Within this context, as part of the EU Work Plan for Sport 2011-2014, the EU Expert Group on Good Governance was established, among other initiatives[3]. In September 2013, the expert group issued its second deliverable, "Principles of good governance in sport". For its deliverable, the Expert Group adopted the definition of good governance in sport as presented in Table 2.1. Since then, this definition has been adopted by several national agencies that have issued codes of good governance for their national sports systems, such as Cyprus[4] (Cyprus Sport Organisation, 2018) and Poland (Polish Ministry of Sport and Tourism, 2017). Besides this definition, Table 2.1 is further enriched with definitions from the Flemish sports agency and Sport and Recreation New Zealand.

The diversity of the various definitions indicates the broad spectrum that the sport governance literature covers, and the different emphases placed by the various authors. Despite this, most of the definitions of "Sport Governance", as presented in Table 2.1 are in cohort with Rosenau's (Rosenau, 1995) and Rhodes' (Rhodes, 1997) use of the metaphor of "steering" as opposed to "rowing". In almost all definitions presented (except for the Flemish), the concepts of "Strategic direction" or "Policy Setting" are present, concepts that are associated with this higher-

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[3] The author was a member of this Expert Group.
[4] The author was member of the ad hoc committee and consultancy team for the development of the first ever Code of good governance for the national sport federations in Cyprus.

level steering function, i.e., providing guidance and direction in contrast to the day-to-day operations related to management referred to as rowing. However, it's worth noting that, contrary to the author's perspective, the function of management is explicitly incorporated into two of the provided definitions, namely those of O'Boyle (2012) and the Australian Institute of Sport. This emphasis on steering is also in line with the *Political* and *Organisational* governance concepts of Henry and Lee (Henry & Lee, 2004), which are the main concepts of governance that research is associated with. Furthermore, the diversity of definitions by various authors and the different emphasis points indicates the broad spectrum that sport governance literature covers.

Table 2.1: Sport Governance Definitions

Author	Definition	Concepts / Focus/ Emphasis
Sport and Recreation New Zealand (2004) in (Mrkonjic, 2016)	The process by which the board sets **strategic** direction and priorities, sets policies and management **performance** expectations, characterises and manages risks, and monitors and evaluates organisational achievements in order to exercise its accountability to the organisation and **owners**	– Strategic direction – Performance monitoring – Reporting to stakeholders
Ferkins et al., (2005)	"the responsibility for the **functioning and overall direction of the organisation** and is a necessary and institutionalised component of all sports codes from club level to national bodies, government agencies, sport service organisations and professional teams around the world" (p. 245).	– Strategic direction
Council of Europe, 2005, in Mrkonjic (2016)	A complex network of **policy measures** and private regulations used to **promote integrity** in the management of the core values of sport such as democratic, ethical, efficient and accountable sports activities.	– Policy setting – Promotion of integrity
Hoye and Cuskelly (2007) in Dowling et al. (2018)	"the exercise **of power and authority** in sport organisations, including policy making, to determine **organisational mission**, membership, eligibility, and regulatory power, within the organisation's appropriate local, national or international scope" (p. 5).	– Policy setting – Strategic direction
Sawyer, Bodey, and Judge (2008) in Dowling et al. (2018)	"how governing bodies and **directed and controlled**. The governance mechanism (e.g., formal documents, organisational structure) specifies how rights, authority, and responsibility are distributed among the participants in order to monitor performance and achieve goals" (p. 11).	– Strategic direction – Policy setting
O'Boyle (2012)	"the process of **granting power, verifying performance, managing**, leading and/or administrating within an organisation" (p. 1).	– Policy setting – Performance monitoring – Operational dimension
EU Expert Group Good Governance (2013)	The framework and culture within which a sports body **sets policy**, delivers its **strategic** objectives, engages with **stakeholders**, monitors **performance**, evaluates, and manages risk and reports to its constituents on its activities and progress including the delivery of effective, sustainable and proportionate sports policy and regulation.	– Policy setting – Strategic direction – Performance monitoring – Reporting to stakeholders

Table 2.1: Sport Governance Definitions

Author	Definition	Concepts / Focus/ Emphasis
King (2014) in (Dowling et al., 2018)	Distinguishes between **political and administrative governance**: Political governance focuses "on how power is exercised, who has influence, who decides and who benefits from decisions and action" (p. 5). Administrative governance "where governance is fundamentally concerned with: setting the rules and procedures for making organisational decisions; facilitating effective, entrepreneurial and prudent management; determining the means of optimizing performance; ensuring statutory and fiduciary compliance; monitoring and assessing risk; and meetings ethical standards" (p. 5).	– Strategic direction – Policy setting
Australian Institute of Sport (2015)	"Governance is the system by which organisations are **directed and managed**. It influences how the objectives of the organisation are set and achieved, spells out the **rules and procedures** for making organisational decisions, and determines the means of optimising and monitoring performance, including how risk is monitored and assessed" (p. 2).	– Strategic direction – Operational dimension – Policy setting – Performance monitoring
Flemish Sports Agency (2016)	Define good governance as **administrative patterns** that are characterised by transparency, democracy, internal accountability and control, and solidarity.	– Principles of governance
Commonwealth Sports Movement's Strategic Plan 2015-2022(Commonwealth Games Federation, 2015)	"The **principles of good governance** in sport ensure that a sports body acts with clarity of direction and purpose in order that all constituent groups are able to exercise their rights, contribute effectively, meet their obligations with delegated authority and empowerment in order to advance the aims and objectives of the sport."	– Principles of governance
Geeraert (2022c)	'Good' governance, refers to a normative framework that allows for judging **structures, processes and/or policy content** and outcomes. The qualifying prefix 'good' implies that good governance frameworks are both employed as a benchmark for evaluating governance and as a prescriptive standard for governance.	– Structures, processes, policy content

Adapted and extended from: Dowling et al. (2018)

2.3.2 Conceptually unpacking sport governance

The increasing complexity of sport governance, with new stakeholders entering the scene, means that sport organizations must compete, adjust, and cooperate within their governance structures. As a result, their structures, domains, and boundaries are subject to contestation and negotiation. Henry and Lee (2004) recognised this shift from the traditional top-down hierarchies of sport organisations (especially regarding sport governing bodies). The governance of sport organisations is no longer performed in isolation, behind closed doors. As sport changes through interaction with a complex web of stakeholders (private, public, and non-profit third parties) who make claims on it, so do its governance structures.

Henry and Lee have expanded on Leftwich's work in the field of social policy/political economy (Leftwich, 1994), and introduced the concept of **systemic governance**. Within this framework, they identify two subsets: **organisational** governance and **political** governance, as diagrammatically presented in Figure 2.1 below. Systemic governance encompasses the interplay of **policy, polity, and politics** in shaping governance processes.

These approaches (or concepts) as aptly labelled by Henry and Lee, encapsulate the ongoing endeavour to comprehend the evolution of sports in recent decades. Commercialisation and internationalisation have significantly influenced the development of sports, leading to a growing push to operate sports organizations in line with for-profit principles. Furthermore, it's evident that national and supranational institutions are making substantial efforts, leveraging their legal and economic authority, to formulate sports policies that align with the principles of good governance. Notions include concepts such as transparency, democracy, internal accountability and control, solidarity, and adding value to society through sports. As Henry and Lee stated "…
In using this three-part distinction, we mean to tease out the relationship between

analytic/explanatory uses of the concept of governance and prescriptive/normative accounts of how a governance system ought to be operated."   (Henry & Lee, 2004, p. 26).

As a result, this research aligns with the concept of political governance, specifically focusing on sport policy developed by government sport agencies. The sport policies formulated by these agencies can be classified within the political subset of governance proposed by Henry and Lee (2004), as governments actively aim to guide the actions of sport organisations. Consequently, these efforts have significant implications for the organisational behaviour of sport organisations, which constitutes the second subset identified by Henry and Lee (2004). In effect through their sport policies governments aim to develop normative pressures (DiMaggio & Powell, 1983) where sport organisations governance will be based on good governance principles and as such conform to wider societal expectations of good business practice. To further support good governance implementation governments also resolve to adopt coercive measures (DiMaggio & Powell, 1983; Etzioni, 1975) by e.g., withholding funding from sport organisations for non-compliance. Finally, sport organisation, in their attempt to implement the good governance principles required by the governmental agencies, may resolve to mimetic isomorphism (DiMaggio & Powell, 1983) as sport organisations tent to take on the formal and substantive attributes of organisations with which they interact (i.e., other, perhaps more successful, sport organisations) and organisations upon which they depend (i.e. the governmental agencies that fund them).

Figure 2.1: Three interrelated approaches to governance

Systemic

Organisational   **Political**
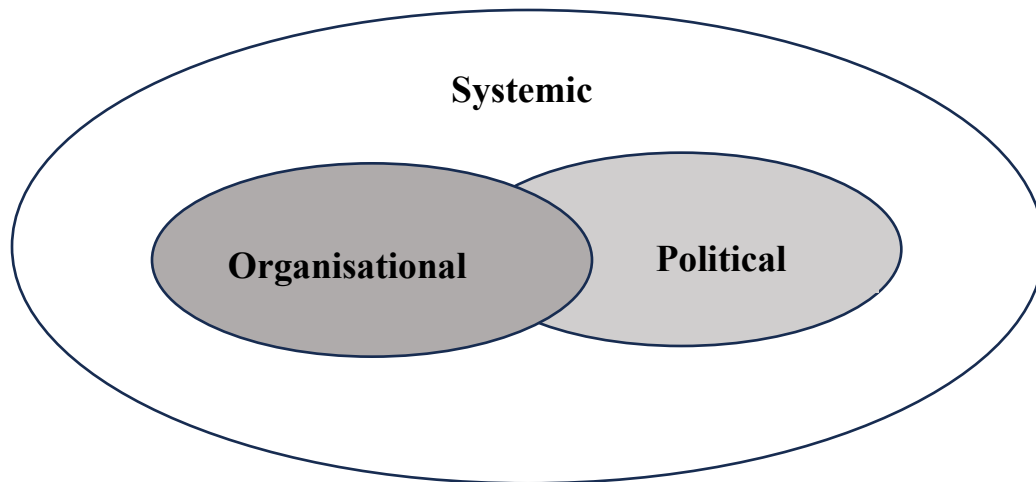
Source: Henry and Lee (2004)

Henry and Lee's categorisation has been used by Dowling et al. (2018) in their scoping review to identify published research on sport governance. This thematic approach is also utilised in this research work, and the sport governance literature is reviewed through the lens of the three Concepts of Governance. The literature for each *Concept* will is further grouped into topic areas identified in the literature reviewed. However, as these are interrelated concepts, it is natural that some of the literature reviewed will cross two or even all three of the concepts. As stated by (Maarten, 2022, p. 39) "Good systemic governance and good political governance are co-determining good organisational governance". This is presented in Table 2.2 below.

Table 2.2: Governance types, themes, modes of governance and subthemes

Governance Type	Theme	Modes of Governance	Subtheme	Relevance to this thesis
Systemic	– Changing governance structures	– Polity	– sport systems of specific countries – governance in specific sports – role of stakeholders within the governance of sporting events	– The adoption of a formal governance code promotes good governance. Can the adoption better be promoted through a "stick or carrot"?
	– The role of individual or multiple actors in sport governance arrangements	– Politics	– influence of individual or multiple actors on governance arrangements – how changes in governance arrangements have impacted the way sport organisations operate	– Governments and other social enterprises are often the biggest funders of sport and especially NSFs. As such their pressure for improved governance in constantly increasing. As funders, how can they better influence or accelerate the adoption of good governance principles? This thesis will explore the relationships among coercive control, remunerative control, certainty of control, and compliance with governance codes.
	– Interorganisational relationships	– Policy	– cross-sectoral partnerships – community sport policy – collaborative governance	– To promote governance (including social responsibility) in NSFs and sport organisations in general, several governance principles or governance codes have been proposed at national and supranational level by governments, the EU, and international governing bodies. Against this background there
	– Failures in governance, corruption	– Policy	– doping, – match-fixing	
Organisational	– Governing board dynamics	– Policy	– board structure – performance, including board–executive relationship – strategic capability	

Table 2.2: Governance types, themes, modes of governance and subthemes				
Governance Type	**Theme**	**Modes of Governance**	**Subtheme**	**Relevance to this thesis**
Political			– gender diversity	have been voices that this near mandatory promotion of good governance codes curtails the autonomy of sport organisations. Through the current research a viable strategy will be proposed as to how the combined effect of Code compliance assessment, punitive mechanisms and motivational incentives can promote compliance without negatively impacting sport autonomy.
	– management behaviour and practice	– Policy	– leadership – good governance principles – corporate social responsibility – rules and regulations	
	– supranational level,	– Policy	– EU sport policy	
	– national level	– Policy	– National sport policy – Issue of good governance codes for sport – Sport organisations autonomy	
	– International Sport Governing Bodies	– Polity	– ISBGs role in steering sport organisations and systems. – Autonomy of ISBGs – Self-Regulation of ISBGs – Governments vs ISGBs	

Source: Adapted and extended from (Dowling et al., 2018), Henry and Lee (2004) and Treib et al. (2007)

2.3.2.1 Systemic Governance

Systemic governance reflects the shifting world of sport governance. In recent years we have witnessed a move away from the direct control of sport either by governments and/or other hierarchical structures (such as the traditional European Sport model) to "a network of organisations which seek to allocate resources and exercise control and co-ordination" (Rosenau, 1995). To an extent, as stated above, this is an effect of the commercialisation and internationalisation (or globalisation) on how sport is governed. As Henry and Lee (2004) explain, *"Systemic governance is concerned with the competition, cooperation and mutual adjustment between organisations in such systems."* (Henry & Lee, 2004, p. 26). *"Thus the old, hierarchical model of the government of sport, the top-down system, has given way to a complex web of interrelationships between stakeholders in which different groups exert power in different ways and in different contexts by drawing on alliances with other stakeholders"* (Henry & Lee, 2004, p. 28).

In the evolving world of sports, the concept of systemic governance characterises the transition from a regulation/coordination of actions that were previously centralised, hierarchical, and vertical (i.e., government) to a horizontal regulation/coordination in terms of networks based on consensus/compromise and power shared with several actors (i.e., governance). This new type of governance is profound in establishing public–private partnerships. A prime example of this is the establishment of hybrid bodies such as the World Anti-Doping Agency (WADA), where the responsibility to regulate the global fight against doping is between the sport movement (primarily IOC) and governments across the world (Chappelet et al., 2020).

- <u>Changing governance structures</u>

These changing governance structures within sports are the most researched topic within the concept of systemic-related governance research (Dowling et al., 2018). These changes in governance structure highlight the move from centrally governed sport organisations to the need to expand governance structures to consider more or even new stakeholders. This is further elaborated through the use of resource dependence theory (RDT).

Goodwin and Grix, (2011), in examining UK sport policy, have identified that despite the rhetoric of UK governments that their new sport policy has increased sport autonomy, this is not actually the case. It concludes that one of the key delivery arms of grassroots sport policy in the UK, County Sport Partnerships (CSPs) are delivery arms of state policy already decided upon, exhibiting little autonomy from the central Government. It puts forward the notion of 'asymmetrical network governance' to highlight the modified forms of governance, which still rest on asymmetrical power relations and essentially unchanged patterns of resource dependency operating in the sports policy sector (Grix & Phillpots, 2011)[5].

On the opposite site, again from a resource dependence theory perspective and based on stakeholder theory, Sotiriadou (2009) argues that Australian sport stakeholders, faced with financial instability and excessive dependence on governmental funding, explored various strategies. These included seeking alternative sources of income, merging with or collaborating with other stakeholders, and embracing intra-organisational cooperation. Both studies highlight an essential component of this research: the effect of reliance on government funding on the

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[5] This overreliance on governmental funding and the effects it has on sport organisations once this funding is significantly reduced has been examined by Giannoulakis et al. (2017) following the financial crisis in Greece and Bostock et.al. (2020), with in the UK context but it is beyond the scope of this research.

structure of sport organisations (resource dependence) and the ability of the funder (usually a governmental agency) to influence the governance of the funded organisation.

The concept of changing structures was also examined from an Institutional Theory perspective, specifically through the concept of isomorphic pressure (see section 2.3.1). McLeod et al. (2021), using an adapted version of (Jamali & Neville, 2011) multilevel institutional model, enriched with 32 interviews undertaken with key stakeholders in the sport sector of India, examined the drivers and barriers of governance convergence in Indian sport. They proposed a theoretical framework based on their work that illuminates the drivers and barriers to governance convergence in sport, as shown in the figure below.

Figure 2.2: A multilevel institutional framework for assessing governance convergence
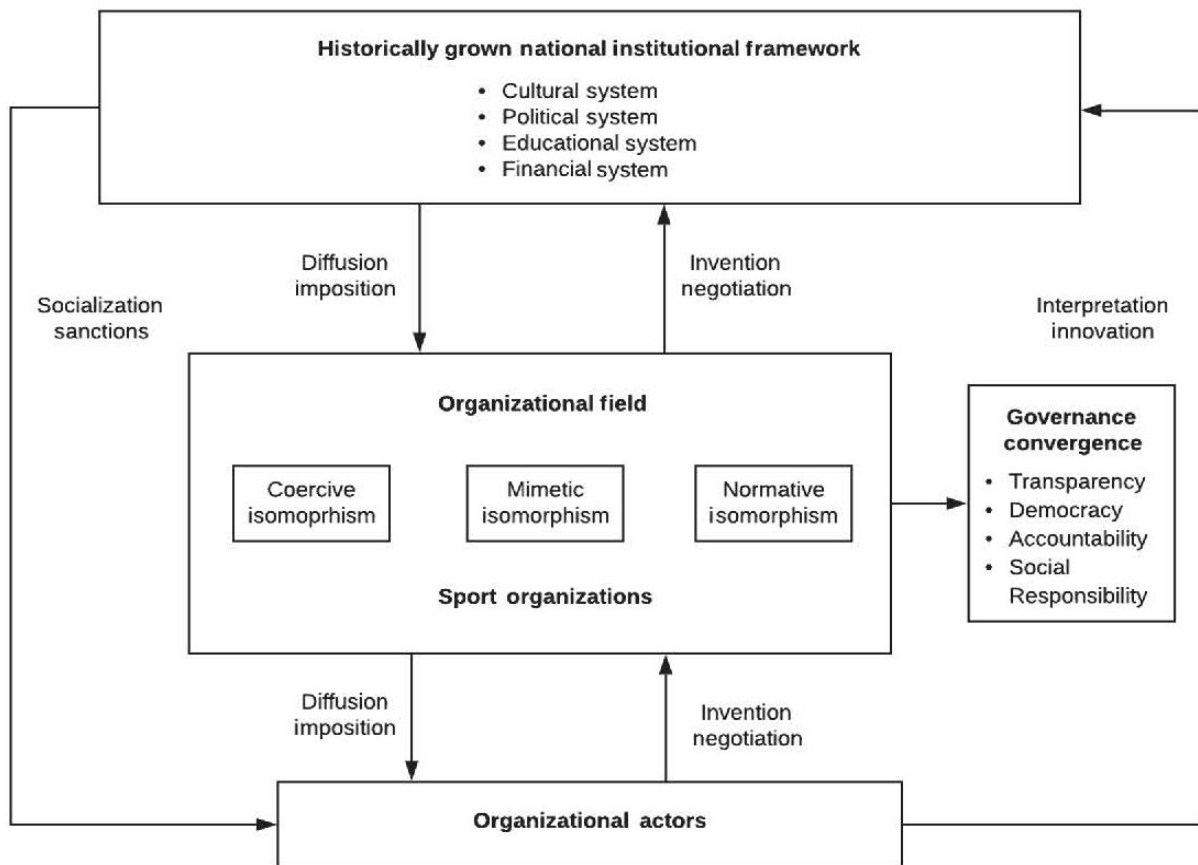
Source: McLeod et al. (2021)

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They contributed to the advancement of institutional theory in sport governance by demonstrating how isomorphic processes are shaped by an intricate interplay of factors originating from three distinct institutional levels: national, international, and the sport organisation itself. This approach aligns closely with the concepts discussed in Section 2.2.3 of this thesis, which posits that organizations adopt governance frameworks in response to external pressures, particularly those from funding agencies that mandate the adoption of specific governance principles.

Beyond examining the general sport systems of specific countries, other systemic research has focused on the implications of these environmental changes on the governance of particular sports. An example of this is the work of Consens and Slack (2005) who examined how, in the USA, state-driven legislation, such as the deregulation of cable broadcasting in 1977, affected the governance mechanisms of North American major league professional sport organisations with the creation of new stakeholders (e.g., broadcasting corporations). *"These new patterns of relationships demonstrated a newfound appreciation among the actors of their collective interdependence"* and the effect on *"the governance mechanisms in the field"* (Consens & Slack, 2005, p. 39). Further research that examined the implications of field-level changes for the development of specific sports includes rugby (O'Brien & Slack, 2003), horse racing (Hoye, 2006), baseball (Consens & Slack, 2005), and basketball (Washington & Ventresca, 2008).

Other researchers have used a governance angle to examine the increasing role of stakeholders within the governance of sporting events. For example, Phillips and Newland (2014) used as a case study triathlon in Australia and the US to elaborate on the involvement of third-party operators (TOPs) and local councils. They have identified that the governing bodies of such sports see the opportunity to further develop their sport by using TPOs capacity to deliver

profitable and attractive sport events by using infrastructure provided by the local councils. As expected, TOPs are lured to the sport based on a profit motive and local councils are motivated to be involved in triathlon by social and economic outcomes. The end result of this is that the highly specialised TPOs are becoming very influential in the governance and management of the sport taking on the traditional roles of sport governing bodies in the sport's development, thus demonstrating a shift from conventional governing structures toward an increasingly networked-based approach.

A systemic concept approach was followed by many other authors, such as Girginov (2012), who looked at the governance system developed to guide and steer collective actions towards developing the legacy of the London 2012 Olympics.

- Interorganisational relationships

The changing structures in sport governance as presented above have also profoundly affected interorganisational relationships. These inter-organisational relationships are most evident in developing various partnership arrangements within sports and through the concept of collaborative governance.

A number of studies have looked at these cross-sectoral partnerships, mainly with Babiak as a contributor e.g., Babiak (2007); Babiak and Thibault (2009) highlighting the challenges in multiple cross-sector partnerships. For example, Babiak and Thibault (2009) examined the challenges associated with the partnerships the Canadian Sport Centre had to create with (a) government partners (that provide financial support), (b) non-profit partners (that provide some funding and carry out programs and services) and (c) corporate partners (commercial organisations operating in different businesses, e.g., energy production, pharmaceuticals, and financial services).

Similar studies have demonstrated the complexities of partnership work. Phillpots et al. (2010) researched the move from 'big' government to governance by and through networks and partnerships in the sphere of County Sport Partnerships (CSPs) in grassroots sports in the UK. Such a process was intended to disperse power among many actors and diminish the state's ability to control policy. However, their findings suggest the opposite. They argue that the new governance arrangements for CSPs appear relatively top-down and managerial and are reflective of 'hierarchical' and 'rational goal' models of governance. Despite the delivery of grassroots sport policies in the UK through 'partnerships', the central management, monitoring, and control of government policy delivery has never been this strong (Phillpots et al., 2010).

In a series of research papers, Shilbuty, Ferkins and O'Boyle (jointly or independently) have examined collaborative sport governance primarily in a federated sport environment [6] (Bradbury & O'Boyle, 2015; Ferkins et al., 2018; O'Boyle & Shilbury, 2016; Shilbury et al., 2013; Shilbury et al., 2016; Shilbury et al., 2020). In their view, collaborative governance can aid sport organisations, especially in federated governance models, to respond to the challenges faced in such models. However, their research identified barriers and challenges in its implementation (Shilbury et al., 2016) and acknowledged that the concept of collective board leadership may be too new and does not yet resonate with directors of federated sport organisations (Shilbury et al., 2020).

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[6] An interesting case that deviates from the norm is presented by Hassan and O'Boyle (2017), who utilised collaborative governance to analyse the obstacles encountered by the Gaelic Athletic Association (GAA) in Ireland. Their findings indicate that addressing the dichotomy between sporting volunteers and professional salaried staff, along with their conflicting interests and objectives, and effectively representing the perspectives of grassroots members, while also accommodating increased commercial interest, can only be achieved through the implementation of a meaningful stakeholder model.

- <u>Failures in governance, corruption</u>

Corruption in sport is a grave concern for all stakeholders involved, ranging from small local clubs to major sports enterprises like football, as well as fans, sponsors, governments, and other institutions. The essence of sport lies in its inherent unpredictability, where the possibility of an underdog triumphing over a formidable opponent creates excitement and captivates millions. Corruption poses a direct threat to this unpredictability. When corruption infiltrates sports through practices like doping or match-fixing, it compromises the integrity of the game and diminishes its inherent uncertainty. Consequently, fans may lose interest in sporting events if they perceive that the outcomes are manipulated rather than determined by fair competition. In certain instances, such losses of interest have been observed. The erosion of the uncertainty that defines sports would ultimately result in the loss of the very essence of sport itself. Therefore, corruption stands as the most significant threat to the future of sports in the 21st century, rightfully deserving widespread concern. Masters (2015, p. 113) defines corruption in sport as *"corruption in sport equates to the deviation from public expectations that sport will be played and administered in an honest manner"*. In an attempt to help understand the corruption risks in sport, Transparency International[7] in 2016 issued its Global Corruption Report (GCR) on sport (Transparency International, 2016). This report focuses on sports governance, the business of sport, the planning of major events and match-fixing.

Within the realm of sport governance literature, failures in governance, particularly those arising from corruption, are commonly examined within the context of systemic governance.

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[7] Transparency International (TI) is the global civil society organisation leading the fight against corruption. Through more than 100 chapters worldwide and an international secretariat in Berlin, TI raises awareness of the damaging effects of corruption and works with partners in government, business and civil society to develop and implement effective measures to tackle it.

They are viewed as indicative of broader systemic deficiencies in governance within the sporting domain (Dowling et al., 2018). Consequently, there is a prevailing belief that implementing appropriate governance structures, including mechanisms to detect and ensure compliance with codes of conduct, can effectively mitigate, prevent, or address corruption issues prevalent in sports.

This belief has led to an increasing number of national, supranational institutions and national and international sport organisations issuing codes, principles, or indicators of good governance [8] or rather of "better governance" as Chappelet (2016) points out. The underlying premise of this research is rooted in this belief, (despite the counterarguments that exist see section 2.3.2.4) aiming to identify the most effective approaches to achieve compliance with a code of good or better governance and the subsequent enhancements in governance that result from such compliance.

This research aims to make a valuable contribution to understanding how to foster improved governance practices within the sporting sector by investigating and analysing the use of punishment and/or reward mechanisms by governmental agencies funding sports. This study focuses on understanding how governmental agencies can effectively influence compliance with governance codes, usually issued by themselves, through the strategic application of incentives and/or sanctions. By examining the impact of such approaches on sports organisations, the research aims to shed light on the mechanisms that facilitate the adoption of better governance practices.

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[8] For a list of such principles and indicators see Chappelet and Mrkonjic (2019) in the Research Handbook of Sport Governance (chapter 2).

2.3.2.2 *Organisational Governance*

The second approach, per Henry and Lee (2004), of governance is organisational or corporate governance, also referred to as "good governance". This type of governance is concerned with normative [9], ethically informed standards of managerial behaviour. As such, *"Corporate or 'good organisational governance' refers to the accepted norms or values for the just means of allocation of resources, and profits or losses (financial or other) and for the conduct of processes involved in the management and direction of organisations in the sports business"* (Henry & Lee, 2004, p. 26). Organisational governance refers to the work of the board of a single organisation and is closely related to business ethics (Ferkins & Shilbury, 2020). *"Approaches to business ethics can be normative (spelling out the 'rules of right conduct') or descriptive (analysing how moral principles are, or are not, evident in the actual operation of organisations or systems)"* (Henry & Lee, 2004, p. 30). Compared to the well-established concept of corporate governance in the context of sport organisations, the term organisational governance embeds further obligations and duty of care to a broader range of stakeholders.

In their scoping review of sport governance literature, Dowling et al. (2018) have identified two broad areas of literature under which the literature associated with organisational governance can be allocated: a) governing board dynamics and b) management behaviour and practice.

- Governing board dynamics

Governing board dynamics is mainly concerned with how the boards of sport organisations' function and what governance arrangements are employed in doing so. Under this category are

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[9] In agreement with DiMaggio and Powell (1983) definition of normative isomorphism.

issues like board structure, conflicts, decision-making, performance, board-executive relationships, strategic capability, and gender diversity.

The most researched topic of the above is board structure, including a board's roles and responsibilities. Taylor and O'Sullivan (2009) sought to ascertain the most appropriate board structure for the UK's national governing bodies (NGBs) of sport. They concluded that the "one size fits all solution" for the entire UK sport sector is problematic. The overall consensus their study reached is as follows: (1) NGBs should reform the composition of their boards to reflect better business demands, i.e. a reasonable balance between members possessing appropriate business expertise and members representing the wider membership of the organisation; (2) board size should be in the range of five to twelve members; (3) NGBs should have different individuals occupying the positions of CEO and chairman; and (4) boards of NGBs should possess more non-executive directors.

O'Boyle (2012) agreed with the concept that one size does not fit all. Utilising agency theory, resource dependence theory, and Institutional theory, he analysed the structures and systems of governance of the traditional business. Based on this, he concluded that no one grand system or governance structure can adequately explain the board's role and its varied responsibilities within a sport organisation. He further confirmed some of the proposals of Taylor and O'Sullivan (2009), such as the need for boards to establish clearly defined boundaries between their governance role and the role of management.

The role of the boards in Scottish football clubs was examined in more detail by McLeod et al. (2021), who concluded that perceived board roles fall into five categories: control, service, operations, resource cooptation and strategy. Organisational size was found to influence perceptions of board roles in Scottish clubs. At the same time, an apparent alignment of interests

between owners and managers and a subsequent reduction in agency cost has implications for the control role. An integration of stewardship theory and resource dependency theory is argued to provide a more holistic understanding of board roles in this context.

Bradbury and O'Boyle (2015) further examined the independent board structure adopted by New Zealand Cricket. They suggested that governance can be improved through independently appointed board members with appropriate skills instead of elected members from within the sport whose skills are not guaranteed. Benefits of this include increased revenue generation, skills matrix creation to help in board member appointment, the introduction of board member remuneration, high calibre board, increased consultation, and engagement with regional associations. Commercial expertise is needed on the board.

The impact of the modernisation agenda introduced by UK Governments on the roles and responsibilities of governing boards within UK National Governing Bodies (NGBs), has been researched by Tacon and Walters (2016). The research revealed that board members now consider the financial and strategic roles of the board more important than representative roles. Board members from larger NGBs consider their professionalised financial and strategic oversight role to be more important than board members from smaller NGBs. Smaller NGBs assume their traditional roles of fundraisers and ambassadors as more important than larger NGBs. Interestingly the research found some evidence that board members made decisions in line with policy from funding agencies. A finding directly related to this research, as compliance with Codes issued by funders, is examined.

Board structures and characteristics have also been researched regarding trust. Fahrner and Harris (2020) examined the association of trust and structural features within national governing bodies' (NGBs) boards in Germany. Their research suggested that trust is a multifaceted

phenomenon, affected by various (beneficial and detrimental) variables in the specific context of NGB boards. The study makes numerous interrelation and governance dynamics recognisable, with board size, board members' skill differentiation and temporal stability of boards appearing to be particularly relevant. [10]

Organisational performance is another well-researched area of organisational governance. One of the first studies in this area was that of Papadimitriou (1998). It focused on the external pressures and constraints that impinge upon the performance of non-profit sport organisations in Greece and to what extent these processes influence overall organisational performance measures. Two interrelated themes were examined. First, how are these needed resources acquired by these organisations, and second, to what extent do the assumptions and practices taken for granted by the funding institution impinge upon the organisations' behaviour and performance. It further attempted to understand the performance of non-profit sport organisations by shedding light on the institutional context and the problems associated with acquiring external resources and legitimacy. Utilising resource dependency theory, the study demonstrated a restrictive resource dependence on the state, accompanied by a lack of performance inducements, poorly defined technical arrangements, and state intervention in sport-related activities. The low performance of sport organisations is explained in terms of the influence of the institutional processes on their internal organisational behaviour.

Similarly, Bayle and Robinson (2007) aimed to understand how organisational elements of national governing bodies (NGBs) in France act and interact to produce performance by proposing

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[10] The issue of trust has also been examined by O'Boyle and Shilbury, (2016) but from a systemic governance perspective (see section 2.2.2.1) under the notion of how trust supports the development of collaborative governance.

a framework that uses a number of strategic and operational factors to explain their performance. It concluded that the strategic performance mix includes the system of governance, the quality of the operating network and the position of the NGB system within the industry. The operational performance mix includes factors facilitating operational performance (forms and levels of performance, presence of a participatory organisational culture, and adoption of a partnership approach) and factors inhibiting performance (deficient information systems, inappropriate incentive mechanisms, absence of control mechanisms, and political sclerosis).

The performance of voluntary sport organisations was examined from the perspective of the relationship between board performance and board–executive relationship by Hoye and Cuskelly (2003) regarding voluntary sport organisations in Australia. The results showed a perceived association between four elements of the board-executive relationship and effective board performance. . These elements included board leadership, trust between the board and the executive, the control of information available to the board, and responsibility for board performance.

The potential to improve organisational performance through improving boards' strategic capability has been researched by Ferkins et al. (2010) in the case of a NSO in New Zealand and stated that *"Performance is understood to be the forward- looking, strategic role of the board"* (Ferkins et al., 2010, p. 605). For this, they proposed an extension of the Edwards and Cornforth (2003) model of influences on board outputs which centred around Context analysis; Issues identification; Intervention and action; and Monitoring and evaluation by adding three new factors, board integrating regional entities into the governing role; board operational knowledge; and board maintenance of the monitoring function.

Ferkins and Shilbury have further examined the issue of board strategic capability in two research papers (Ferkins & Shilbury, 2012, 2015). The first one explored what meaning board members (including the CEO) of two NSOs in New Zealand attached to the concept of "strategic capability". In so doing, their inquiry also identified factors considered to constrain or enable board strategic functions. This included the need to have: capable people, a frame of reference, facilitative board processes, and facilitative regional relationships (Ferkins & Shilbury, 2012). The second one aimed to explain the notion of board strategic capability and identify the factors and their relationships influencing the strategic capability of sport boards. In doing so, they identified six distinct and central factors of board strategic capability: increasing the contribution of volunteer board members ('will and skill'); board operational knowledge; board integrating regional entities into the governing role; board maintaining the monitoring, and control function; board co-leading strategy development; and board co-leading integration of strategy into board processes (Ferkins & Shilbury, 2015).

Researchers have also explored the issue of gender diversity within the governing board dynamics of sport governance, as conceptualized by Henry and Lee (2004). A number of articles have been published on this issue (Adriaanse, 2012; Adriaanse & Schofield, 2014; Claringbould & Knoppers, 2012; Kamberidou & Patsantaras, 2007; Sisjord et al., 2017), but three of the most known ones have been authored or co-authored by Adriaanse (Adriaanse, 2016; Adriaanse & Claringbould, 2014; Adriaanse & Schofield, 2014). The first study (Adriaanse & Schofield, 2014) examined the impact of gender quotas on gender equality in governance among boards of National Sport Organisations (NSOs) in Australia. The research concluded that a minimum quota of three women, not just 30% of board members, was necessary to advance gender equality in governance. However, these are only effective if a gender quota is adopted in conjunction with other measures.

These included women in influential board positions, solidaristic emotional relations between men and women directors, and directors adopting gender equality as an organisational value.

The second study (Adriaanse & Claringbould, 2014) discusses gender equality in sport leadership, and it is essentially a bridge between the two subthemes of the concept of organisational governance, "governing board dynamics" and "management behaviour and practice" (see next section) with leadership issues belonging to the second subset. This study investigated how gender is constructed in the legacies of the five World Conferences on Women and Sport convened by the International Working Group on Women and Sport from 1994 to 2010 concerning gender equality in sport leadership. Based on Connell's (2009) four dimensions of gender relations presented above it concluded that gender with regard to sport leadership was mainly constructed on the dimension of production and power relations (more women in leadership positions) and symbolic relations (creating a sporting culture that values women's participation at all levels).

The third study (Adriaanse, 2016) examined gender diversity in sport governance globally. The findings showed that women remain underrepresented in sport governance on three key indicators: as board directors (global mean 19.7%), board chairs (10.8%) and chief executives (16.3%). This under-representation in sport governance is due to complex gender dynamics, and gender diversity on sport boards is associated with Connell's four interwoven dimensions of gender relations: production, power, emotion, and symbolism (Connell, 2009).

The role that board members play in advancing policies and processes of gender equity in leadership positions in sport governance was more recently also examined by Sotiriadou and de Haan (2019). Their findings also highlighted the role of boards in promoting gender equality. More specifically, the results show that within the multilevel framework, at the individual (micro) level, male equity champions pave the way for both challenging existing stereotypes at an

organisational level (meso) within the boards and at the sport level (macro) through the introduction and implementation of strategies and policies.

However, according to Alsarve (2024) to truly achieve gender equality more than just affirmative interventions such as quotas and education is needed as this run the danger to "incorrectly signal that the problem of inequality is 'solved' when organisations achieve a 40–60 minimum representation" (Alsarve, 2024, p. 298). She further argues that because gender is linked to both cultural and economic factors, achieving equal cultural representation alone cannot resolve gender inequities. Economic injustices may persist under the guise of associative democracy and gender equality. As such in order to gain a deeper understanding of the complexities of gender equity interventions in sport potential are needed to increase the cultural recognition and financial redistribution in more equitable ways.

- <u>Management behaviour and practice</u>

The second subtheme that emerges under organisational sport governance is management behaviour and practice. This category is concerned with issues like leadership, good governance principles, and corporate social responsibility.

Taking the lead from above, where gender equity is linked to leadership, the issue of leadership in sport governance is also studied in its own right. A prime example is the work of O'Boyle et al. (2019). They explored leadership within non-profit sport governance from a holistic perspective and attempted to create a depiction of leadership in sport governance. As such, they presented a working model of leadership in non-profit sport governance based on empirical literature and evidence. Their model is set on three levels intraboard leadership, volunteerism and interboard leadership. Focus is primarily given to intraboard leadership with issues like the triadic leadership relationship between chair/board/CEO, the need for clear leadership roles, and the

distribution of leadership within the triadic relationship. The level of leadership between boards or interboard is mainly examined through a trust[11] perspective.

Further expanding on this work, the same authors in their 2023 publication (O'Boyle et al., 2023) using empirical evidence gathered from 12 interviews within the context of the Australian national sport organisations proposed a working model of leadership in non-profit sport governance as presented in Figure 2.3. In this model they propose that the intra-board leadership is a microcosm for inter-board leadership and that both at the intra-board and inter-board levels, the sharing of information and increasing transparency is important to build trust.

Figure 2.3: A refined working model of leadership in non-profit sport governance
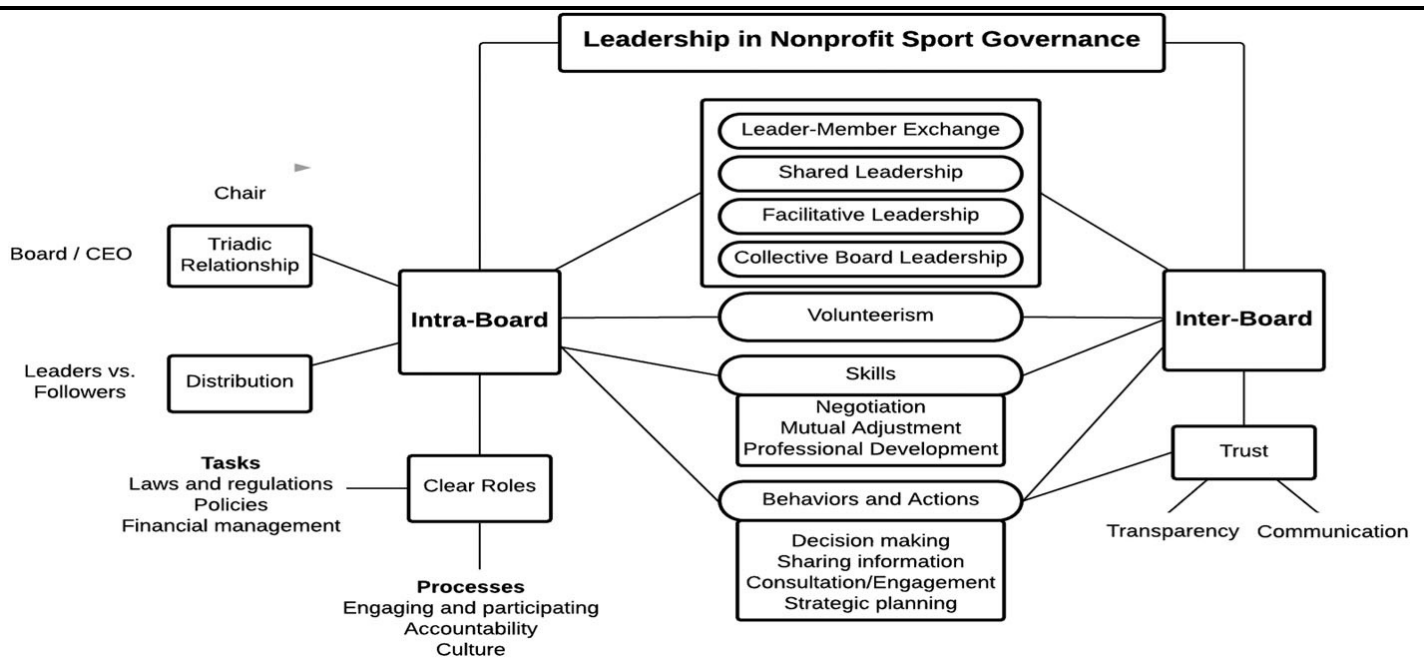
Source: O'Boyle et al. (2023, p. 201)

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[11] The issue of trust was also examined under the subtheme of board structures in theme of "Governing board dynamics" of Organisational governance.

However, this subtheme's most widely researched topic is good governance principles. Among the first to propose specific principles of good governance was Henry and Lee (2004), who proposed seven principles of good governance: transparency, accountability, democracy, responsibility, equity, effectiveness, and efficiency. Since then, a large number of sport organisations, academics and other institutions have proposed their own set of good governance principles / indicators / dimensions [12] applicable to national and international sport organisations. As such, the adoption (or not) of good governance principles or indeed practices has been examined both at the level of international sport organisations (e.g., IOC) and the national level, with research encompassing the whole notion of good governance or the research focusing on specific principles of good governance such as accountability or democracy.

One organisation that has extensively researched the area of compliance with good governance principles is the Danish Institute for Sports Studies (IDAN) through its Play the Game initiative. After the funding period of the AGGIS [13] project (Danish Institute for Sports Studies, 2013), Play the Game/IDAN decided to continue its efforts on the subject of good governance. In 2014 it engaged in a project with the University of Leuven with the aim and view of elaborating the Sports Governance Observer from a checklist into a practical benchmarking tool with a scoring system that can be used to assess the degree of good governance in international sports federations. As such, data was collected mainly from the federations' statutes, bylaws, internal regulations (if

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[12] For a comprehensive list of sport governance frameworks (including principles) by year of publication (up to 2018) see Chappelet and Mrkonjic, (2019), although omissions include for example the Good Governance Code issued by the Cyprus Sport Organisation which is the benchmark for this study.

[13] Action for Good Governance in International Sports Organisations (AGGIS) project. The project received financial support in 2012-2013 from the European Commission's Preparatory Actions in the field of sport. It produced a checklist of good governance elements for international sports federations.

available), and the websites of 35 Olympic sport governing bodies and benchmarked against four dimensions of good governance: transparency, democratic process, checks and balances, and solidarity. These federations score weak to moderate on the four dimensions. Based on the index produced, the 35 federations achieved a score of 45.4%, with 26 federations (74%) scoring less than 50% (Geeraert, 2015).

Utilising the same data collected in the above project for the 35 Olympic sport governing bodies, Geeraert et al. (2014) examined three issues accountability, athlete participation and board members' representation. For these three issues, the article presents empirical evidence on the lack of accountability arrangements, the institutionalisation of athletes' participation (but more than often without formal decision-making power) and regarding, executive body members' dominance of the European continent and the preponderance of male officials. The article supported the view that there is a need to improve governance in these organisations and to agree on a set of well-defined criteria for good governance. Otherwise, the sport movement cannot justify its demands for self-governance and autonomy.

Focusing on the International Olympic Committee (IOC), Chappelet (2011) examined IOC's accountability towards its stakeholders. The analysis was based on the accountability model proposed by One World Trust [14] in 2005. Based on this model, the article concluded that although considerable progress has been made by the IOC since 1999, accountability improvements remain possible and desirable. As such, it proposed having an independent entity responsible for monitoring the IOC's activities regarding the Olympic Charter.

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[14] One World Trust is a London think tank that has focused on the topic of accountability.

On a national level, the work on IDAN through Play the Game presents an indicative analysis of the quality of governance performance of NSOs. With funding from the Erasmus + programme of the European Union, IDAN partnered with academic institutions and sport organisations [15] from eight other European countries and, led by Arnout Geeraert, developed the National Sports Governance Observer tool. The tool consists of 274 single indicators describing 46 governance principles within four governance dimensions: Transparency, Democratic processes, Internal accountability and control, and societal responsibility. The consortium then applied this tool to eight or more NSFs in each participating country and produced indexes on good governance performance. Aggregately the average score of the NSGO country indexes was 47%, corresponding to a 'moderate' scoring label. It also produced an index for each of the four dimensions, with the average transparency index of the nine European countries' scores being the highest of the four, namely 65% (good). The average democracy and accountability indexes stand at 44% and 51%, respectively. The average NSGO societal responsibility index is 38%, the lowest of the four indexes (Geeraert, 2018a).

Outside Europe, Pielke et al. (2019) used the Sports Governance Observer (SGO) methodology developed by Geeraert (2015) for 47 US Olympic National Governing Bodies (NGBs) of sport. The result was a wide range of scores across the NGBs, with a high score of 81 (out of 100) and a low score of 41, with an average of 58 and a median score of 59. Pielke et al. (2019) stressed an important limitation of the tool. The methodology relies on publicly available information, which may have questionable value due to its reliance on what an organisation chooses to present to the public, rather than examining the cultures, leadership, and behaviours

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[15] The author represented Cyprus Sport Organisation in this project.

that underlie such issues. Indeed, the SGO 2015 report (Geeraert, 2015) portrayed FIFA as having the second-best score amongst the 35 Olympic sport governing bodies at a time when the football world was shocked by the corruption incidents that troubled FIFA primarily and, to a lesser extent, UEFA.

On a national level, Minikin (2015) examined how three unspecified National Olympic Committees (operating in less structured or developed environments, as reported by the author) manipulated the democratic process to achieve legitimacy. He concluded that it is relatively easy for individuals to manipulate the established rules to obtain and retain power. As such, the self-regulatory nature of sport, which assumes that elected representatives put the organisation's interests before their own and always act in the members' best interests, might be inappropriate. This paper's findings align with those of other researchers (Geeraert et al., 2014), indicating that maintaining autonomy in sport organisations requires a review of the concepts of self-governance, specifically through democracy. Synthesising much of the work cited above Thompson et al. (2023) in their systemic review of governance principles identified in total 258 governance principles with the principles of transparency, accountability and democracy being the most commonly used ones. This work has however highlighted a "lack of definition, and poor measurement that have led to uncertainty and the dissemination of undefined terms despite appropriate levels of evidence used (Thompson et al., 2023, p. 1881). It further calls for additional research since the proposed governance principles suffer from vague definitions and inadequate measurement, causing uncertainty and the spread of undefined terms. To advance this field, researchers need robust principles that capture the multi-dimensional nature of governance— structure, process, outcomes, and context—along with sophisticated measures and analyses across various contexts. The findings stress the importance of grounding research in strong theoretical

and empirical foundations to avoid perpetuating assumptions, such as the overemphasis on certain principles or presumed links between governance and performance. Researchers should also focus on measuring the actual effects of governance principles on organisational performance to ensure accurate analyses.

One of the newest themes to emerge in the literature on sport governance is social responsibility. As Jamali et al. (2008) stated, *"CG [corporate governance] and CSR [corporate social responsibility] are two sides of the same coin."* From one side, governance is a 'social responsibility' that describes the accountability of an organisation for the impact of its decisions and actions on society. On the other side, governance as a process must be socially responsible through establishing its operating functions, including board composition, structure, direction setting, risk management, reporting, performance evaluation and remuneration. Accordingly, governance can be viewed as both a means and an end of socially responsible organisational practice (Robertson et al., 2019). In understanding, however, the connection between social responsibility and governance, we need to distinguish between the established concept of 'corporate' social responsibility (CSR) primarily used by for-profit organisations with an aim to support their value creation orientation as presented in the neoliberal schools of business management and practice, and social responsibility as an ethical approach to organisational practices that responds to the demand of multiple stakeholder demands, as often is the case of sport organisations.

The way sport organisations can fulfil their social responsibility function was researched by Zeimers et al. in a series of articles. They first concluded that for sport organisations to achieve their social responsibility role, they need both new ways of incorporating such practices and embedding into the organisation what has already been learned (Zeimers *et al.*, 2019). Then by

further researching the issue, they identified four configurations associated with high social responsibility implementation and three configurations associated with low social responsibility implementation in the context of NSFs (Zeimers *et al.*, 2020). The four configurations associated with high social responsibility implementation include a) staff involvement in the board / high innovative capability / financial autonomy, b) high innovative capability/high knowledge, c) staff not involved in the board / high innovative capability / small number of professional staff and d) small number of professional staff / high innovative capability / financial autonomy. In contrast, three configurations linked to low social responsibility implementation are: a) staff not involved in the board / large number of professional staff / low knowledge; b) low innovative capability; and c) low financial autonomy / low knowledge.

2.3.2.3   Political Governance

The third approach to sport governance presented by Henry and Lee (2004) is political governance. In their own words, *"Political governance relates to the processes by which governments or governing bodies seek to steer the sports system to achieve desired outcomes by moral pressure, use of financial or other incentives, or by licensing, regulation and control to influence other parties to act in ways consistent with desired outcomes"* Henry and Lee (2004, p. 27). Political governance, therefore, refers to the increasing involvement (in various degrees) of the state (at the national or supranational level) in sport governance. According to Dowling et al. (2018, p. 7), this form of governance involves *"achieving wider social and political objectives through strategic action involving direct and indirect mechanisms and interventions and control"*. This state intervention is essentially a component of the broader social, political, cultural, and economic environment in which sport takes place.

To an extent, justification for such state intervention comes from many factors, such as the increased commercialisation of sport and the risk that sport may deviate from its social role, high-profile governance failures at national and international levels, and the aim of governments to use sport as a tool for social policy. That is to use sports as a platform to achieve wider policy aims such as improving the health of citizens, compact marginalisation (of people and areas), promoting equity etc. This was highlighted by Ferguson et al. (2023, p. 211) who state that "Sport has become ever more relevant with regards local, national and international social policy as part of an enhanced role for the third sector in tackling a plethora of societal issues."

As such the relevant literature will be reviewed based on where this attempt to steer the sports systems comes from. Firstly, at the supranational level, secondly, at the national level and finally, from within sport's hierarchy.

- <u>Political governance at the supranational level</u>

The discussion of political governance at the supranational level is mainly centred around how the European Union (EU) influences how sport is organised. This influence often extends beyond the geographical borders of the European Union. The ability of the EU to influence the governance of international sport is presented by Geeraert and Drieskens (2017). Their analysis highlights the unintentional (or indirect) exercise of power (both normative and market power) that demonstrates why sport governing bodies are willing to comply with non-hierarchical policy measures despite the absence of a strong EU sporting competence. The EU's normative power identity forms the basis for a unique operating mode, aimed at strengthening the ethical character of international sports governance. However, the EU's potential to influence sport governing bodies like FIFA emanates from its market power, notably its large, regulated market.

EU's influence on football's main international governing bodies, FIFA and UEFA, was specifically researched by Geeraert and Drieskens through the lens of a principal-agent model. This research (Geeraert & Drieskens, 2015) demonstrated that the EU could curtail the autonomy of FIFA and UEFA. They argue that although FIFA and UEFA may try to separate themselves from EU regulation, as they are based in Switzerland and do not operate within an EU member state, this does not immune them from EU regulation. Both the Court of Justice of the European Union (CJEU) and the Commission of the EU have the control instruments and the capacity to restrict FIFA and UEFA's autonomy. With the Commission taking the lead as it can deploy more control instruments (monitoring, sanctioning, and steering) than the CJEU (sanctioning).

Much of this newfound involvement of the EU and particularly EU's Commission in sport governance emanates from the soft competence [16] the EU member states have given to the EU through the Lisbon Treaty. Since the ratification of the Treaty of Lisbon, article 165 of the Treaty on the Functioning of the European Union (TFEU) grants the EU a formal role in the field of sport. As such, *'sporting bodies can no longer claim that sport is none of the EU's business'* (Weatherill 2011: 12 cited in Geeraert (2014).

Sport-governing bodies often employ engagement as a strategy to reduce the impact of the EU. Sports bodies have increasingly been induced to develop co-existence strategies with the EU. An example of this engagement strategy was their effort to influence the Convention on the Future of Europe and the subsequent intergovernmental conference to secure recognition of sport's unique

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[16] Within EU policy soft competence is when member states only grant the EU a supporting competence, i.e., the weakest type of the three principal types of EU competence. In such cases the EU can only coordinate or supplement the actions of the member states. From a legal point of view, the importance of this legal provision is thus essentially symbolical, as it merely legitimises EU action already taken in the field of sport (Geeraert, 2014).

characteristics within the Lisbon Treaty. However, their ultimate goal of exemption from the Treaty was unsuccessful (García & Weatherill, 2012).

- <u>Political governance at the national level</u>

Political governance at the national level concerns how governments (national or local) attempt to steer the sport in their country. With respect to this research, the research questions emanate from a political governance perspective at the national level. Governments are increasingly issuing codes based on the belief that if sport organizations adhere to governance principles, their governance performance will improve (Parent & Hoye, 2018), governments are increasingly issuing Codes. Moreover, using a "stick" approach (through threatening funding withdrawal), primarily, they demand that sport organisations adopt these codes of good governance.

The motivation behind the adoption and implementation of Codes issued by their funding governmental agencies in the UK by the boards of sports organizations has been investigated in the study conducted by Walters and Tacon (2018). Their research has concluded that they first adopt codes to gain external legitimacy towards their funding agency and to demonstrate upward accountability. Once adopted, a code of governance can strengthen internal legitimacy and reinforce board members' perceptions that the board is well governed. A side effect, however, of this process is that while Codes typically emphasise the importance of board members making autonomous decisions, in our case, board members perceived that Codes often constrained board autonomy.

This curtailing of sport organisations' autonomy in the UK has been researched by several academics. Most notably, Jonathan Grix (Goodwin & Grix, 2011; Grix, 2009; Grix, 2010; Grix & Phillpots, 2011; Phillpots et al., 2010) authored or co-authored a number of articles debating that

despite the UK's government rhetoric of less state though New Labours 'modernisation project' in effect this process has curtailed sport organisations' autonomy. More specifically Grix (2009) examined the impact of UK sport policy on the governance of athletics in the UK. One of the key conclusions of this research was that the hierarchical chain of power from government down to National Governing Boards (NGBs) has effectively strait-jacketed UK Athletics (UKA) into delivering a narrow, Olympic-driven sports policy to meet government-set targets, which leaves little time and resources to address the factors behind the sport's general decline. In effect, the modernisation of UKA along 'new managerialist' lines has led to a shift in national governing body accountability away from its stakeholders, including the grassroots, and up towards UK Sport. In his 2010 paper, Grix (2010), he further elaborated on this governance structure, arguing that it has evolved from the first wave 'governance narrative' to the interpretivist-inspired 'decentred approach'. He proposed a 'modified decentred approach' that accommodates structures and institutions, not just individuals.

Additionally, Grix and Phillpots (2011)[17] provided counter-evidence to the governance narrative[18]. They suggested that the sport policy sector is not adhering to 'governance narrative' ideal type. Sport organisations have effectively become the delivery arms of the Government's sport policy based on the asymmetrical power between the Government and the sport organisations. As such, an 'asymmetrical network governance' is established based on the resource dependency operating in the sports policy sector.

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[17] See also the discussion in 'Systemic Governance' under the theme of 'Changing governance structures'.

[18] "British politics and public policy delivery from 'big' Government to governance through networks, a wide array of 'partnerships' and para-statal bodies" (Grix & Phillpots, 2011, p. 4).

Along the same lines, Houlihan and Green (2009) also evaluated the impact of New Labours 'modernisation project' on two key non-departmental public bodies for sport, Sport England and UK Sport. They concluded that modernisation has resulted in a narrowing of the two organisations' objectives, the adoption of business-like principles and a 'command and control' regime in relationships with key frontline delivery partners. Lusted and O'Gorman (2010) examined the impact of government policy interventions on the grassroots football workforce through two strategies: the English FA Charter Standard Scheme and the Equity Strategy. Their research suggested that there was a general uneasiness around the imposition of modernisation at this level across a broad spectrum of grass-roots football personnel. Members of the County FA Council left feeling as though they had lost their sense of 'bottom-up' local autonomy. Renfree and Kohe (2019) also identified this loss of local autonomy in researching UK athletic clubs. They identified that clubs face considerable practical, political, and ideological constraints that adversely affect their day-to-day operations and ability to translate sport policy into 'action' in meaningful ways.

Focusing on the Northen Ireland context Ferguson et al. (2023) examined the success of the sport for development (SfD) programmes. To establish the level of efficiency and effectiveness of SfD programmes three management models were used: Outcomes-based accountability, Organisational capacity, and Resource dependency theory. The article identifies conflicts between policy and practice that impede successful project outcomes. It points out that unclear purposes, lack of a population-level evaluation model, and financial dependence lead to task-based projects rather than sector-wide outcomes. Individuals face a rigid multi-agency system without genuine collaboration. The article recommends a government-wide indicator for sport and physical activity,

connected to a comprehensive strategy, to clearly define language, purpose, and responsibilities across the public sector.

Beyond UK Parent et al. (2018) have examined the effect of new (nonsport-specific) governance legislation in Canada. Using a multicase study design for five Non-Sport Organizations (NSOs), Parent et al. (2018) suggested that the new legislation has affected the Canadian sport system, resulting in the elimination of the kitchen table and likely a few boardroom archetypes (for a discussion on boardroom archetypes, see Kikulis et al. 1992). This shift has resulted in NSOs moving towards the executive office and potentially a new, more sophisticated archetype that is focused on performance, accountability, transparency, and stakeholder participation and engagement.

Further exploring the impact of this new legislation in Canada, Parent et al. (2023) found that contemporary NSOs fall within one of four governance design archetypes: Board-led, Executive-led, Professional, and Corporate. They further indicate that "Board-led NSOs should seek to grow toward Professional NSOs, while Executive-led NSOs should target the Corporate archetype as they grow, because the Professional and Corporate archetypes demonstrate how NSOs can structure themselves and operate as capacity grows"(Parent et al., 2023, p. 1131).

- Political governance at the international sport governing bodies level

The role and influence of sport governing bodies in steering sport organisations and systems has also been researched under 'political governance'. Based on the pyramid structure of the European model of sport [19], which to a large extent is duplicated internationally in many

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[19] The European model of sport is characterised as a pyramid on the top of which we have the world / international governing body (e.g., FIFA) the continental confederations under it (e.g., UEFA), the national associations (e.g., Cyprus Football Association) and at the bottom level the clubs. This

sports such as football, sport governing bodies aim to maintain their monopolistic power and autonomy in organising their sports. Through an extensive review of literature on the governance of the Olympic Movement and international football, Geeraert et al. (2015) demonstrated the strategies that International Sport Governing Bodies (ISGBs) are deploying to safeguard their waning governing monopoly over international sport. Opting for an inductive approach, the authors present four possible conceptualisations of autonomy as applied to ISGBs, political autonomy, legal autonomy, financial autonomy, and pyramidal autonomy. For each dimension, they describe the different strategies ISGBs wield in order to safeguard different dimensions of their autonomy. For example, to maintain their legal autonomy in terms of national or EU law, they deploy strategies such as out-of-court settlements, lobbying and setting up their own sport courts.

Meier and García (2015) explored further the different ways in which one of the biggest ISGBs, the International Federation of Association Football (FIFA), defends its autonomy to govern football privately in the global and transnational market without the intervention of public authorities and the extent to which transnational industry self-regulation persists as a form of transnational private regulation able to challenge attempts by national governments to set rules in the sector. The cases studied showed that FIFA was able to confront national governments and defend its autonomy to regulate football. Suspensions (or the threat of them) serve as an efficient

pyramidal set-up made sure that the world governing bodies had a governing monopoly over their respective sports at a global level. In addition, these organisations have traditionally enjoyed considerable autonomy, and, in that sense, they were subject to almost complete self-governance (Geeraert et al., 2015). The pyramid structure of the European Sport model was further supported by the Council of the EU through its 2021 "Resolution of the Council and of the representatives of the Governments of the Member States meeting within the Council on the key features of a European Sport Model".

means to enforce the compliance of national football associations and public authorities. Governments even modified their sport policy and legislation once FIFA formally or informally requested so. FIFA even defined deadlines for governments to comply and devised road maps for conflict resolution.

Geeraert (2018b) further examined the limits of this self-regulation, arguing that the universal implementation of good governance standards in ISGBs requires either co-regulation, where public and/or civil society actors supplement self-regulation's persuasion and management mechanisms with sanctions, or meta-regulation, where public actors impose a minimum standard for self-regulation that includes robust monitoring and sanctioning mechanisms. A concept closely aligned with the central theme of this thesis which explores the optimal utilisation of both punishment and reward in tandem with control mechanisms to effectively encourage sport organizations to embrace and adhere to governance principles.

2.3.2.4 *Critiques and Challenges in Implementing Sport Governance Codes*

The analysis of sport governance in this thesis follows the assumption that implementing appropriate governance structures, including mechanisms to detect and ensure compliance with codes of conduct, can effectively mitigate, prevent, or address corruption issues prevalent in sports. To improve governance in sport, a wide range of governance principles included in Codes have been developed by sport academics and practitioners (including national sport agencies that fund NSFs) over the last 20 years (Thompson et al., 2023). However, this seemingly straightforward approach to improving governance in sport has been met with critique from academics across a range of issues.

- One size fits all

One of the most frequently cited criticisms of governance principles and Codes is the notion that "one size does not fit all." This argument, already discussed in section 2.3.2.2 was highlighted as early as 2009 by Taylor and O'Sullivan (2009) who concluded that "one size fits all" approach to board structures is problematic for the entire UK sport sector. This view is further supported by O'Boyle (2012) who concluded that no one grand system or governance structure can adequately explain the board's role and its varied responsibilities within a sport organisation.

More recently, the inadequacy of the "one size fits all" approach was highlighted by (Walters & Tacon, 2018) when examining the efforts to modernise sport governance in the UK. They cited concerns raised by many officials that the implementation of the Code was very time consuming, entailed greater administrative cost, its mandatory character has been a deterrent for recruiting talent to serve on Boards, and it was seen by some sports as 'one size fits all' approach and thus, a 'tick box' exercise.

This tendency to present a one size fits all approach such as the single set of good governance indicators and guidelines proposed by various international sport organisations such as the IPACS [20] initiative or the good governance codes issued by a number of national sport organisations has also been criticised by Parent et al. (2022). They stated that different sport organisations have different capacities and different contexts to consider and questioned *"how can a one-size-fit all approach to good governance be appropriate, even if it would make policymakers'*

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[20] The International Partnership against Corruption in Sport (IPACS), launched at the IOC's International Forum for Sports Integrity (IFSI) in February 2017, is a multi-stakeholder platform with the mission to bring together international sports organisations, governments, and inter-governmental organisations to strengthen and support efforts to eliminate the risks of corruption and promote a culture of good governance in sport.

and decision-makers' lives easier, when sport organisations within a country do not need to follow all the same laws? Furthermore, sport organisations do not all have the same financial, human, or material capacity. Additional governance processes and expectations can burden already-resource-stretched organisations'' (Parent et al., 2022, p. 181). They further argued that good governance indicators used to promote and measure governance are arbitrary benchmarks that are theoretically driven and empirically unsupported in relation to their efficacy in delivering better governance.

To further support the concept that one size does not fit all they also refer to the different responsibilities and operations of that the different sport organisations, especially the differences between international sport federations (ISFs) and NSFs. These differences include the fact that ISFs are not beholden to a particular government, and the activities of ISFs' directors and their staff, who focus on delivering large international events and setting competition rules, differ significantly from those of elected board members and staff at national. The latter are primarily concerned with fielding national teams, club development, and fundamental operational tasks.

Similarly, Chappelet and Mrkonjic (2019) remind us that governance principles in sport are often inspired by corporate governance, prioritising control mechanisms that are ill-suited for smaller or amateur sports organisations. Imposing universal governance prescriptions is neither appropriate nor effective, as such approaches frequently overlook local organizational, political, and cultural priorities.

- Conceptual ambiguity of governance

Further exploiting these cultural differences Girginov (2019, p. 98) asks "Is it possible to have a universal definition of governance in the vastly culturally diverse world of sport and what might that lead to? He claims that despite the existence of universal definitions of governance their

conceptual and practical value remains questionable resulting in isomorphic influences exerting pressure on sport organisations to imitate organisational characteristics from other culturally unrelated settings. He further argues that governance indicators are lacking consistency, correctness, and replicability.

This plethora of frameworks, definitions and principles is also examined by Chappelet and Mrkonjic (2019) noting that this abundance undermines the clarity of the concept of good governance. They argue that many sport organizations have become lost in a conceptual haze of broad keywords, each carrying its own distinct meaning. This is further echoed by (Geeraert, 2022b) who refers to a conceptual vagueness of 'governance' and 'good governance'.

Girginov (2023) further examines the conceptualisation of good governance and its value for sport organisations. He asserts that good governance in sport is largely based on the governance and management ideology of New Public Management (NPM). An ideology challenged by a number of academics (Goodwin & Grix, 2011; Grix, 2009, Grix, 2010; Grix & Phillpots, 2011; Houlihan & Green, 2009; Phillpots et al., 2010). According to Houlihan and Green (2009)[21] despite being widely rejected as a model for public administration, the NPM ideology continues to influence good governance codes in sport.

This lack of clarity extends to the published literature on sport governance. A primary limitation of existing research is the absence of robust, empirical, and independent evidence addressing the core question: which governance principles should sport organizations adopt and implement to optimize their governance performance (Parent & Hoye, 2018)?

- Quantification of good governance

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[21] As this was analysed in the previous section "Political governance at the national level"

Due to this ambiguity, sport governance lacks sufficient conceptualisation and is generally understood as a set of principles for sport organisations to follow. The uncritical assumption that promoting and measuring good governance enhances the autonomy, democracy, and effectiveness of sport organizations warrants closer examination (Girginov, 2023). As such Girginov (2023) explores the complexities surrounding the quantification of Good Governance Codes (GGC) in sport, focusing on who shapes their production and decides which governance aspects to quantify. It highlights the challenges of using aggregate numbers to comprehend modern sport organisations and how numerical quantification alters established structures and practices. The quantification of GGC demands substantial resources, often prompting reactive compliance measures from organisations, leading to structural changes and increased capacity building needs. However, this approach challenges the autonomy of sport organizations, favouring meta-governance over self-governance. The accuracy and validity of GGC are questioned due to their failure to encompass crucial aspects of organisational work. Despite recent advancements in sport governance literature, scholars have yet to address how the quantification of governance aligns with its theorization. Additionally, the impact of GGC on power relations, autonomy, and day-to-day management within sport organizations remains poorly understood.

The shortcomings of the quantification of good governance have also been acknowledged by Geeraert, (2022b) who authored various sets of indicators that are increasingly applied across different fields to benchmark good governance in international sport federations, national sport federations, and national anti-doping organisations. More specifically he stated *"with certainty that they [indicators] are all flawed: none of them provide a completely valid and reliable quantification of good governance"* (Geeraert, 2022b, p. 152). However, he is not as categorical and demeaning as Girginov. He rather calls for practitioners to *"handle governance indicators*

with care” (Geeraert, 2022b, p. 163). He highlights that governance indicators can serve as an essential part of governance reform strategies, but they should not be the sole focus. While they provide an initial analysis of governance, a deeper investigation is necessary to understand any existing deficiencies fully. Indicators should not dictate a rigid framework for reform, as they may encourage superficial compliance rather than meaningful changes. Instead, organisations should have flexibility to implement governance principles aligned with their culture and context. It's important to recognize the limitations of governance indicators and approach their interpretation critically. Practitioners should inquire about which governance aspects are measured by specific indicators and be aware of the limitations of benchmarking tools, demanding transparency about methodological choices and their consequences. The present thesis acknowledges that governance codes and the related qualifications may not be sufficient in fostering good governance within sport organisations. However, these codes serve as a credible mechanism by which funders, particularly national agencies that fund NSFs, can aid sport organisations to address the legitimacy gap the latter presently face. This study has therefore been designed to examine whether a "stick and/or carrot" approach (punishment or/and reward) is more effective in encouraging compliance with good governance codes, as part of a broader initiative to improve the governance of sport organisations.

2.3.3 Theories of Sport Governance

In the previous section, several theories relating to compliance and the sport governance literature were discussed. Literature was reviewed in accordance with Henry and Lee's (2004) concepts of sport governance (systemic, organisational, and political). Utilising the same concepts or types of governance Shilbury and Ferkins (2020) presented a framework that follows a multi-level view of governance encompassing the individual level, the board level, the organisation level,

and the broader system level of sport organisation interactions. This was chosen *"as a way to 'ring fence' existing scholarship in sport governance"* (Shilbury & Ferkins, 2020, p. 18).

Such an approach to examine the theories underpinning sport governance was considered necessary as sport governance scholars have based their work on a number of different theories (Dowling et al., 2018). Sports governance, as an offspring of corporate governance, has primarily been influenced by agency theory.   However, as noted in Section 2.1, agency theory as the sole theoretical explanation of governance has quickly come under criticism. In recent years scholars researching sport management and governance, in particular, have been basing their work on a number of theories, guided by more established contexts or disciplines such as business, economics, marketing, sociology, and leadership to investigate and comprehend sport management phenomena. In many cases, such research was undertaken by applying a multi-theoretical approach to one particular sport governance phenomenon (Shilbury & Ferkins, 2020).

 Furthermore, Shilbury and Ferkins (2020) identified additional theories, concepts, and models in their review of 49 articles published in the three major sport journals (Journal of Sport Management, Sport Management Review and European Sport Management Quarterly) between 1987 and 2018.   These theories, concepts and models have been associated with Henry and Lee (2004) types of governance, as presented in Figure 2.4.

Figure 2.4: Theories influencing sport governance scholarship
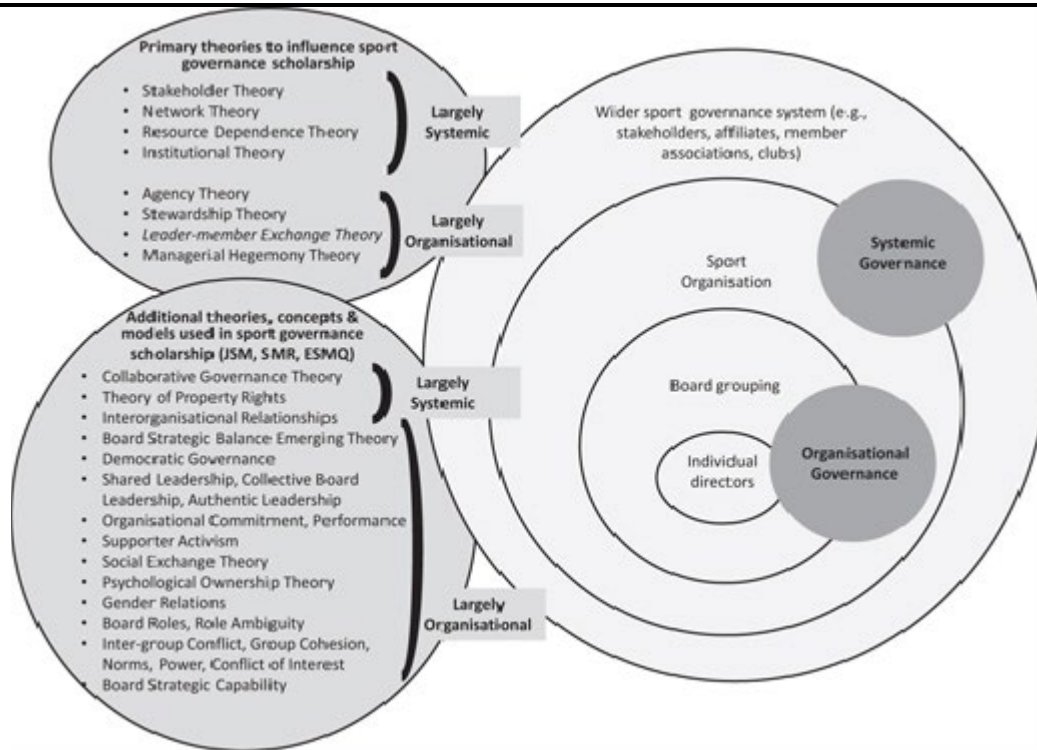
Source: Shilbury and Ferkins (2020, p. 19)

Based on the aforementioned, systemic sport governance was largely associated with stakeholder theory, network theory, resource dependence theory, and institutional theory; organizational sport governance was primarily associated with agency theory, stewardship theory, leader-member exchange theory, and managerial hegemony theory. Similarly, Hoye and Cuskelly, (2007), in their book "Sport Governance", also adopted a multi-paradigm approach to analyse governance in non-profit sport organisations. The theories they presented were mostly the same as those identified by Shilbury and Ferkins (2020). The difference is that Hoye and Cuskelly (2007) did not include the leader-member exchange theory [22] but included the democratic

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[22] Despite not including leader-member exchange theory among the governance theories Hoye and Cuskelly (2007) included it in chapter 9 of their book when discussing leadership.

perspective theory among governance theories. Furthermore, Hoye and Cuskelly (2007) did not use Henry and Lee (2004) categorisation of systemic or organisational governance but rather the notion of internal 'monitoring, which in terms of Henry and Lee's (2004) terminology can be categorised as organisational, and external environment, which in terms of Henry and Lee (2004) terminology can be categorised as systemic.

Hoye and Cuskelly (2007) further analysed the theories identified. For each theory, they included what are the interests of the theory, who are the board members, and what is the board's role. This analysis is summarised in Table 2.3 below. The table is further expanded to include a reference to systemic or organisational governance, along with a commentary on how each theory relates to this research work.

Table 2.3: Theories of Sport Governance

Concept	Theory	Interests	Board members	Board role	Relevance to this research
Systemic Governance	Stakeholder Theory	Diverse range of interests among stakeholders	Stakeholder representatives	Balancing stakeholder needs	Stakeholder pressure to improve governance can prompt NSF boards to adopt governance codes. Boards may also leverage such codes to establish internal and external legitimacy. However, the connection between stakeholder theory and this research remains relatively tenuous.
	Network Theory	Stakeholders and the organisation have different interests	Selected for the ability to influence other organisations	Build relationships with other organisations	A strong network could theoretically help NSFs acquire more resources from their funders, irrespective of their compliance with the Code, this is an element not examined in this study.
	Resource Dependence Theory	Stakeholders and the organisation have different interests	Selected for the ability to influence other organisations	Secure resources to support the organisation	Resource Dependency Theory (RDT) emerges as a highly influential theory within this research. It is particularly pertinent because the behaviour of NSFs is significantly shaped by the issuer of the Code, who simultaneously serves as their primary resource provider. Consequently, compliance with the Code is anticipated to be a means of securing essential resources.
	Institutional Theory	Stakeholders and the organisation have different interests	Influenced by external organisations	Compliance and conformance	As the funders of NSFs link funding with the compliance with the principles of the Code, these external pressures play a pivotal role in shaping the governance framework adopted by NSFs. This influence results in a form of institutional isomorphism, as all NSFs are compelled to adhere to the same governance principles.
Organisational Governance	Agency Theory	Owners and managers have different interests	Owner's representatives	Compliance and conformance	Although clubs can be seen as the 'owners' of NSFs, their voice is relatively weak, and it is unlikely they will be in a position to demand extensive checks and balances to reduce the potential for mismanagement

Table 2.3: Theories of Sport Governance

Concept	Theory	Interests	Board members	Board role	Relevance to this research
					or misconduct by the 'agents' i.e., the board of the NSF.
	Stewardship Theory	Owners and managers have the same interests	Experts	Enhance performance	Similarly, as the need to comply with the Code does not come from within the organisation, nor from owners (clubs) or managers (NSF's board), stewardship theory can't be used to explain conformance with the principles of the Code.
	Managerial Hegemony	Owners and managers have different interests	Owner's representatives	Symbolic	If the CEO or managers of an NSF perceive that adopting the Code aligns with their goals, interests, or vision for the NSF, they may drive the adoption process. But this on its own right is not sufficient to explain the adoption of Codes by NSFs and in not furthered examined in this study.
	Democratic Perspective	Diverse range of interests among stakeholders	Lay representatives	Represent constituents and reconcile differences	Adopting a Code as demanded by an external organisation, even if this is a main funder, is often considered by NSFs as a violation of their autonomy and democratic rights. Thus, the democratic perspective theory cannot be used to guide us in the case of compliance with the Code's principles.

Source: Adapted and extended from Hoye and Cuskelly (2007, p. 12), Shilbury and Ferkins (2020, p. 18)

This study also embraces a multi-theoretical perspective in governance. It employs governance as a means to assess board compliance with a code for good governance in sports organisations (referred to as the "Code") issued by their funding governmental agency. As detailed in Table 2.3, the theories primarily utilised in this study are Institutional Theory (IT) and Resource Dependency Theory (RDT).

Institutional Theory suggests that governance frameworks adopted by organisations are shaped by external pressures, such as coercive, mimetic, and normative pressures, as outlined by DiMaggio and Powell (1983). In the case of this study, government agencies that issued the Code exert these pressures to promote compliance with its principles by linking compliance (or non-compliance) with the Code and the funding provided to NSFs. As NSFs conform to these pressures, they adopt the principles of the Code, leading to the establishment of similar governance frameworks and institutional isomorphism.

Resource Dependency Theory is particularly influential in this research as it recognises that external organisations, particularly government agencies, influence sport organisations' behaviour. The study highlights that national sport federations (NSFs) heavily depend on governmental agencies for a significant portion of their budget. These agencies can exert pressure on NSFs by requiring compliance with the principles of the Code they have issued. Non-compliance may result in the withholding of resources, while compliance may lead to increased funding. Therefore, it is expected that compliance with the Code will be higher when NSFs are more dependent on the Code issuer for funding.

Resource Dependency Theory plays a significant role in this research as it recognises that external organisations, particularly governmental agencies, influence sport organisations' behaviour. As presented in Section 2.3.3 below, NSFs depend heavily on governmental agencies for a significant proportion of their budget. These agencies can exert pressure on NSFs to comply

with the principles of the Code they issued. They may threaten to withhold resources or, conversely, make more available to NSFs based on their compliance. Therefore, a positive correlation between compliance and the degree of dependence on the Code's issuer for funding is expected.

By combining Institutional Theory and Resource Dependency Theory, this study demonstrates how the issuer of the Code, who is also the funder of NSFs, can use both punishment and reward to influence the governance structures of NSFs. The funding agencies can employ a "stick or carrot" approach to encourage compliance with the Code's principles.

2.4 Theoretical Underpinnings of Compliance and Deterrence

Governance has all too often been associated with compliance. As per Ferkins and Shilbury (2020, p. 5): '*The term governance stems from the Latin language and means to steer. In its simplest forms, it requires oversight of the organisation's performance and compliance with relevant regulations and the law'*.

Building upon the multi-theoretical perspective of resource dependency theory and institutional theory, as presented above, the rationale of this research work builds upon how issuers of Codes (primarily governmental agencies as funders of sport organisations) can achieve more effective compliance of governance codes issued for the benefit of NSOs drawing on compliance theory, and general deterrence theory.

2.4.1 DiMaggio and Powell's Institutional Isomorphism

DiMaggio and Powell (1983), building upon Institutional theory,[23] tried to explain why organisations are becoming increasingly similar as they try to change and become isomorphic. Their research revealed that as organisations face institutional pressures and compete not just for

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[23] For a discussion on Institutional Theory see section 2.2.3.

resources and customers but also for political power and institutional legitimacy, for social and economic fitness, they implement similar processes and practices to survive. This increasing similarity of organisations has been described as institutional isomorphism. To explain this isomorphism, DiMaggio and Powell (1983) identified three mechanisms through which institutional isomorphic change occurs: coercive, mimetic and normative. DiMaggio (1983, p. 159) explained the isomorphism of organisations as "*the tendency for organisations to take on the formal and substantive attributes of organisations with which they interact and upon which they depend*". The greater the extent to which an organisational field depends upon a single (or several similar) source of support for vital resources, the higher the level of isomorphism.

This description of the organisational field fits very well with the environment in which NSFs in most countries, including Cyprus, usually operate. Most of them are highly dependent on public funding, face similar institutional pressures, and try to achieve internal (in terms of their immediate stakeholders) and external (in terms of their respective funding agency) legitimacy.

- Coercive isomorphism

DiMaggio and Powell (1983, p. 150) stated that coercive isomorphism "*results from both formal and informal pressures placed on organisations that are dependent upon other organisations or societies in the environment in which the organisation functions*". Additionally, DiMaggio (1983) clarified that coercive isomorphism exists where influential organisations expect dependant organisations to comply with their requirements. Such coercive isomorphism can be found where there are governmental directives (including tax obligations), ethical considerations, cultural expectations, and, perhaps most importantly, for the purposes of this study, dependency on financial resources. DiMaggio (1983, p. 169) highlighted that "*centralised resources within a field increase the potential for coercive pressures to exist*". Similarly, Papadimitriou (1998, p. 169) stated that, as non-profit, sport organisations are externally resource-dependent; they are

"obligated or choose to conform to institutional pressures because of their dominant rationality to mobilise resources." As such non-profit sport organisations are more vulnerable to coercive pressures than other forms of organisational structures.

Therefore, they portray coercive pressure characteristics as non-profit sport organisations are resource dependent for their financial stability within an institutional environment. This dependence on governmental support suggests that these organisations operate within a politically controlled environment (DiMaggio & Powell, 1983). A politically controlled environment enables the government to influence the operations and programs of non-profit sport organisations (Edwards & Mason, 2009). Within the framework of this research, this politically controlled environment results in coercive pressures on non-profit sport organisations, translating into mandatory (or near mandatory) compliance to the requests outlined by the funding governmental agencies, i.e., compliance with the principles of the code of good governance issued. In turn, these pressures create coercive isomorphism within NSFs. As Matheson (1987) identified, for coercive pressures to work, there needs to be continuous observation, supervision and, accountability from the organisation generating the pressure. The issue of the good governance code (Code) by CSO and the possibility that CSO will link the adoption of the Code's principles to the funding NSFs receive in association with the compliance checks that CSO is expected to confirm these coercive pressures.

- Mimetic pressures

Coercion is not the only phenomenon that leads to institutional isomorphism. It is usual for new or less successful organisations to try to replicate the way other organisations in their environment, which they consider more successful or legitimate, operate. This isomorphic inclination is an acknowledgement of mimetic pressures. DiMaggio and Powell (1983) argue that mimetic isomorphism is a reaction to ambiguous goals, uncertain environments, and unclear

organisational objectives. When organisations are faced with situations where the perceived correct course of action is unclear, they may mimic the action of an organisation they deem legitimate (Mizruchi & Fein, 1999). The organisation that serves as a model may be unaware or may have no desire to be copied. It might just serve as a benchmark and a source of suitable, appropriate actions that the borrowing organisation may utilise. The main advantage of mimetic behaviour is that the copying organisation economises on human capital. Decisions derived from mimetic pressures are based on providing a viable solution, with little expense, to a problem resulting from an unclear action in an ambiguous environment (DiMaggio & Powell, 1983).

When it comes to the adoption of the Code by NSFs, factors such as the potential lack of clarity in the Code's principles, the absence of guidelines for their implementation, and the potential shortage of human resources to implement them are likely to exacerbate the mimetic processes. In this case, NSF's might copy another NSF's solution to a problem to relieve uncertainty. In doing so, NSF's will adopt similar operational, structural and program features. This might result in a homogenous population of NSFs within the organisational field of sport organisations.

- <u>Normative pressures</u>

The final pressure identified by DiMaggio and Powell (1983) as causing isomorphism is normative pressure. DiMaggio and Powell (1983, p. 152) explained that normative pressures are *"related to the development of new rules and is linked to the concept of professionalisation and professional networks."* Professionalisation was interpreted by DiMaggio and Powell (1983) as members within a particular occupation collectively defining the appropriate ways in which to act. This is based on the theory that individuals within a specific profession exhibit norms and cultural behaviours associated with their occupation. Normative pressures can affect an organisation's structure.

DiMaggio and Powell (1983) identified two aspects of professionalisation that affect isomorphism. The first is based on formal education and the appropriate norms that educational institutions pass on to their students. The second is the growth and expansion of professional networks within which organisations operate. These professional networks provide a fertile ground for the rapid diffusion of new operational models.

2.4.2   Etzioni's compliance framework

As analysed above DiMaggio and Powel's coercive isomorphism of organisations to an extent stems from the mandatory (or near mandatory) compliance with the requests of organisations with a higher level of power e.g., funding governmental agencies. The concept of compliance is central to this research work as the aim is to examine if compliance with a Code is better achieved with a "stick or carrot". With respect to the compliance aspects of this research, Etzioni's compliance framework has been utilised.

This compliance theory is an approach to organisational structure that integrates several ideas from the classical and participatory management models. Etzioni developed an innovative approach to organisational structure that he described as compliance theory. Etzioni (1975, p. 3) defines compliance as: *"a relation in which an actor behaves in accordance with a directive supported by another actor's power, and to the orientation of the subordinated actor to the power, applied."* He further states*: "Power is an actor's ability to induce or influence another actor to carry out his directives or any other norms he supports"* (Etzioni, 1975, p. 4).
 Furthermore, Etzioni, in his earlier work (Etzioni, 1964, p. 58), stated that: "*… organisations require formally structured distribution of rewards and sanctions to support compliance with their norms, regulations, and orders."*

As such, these definitions suggest that compliance combines a structural and a motivational aspect. The structural component is one actor's power or ability to induce another to conform to his directives. The orientation, involvement, or commitment of lower participants resulting from the power that is applied represents the motivational element.

Within the context of this power hierarchy, Etzioni's model serves as an ideal framework for investigating how the issuer of a governance code, primarily through its role as the primary funder, can leverage its influence to prompt a National Sport Federation (NSF) to align its behaviour with the principles outlined in the Code. This dynamic plays out within the traditional pyramid of sport governance in Europe [24].

The compliance theory developed by Etzioni was an innovative approach to the structure of organisations. He classifies organisations by the type of power they use to direct the behaviour of their members and the type of involvement of the participants. Etzioni (1975, p. 5) identifies three types of organisational power: coercive, remunerative, and normative which organisations use in general to exercise control. First, *'coercive power rests on the application or the threat of application, of physical sanctions that causes infliction of pain, deformity, death, and frustration, by controlling the satisfaction of needs such as food, sex, comfort, and the like'*. Coercive organisations are organisations in which coercion is the major means of control over lower (in the hierarchy) participants, Etzioni (1975, p. 27). Examples of organisations that utilise coercive power to control participants are almost all prisons, custodial mental hospitals, and basic training units in the military (Etzioni, 1968). Examples of coercive power include threats of write-ups, demotions, pay cuts, layoffs, and terminations if employees do not follow orders. In our case, a

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[24] For an analysis of the traditional pyramid of sport governance in Europe see for example García, 2009, Geeraert, Mrkonjic and Chappelet, 2015 and EU Council of Ministers Resolution 2021.

NSO will follow the principles of a Code issued by its funder to avoid the loss of funding (creating discomfort or frustration) caused by the use or threat of use of coercion.

Second, '*remunerative power* (often referred to as utilitarian power when used to describe an organisation)[25] *is based on control over material resources and rewards through allocation of salaries and wages, commissions and contributions, fringe benefits, services and commodities'* (Etzioni, 1975, p. 5). As per Etzioni, utilitarian organisations are organisations in which remuneration is the major means of control over lower participants (Etzioni, 1975, p. 31). Most business firms emphasise such extrinsic rewards. These rewards include salary, merit pay, fringe benefits, working conditions, and job security. Besides many business firms, utilitarian organisations include unions, farmers' co-ops, and various government agencies (Lunenburg, 2012). As such remunerative or utilitarian power expects that lower-level members (persons or organisations in any hierarchical structure) will comply with the wishes, norms, and decisions of an upper-level participant in this hierarchy. Thus, remunerative power employs extrinsic or remunerative rewards to entice subordinates to secure compliance. In our case, a NSO is expected to follow the principles of a Code issued by its funder to enjoy remunerative rewards (i.e., secure existing funding or additional funding) that might be attached to compliance with the Code's principles.

The third power described by Etzioni is normative power. Etzioni (1975, p. 5) states that *"normative power rests on the allocation and manipulation of symbolic rewards and deprivations through employment of leaders, manipulation of mass media, allocation of esteem and prestige symbols, administration of ritual and influence over the distribution of 'acceptance' and 'positive*

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[25] Bracket added see Etzioni 1975 p.23

response'". He describes normative organisations as organisations in which normative power is the major control source over most lower participants. He further clarifies that such normative power can be based on manipulating esteem, prestige, symbolic rewards, and deprivations. Such techniques could include *"the employment of leaders, manipulation of mass media, allocation of esteem and prestige symbols, administration of rituals, and influence over the distribution of acceptance and positive response"* (Etzioni, 1975, p. 5). Normative organisations are organisations where normative power is the primary source of control over most lower participants. In these cases, compliance in based on the internalisation of directives as legitimate. Religious organisations, such as churches, monasteries, convents, schools, universities, and social unions, are examples of organisations that use normative power (Etzioni, 1968). Lunenburg (2012) suggested normative power controls through the allocation of intrinsic rewards, such as interesting work, identification with goals, and contributing to society. Thus, it can be concluded that organisations' use of normative power is based on promoting and sharing values to which their members subscribe and encouraging subordinates to see it as the right thing to do.

In the context of this research, if the authority issuing the code of good governance is perceived as having the legitimacy to do so, and if the code is founded on normative, widely accepted ethical principles, then NSFs are more likely to adopt the Code because it is regarded as the morally correct course of action. [In contrast to a coercive approach where NSFs would adopt the Code out of fear of losing funding or as a utilitarian response, driven by the expectation of gaining funding.]

Despite the wide acceptance and application of Etzioni's approach to the structure of organisations in reference to compliance, it has not been without its critics, especially in the early years of the theory. Hall, in his book "Organisations: structure and process" (Hall, 1982) p. 41 refers to Burns (1967), Burns (cited in Hall,1982) stating that reasons for congruence or

incongruence are not well explained. He further cites the work of Hall, Haas, and Johnson (1967b) who found that it was not easy to place some organisations into Etzioni's categories. In addition, they found that the typology did not relate well to important structural characteristics such as complexity or formalisation. He also mentions Clegg and Dunlerly's (1980, pp. 142-54) (Clegg and Dunlerly (cited in Hall, 1982); criticism of Etzioni's scheme on the grounds of its logical consistency and its inattention to organisational environments. Perrow's book "Complex organisations: a critical essay" also criticises Etzioni with "*… neglect of wide ranges of differences within the types.*" He views his typology as tautological. He supports this by stating, *"Some churches and schools, for example, are run like factories; some like prisons."* (Perrow, 1986, p. 141).

2.4.3   Adoption motivation theories

To address why and how new practices, such as the adoption of a Code, are implemented, researchers have turned to theories of adoption motivation. Early studies in this field suggest two distinct approaches to explaining adoption motivation (Strang & Macy, 2001). The first approach, rooted in economic literature, aligns with the rational actor model. According to this model, organisational adoption is primarily driven by the perceived likelihood of benefits such as increased reputation, prestige, or profits, the reward or "carrot" in this study, and by the perceived threat of losses incurred by non-adoption, the punishment or "stick", (Mensi-Klarbach et al., 2021). This perspective is significantly influenced by Tolbert and Zucker (1983) classical institutional model of practice implementation, which proposes that early adopters are motivated by economic imperatives and view the practice as technically effective ('efficiency'), while later adopters respond to the social imperative of 'legitimacy,' seeking to comply with environmental expectations, as also discussed by DiMaggio and Powell (1983) (see previous section). Addressing

criticism that the classical institutional model oversimplifies by isolating reward and punishment motives, Kennedy and Fiss (2009) extended institutional theory's account of diffusion by examining the interplay between economic and social considerations in adoption decisions. Their findings suggest that both early and later adopters are influenced by logics of efficiency and legitimacy, which complement rather than conflict with each other. In other words, the motivation to adopt new practices is shaped by both potential gains (reward) and potential losses (punishment).

The effect of Kennedy and Fiss (2009) findings on the implementation of code recommendations, specifically regarding compliance with gender inclusion provisions, has been examined by Mensi-Klarbach et al. (p. 5, 2021) . They argue that "companies comply with code recommendations either because of expected benefit or the perceived danger associated with non-adoption" (p. 588). This proposition aligns with this thesis's concept that both reward and punishment can promote the adoption of a Code by NSFs as issued by national agencies or other hierarchy superior institutions.

2.4.4   Resource Dependency Theory

The ability of *Coercive power* to achieve compliance, as described by Etzioni above, can be further examined through the Resource Dependence Theory (RDT) lens. RDT has its roots in Emerson's classic "Power-Dependence Relations" (Emerson, 1962) and Pfeffer and Salancik's (1978) "*The External Control of Organisations*". The fundamental assertion of resource dependence theory is simply stated as, "*The key to organisational survival is the ability to acquire and maintain resources*" (Pfeffer & Salancik, 1978, p. 2). Further elaborating on it, this assertion is based on three basic assumptions. Firstly, any organisation needs resources to survive and achieve its purpose. Secondly, an organisation, beyond generating wealth, can obtain resources from its environment (usually other organisations). Thirdly, the dependence on these other

organisations (and its inverse) shapes inter-organisational relationships. As such, organisations are driven to comply with the requirements of strategic resource providers to deal with the pressures of uncertainty and scarcity in their environment (Froelich, 1999). These resources can be material (money, human resources), information and social or political support (legitimacy). Following these three assumptions, especially the third one, the balance of power usually favours the organisation that possesses what other organisations need. In these situations, the organization can encourage adherence to its demands by implementing a negative reinforcement strategy. This strategy involves withholding valuable resources, specifically funding, from the dependent organizations (NSFs) with the expectation of promoting compliance.

Similarly, under the RDT perspective, utilitarian power can be employed to promote a positive reinforcement strategy by providing additional resources to the dependent organisation in exchange for compliance. In our case NSFs depend heavily on governmental agencies for a significant proportion of their budget. As such governmental agencies can exercise coercive pressure on NSFs by requiring compliance with the principles of the Code issued, threatening that failure to do so will result in the withholding of resources (punishment) or inversely more resources can become available to them (reward) if they comply. Therefore, compliance may be expected to increase proportionally with the degree of NSFs' dependence on the issuer of the Code for funding.

2.4.5   General Deterrence Theory and positive enforcement

Negative enforcement strategies, as stated above, which incorporate the notion of punishment, can be further explained using the general deterrence theory (GDT) that draws from theories in criminology. The proposition of GDT is that increases in the certainty, severity, or swiftness of punishment result in a decrease in the unwanted behaviour of the population at large.

The seminal work in the economics of crime and enforcement literature is that of Becker (1968). In his model, rational decision-makers compare the expected gain from offending with the expected penalty from offending. This choice is also affected by the *Certainty of control* where higher certainty, i.e., a higher probability that the violation (of the Code's principles here) will be detected, is expected to lead to higher compliance or deterrence; thus, it is an influential factor that may contribute to the effectiveness of the enforcement strategy of policy compliance. Friesen summarises that *"Risk-averse individuals, on the other hand, are deterred more by increases in the severity of punishment than an equivalent increase in the probability of punishment, while risk lovers are deterred more by increases in the probability of detection"* (Friesen, 2012, p. 399).

However, many fear punishment may result in undesirable behaviour, leading to hostility and sour relationships between organisations. As a result, they have looked to rewards to achieve compliance. Drawing from theories of organisational literature, some scholars support such positive enforcement strategies. They argue that rewards can be an alternative way to control and steer behaviours (Gerhart & Milkovich, 1990). In contrast to punishment, rewards can promote harmonious rather than hostile relations. However, such positive enforcement strategies come with their own drawbacks. Kohn (1993) argues that rewards do not create a lasting commitment. They only achieve a temporary change in the outcome. He further notes that rewards, very much like punishment, are just another way to manipulate behaviour, *"…not receiving a reward one had expected to receive is also indistinguishable from being punished. Whether the incentive is withheld or withdrawn deliberately, or simply not received by someone who had hoped to get it, the effect is identical … The new school, which exhorts us to catch people doing something right and reward them for it, is not very different from the old school, which advised us to catch people doing something wrong and threaten to punish them."* (Kohn, 1993, p. 56).

Therefore, this study investigates how coercive power (punishment) and utilitarian power (reward) interact with certainty of control when NSFs adopt Codes issued by funders, such as governmental agencies. To the author's knowledge, no previous research has examined this interaction at any level, be it local, national, or international. The primary objective of this study is to empirically explore the combined effects of punishments and rewards, taking into account the influence of certainty of control within the context of adopting Codes by NSFs.

2.4.6 Punishment (Hypothesis 1)

The GDT theory presented above proposes that punishment or sanctions can be a way to deter actors (persons or organisations) from engaging in unwanted behaviour. For this, however, to be successful and reduce unwanted behaviour, potential violators must be aware of the controlling organisation's intention to monitor and control unwanted behaviour. As Becker (1968) and Friesen (2012) have indicated, the deterrence of undesirable behaviour or compliance is significantly affected by the certainty and the severity of the expected punishment. Certainty of punishment is where there is a higher probability that a violation (or non-compliance with the Code's principles in our case) will be detected and punished. The severity of punishment, on the other hand, is about the magnitude of the sanctions that will follow the detection of non-compliance (or the reduction in the funding in our case). Therefore, potential violators, aware of the likelihood of severe punishment, are more inclined to choose compliance over non-compliance. If not, and they believe the benefits of non-compliance are substantial, they may succumb to the lure of non-compliance.

For example, not monitoring conflicts of interest, e.g., buying sport equipment from a board member without issuing tenders or the absence of term limits with board members remaining on the board for an undefined period. Research in the area of punishment has indicated that for

coercion or punishment to have an effect, this needs to be relatively severe from the beginning, i.e., for punishment to be effective, it should start at a relatively high level (Arvey & Ivancevich, 1980). They further state that *"where the aversive stimulus is relatively weak, subjects may adapt to the stimulus level and continue to emit the punished behaviour"* (Arvey & Ivancevich, 1980, p. 126). Based on the above:

Hypothesis 1: The extent to which resources (funding) are deprived from NSFs because of not compliance with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.

2.4.7 Reward (Hypothesis 2)

A different way to achieve compliance is through remunerative power (Etzioni, 1975). The organisation that controls the resources can use rewards to promote compliance. Based on empirical and theoretical findings, several researchers have proposed this idea of control by promoting compliance through rewards. It has been found that rewards can help improve performance, productivity, creativity, and compliance (Eisenberger & Cameron, 1996; Etzioni, 1975; Levinthal, 1988). Eisenberger and Cameron (1996) have shown that despite the criticisms of the effect of reward on intrinsic task interest and creativity, the use of small or large rewards can be effectively used to increase generalised creativity. At worst, if a reward is offered and subsequently eliminated, the person generally spends as much time on the activity as they did before the reward was introduced. Building on agency theory, Levinthal (1988) has argued that since agents (in this case, NSFs as custodians of the sport) are rational and motivated by self-interest, they will aim to maximise their payoff without necessarily seeking the maximisation of the payoff of the principal (the funding agency aiming at improved governance, through Code compliance for the benefit of the sport). To address this inherent goal conflict, as the principal cannot enforce a specific effort level, they must strategically manipulate the agent's self-interest

by offering rewards. Consequently, the extent and nature of the rewards provided by the principal (the funding agency) are anticipated to significantly influence the effort and behaviour of the agent (the board of the NSF).

This divergence in the goals of different actors within a given environment or organisation has also been examined though the lens of control theory. Ouchi (1979) discussed the problem organisations face in obtaining co-operation among a collection of individuals or units who share only partially congruent objectives. He identified three types of organisational control: market, bureaucracy, and clan. Under market control, the norm of reciprocity[26] is sufficient to achieve compliance, and if honesty cannot be taken for granted, the high costs of surveillance can be so high as to lead to market failure. Free market prices should be sufficient information to achieve market control. Where markets fail (or cannot be used) as control mechanisms, they are often replaced by a bureaucratic form. Under bureaucratic control, the norm of reciprocity is further extended as individuals or units give up autonomy (or some elements of it) in certain areas to organisational superiors (legitimate authority) by allowing them to direct their activities and monitor their performance. In these cases, rules are established to determine and direct behaviour to achieve control. The third type of control, the clan, is based on the norm of reciprocity and legitimate authority but is further strengthened by shared values and beliefs. As the price control mechanism of the market and the rules of the bureaucracy are absent, the clan relies on a common agreement between its members on acceptable behaviour. Applying these types of control in the

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[26] The norm of reciprocity requires that we repay in kind what another has done for us. It can be understood as the expectation that people will respond favourably to each other by returning benefits for benefits and responding with either indifference or hostility to harms.

context of the NSFs operating environment, we can see a close association with bureaucratic control and, to a lesser extent, with clan control.

Ouchi (1979) proposed that there are two ways to achieve control. One approach is to select individuals who inherently align with your requirements, which, in this case, is not feasible because National Sport Federations (NSFs) are autonomous organisations, and funding agencies cannot dictate the composition of NSF boards or their employment decisions. The other method, which is applicable in our context, involves establishing managerial systems to provide guidance, oversee, and assess the performance of individuals. He warned, however, that a control mode which depends heavily upon monitoring, evaluating, and correcting in an explicit manner is likely to offend people's sense of autonomy and self-control and, as a result, will probably result in an unenthusiastic, purely compliant response. Thus, the whole concept of enforcing a Code to improve governance could become merely a tick-box exercise, failing to achieve the real change that the introduction of the Code aimed for. Walters and Tacon (2018) also raised a similar concern when researching the adoption of Codes in the context of a national governing body of sport in the UK.

Ouchi (1979) further concluded that to achieve control under the bureaucracy control type there is a need to monitor the behaviour and output of participants through compliance, which is very much the case in monitoring the adoption of good governance principles by NSFs. These control modes are exercised via specific mechanisms, such as rewards based on following rules and procedures (Kirsch, 1997). These can include financial incentives. Furthermore, control theorists assume that regulating behaviour using such controls is feasible because organisations can manipulate incentives to ensure compliance (Liang et al., 2013). However, even when the governance principles of the code (Code) are well known, and NSFs compliance is monitored and evaluated, compliance would be sub-optimal in the absence of an incentive scheme for compliance

(Boss *et al.*, 2009). NSFs could assume that compliance with the Code is not important, as whether you comply or not has no effect. However, to date, all funding agencies that have issued Codes have not included such incentive mechanisms but rather have limited themselves to penalties for non-compliance (e.g., Flemish Sports Agency, 2016; Sport UK and Sport England, 2016).

In addition, research on ethical conduct and compliance suggests that although ethical performance and compliance are not easy to measure, perceptions that ethical conduct and compliance are valued and would be rewarded are critical to creating an ethical culture that can significantly improve the effectiveness of compliance programs (Trevino *et al.*, 1999). In the same way, to encourage NSFs to adopt the Code, funding organisations can reward compliance, promoting a culture of improved governance. It is, therefore, possible that in the absence of rewards, the control signal for the adoption of the Code will be weak, and the issue of the Code might fail to improve governance. A reward system attached to the adoption of the Code will indicate that compliance with the Code is nearly mandatory, increasing the chances that NSFs will adopt the principles foreseen by the Code and comply with it.

Hypothesis 2: The level of reward for complying with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.

2.4.8 Certainty of Control (Hypothesis 3)

The two previous sections have discussed the effects of punishment and reward to achieve compliance. According to the literature, the effectiveness (if any) of punishment or reward will be affected by the certainty that there will be a punishment or reward due to compliance or non-compliance.

Deterrence studies from criminology and sociology suggest that monitoring and surveillance increase the perceived certainty of sanctions. There is also evidence that such

techniques increase perceived sanction severity. Kinsey (1992) found that prior exposure to Inland Revenue Service (IRS) auditing practices was positively associated with the perceived severity of tax evasion penalties. Other studies reported a positive relationship between IRS audits and tax compliance, consistent with the notion that monitoring increases sanction perceptions (D'Arcy et al., 2009).

Two further elements that influence how effective punishment is in achieving compliance are the time between the event and aversive stimulus, i.e., punishment (timing) and the schedule of punishment (Arvey & Ivancevich, 1980). The effectiveness of punishment is expected to be enhanced when the aversive event is delivered close, in time, to the punished response. In other words, the punishment should be applied as soon as the undesirable behaviour is detected. Waiting to take punitive action may not be as effective at eliminating the undesirable response as an immediate action. Administering punishment on a continuous schedule—consistently after every detected undesirable response—also increases its effectiveness. In the context of Code compliance, if NSFs are aware that compliance or non-compliance with the principles of the Code is continuously monitored and punished immediately and consistently, their intention to comply with the Code is expected to increase.

As a result, an organisation's deterrence efforts directly impact compliance behaviour. If individuals or units are aware that compliance behaviour is not valued, and non-compliance is not investigated they may adhere to any current non-compliance behaviours because the chance of being caught is low. High certainty of control sends signals of the organisational efforts to monitor, evaluate, and punish noncompliance behaviours. Consequently, their intention to comply will increase because the chance of being caught and punished is high (Chen et al., 2012).

The importance of the certainty of rewards can be examined through Vroom's 'Expectancy Theory' (Vroom, 1964). Expectancy theory argues that the strength of a tendency to act in a certain

way depends on the strength of an expectation that the act will be followed by a given outcome and on the attractiveness of that outcome to the individual (Robbins & Judge, 2017). The belief in the likelihood that one will obtain the reward if performance is as expected is an influential factor in motivation. Vroom describes this concept under the term of instrumentality (Vroom, 1964). This instrumentality will be enhanced if it is supported by polices or guidelines that strengthen the certainty that performance will be rewarded. Based on this, we can formulate the assumption that the effort to shape and maintain desirable behaviours and attitudes towards such behaviours often needs to associate reward with certainty.

As such, both reward and punishment can be used as control mechanisms to achieve compliance with the Code from the NSFs. With Certainty of control being the probability that the enforcement strategy will come into effect (Chen et al., 2012). If NSFs believe that there is a high certainty of control (i.e., they will be controlled) associated with compliance or noncompliance, their intention to comply with the Code is expected to increase.

Hypothesis 3: Certainty of control will positively influence the intention to comply with the principles of the good governance code (Code).

2.4.9   Interactions: Punishment × Certainty of Control and Reward × Certainty of Control (Hypotheses 4 and 5)

According to Porter and Lawler (1968), decision-making is a utility function. Under uncertainty following the aim for utility, when individuals or units are called to decide with reference to a specific event beyond looking at the event itself, they will also look at the probability that the event will take place. As such, they will try to assess both how likely the event is to occur and, if it does, what its potential impact is. Therefore, when NSFs decide whether to adopt the principles of the Code, they estimate and indirectly consider how their utility function might be affected by a gain (reward) or a loss (punishment). In doing this, however, they evaluate not only

the positive or negative effects of reward or punishment but also the chances of reward or punishment (Chen et al., 2012)

Moreover, as per Anderson (1999), organisations are complex entities exhibiting nonlinear patterns and behaviour within and between organisations. These nonlinear interactions are key to the emergence of a pattern. A probability of occurrence is allocated to each interaction to specify a particular pattern of interactions.

In Section 2.3.4, where deterrence theory and positive enforcement were discussed, it was stated that the possibility of the violation being detected positively affects compliance (Becker, 1968). This notion is further supported by the utilitarian perspective. Grasmick and Bryjak (1980) highlighted this interaction effect of certainty and severity. They argued that the severity of punishment would deter non-compliance only in cases with a high certainty of punishment. *"Only those who perceive the certainty of apprehension as relatively high will be influenced by their perceptions of the seriousness of punishment if apprehended. Whatever the perceived consequence of being caught, it is not a potential cost if people believe they will not be caught"* (Grasmick & Bryjak, 1980, p. 473).

In the same way, and perhaps with a stronger correlation, positive enforcement strategies, i.e., rewards are affected by certainty and the way they are distributed [*"perceptions of how rewards are distributed are even more important than their perceptions of the distribution of punishments (that violators are detected and punished)"* (Trevino *et al.*, 1999, p. 148)]. Their effectiveness is further affected, positively or negatively, by the probability that rewards will actually be given to those that comply with *"both probability and amount of reward strongly influenced choices"* (Edwards, 1956, p. 187).

Based on the above, it is proposed that the certainty of enforcement impacts an individual's judgment about the effectiveness of reward or punishment: the magnitude of the difference in reward or punishment will be moderated by the certainty of control.

Hence, the subsequent two hypotheses are proposed:

Hypothesis 4: The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of punishment contexts in high certainty of control environments is smaller than in low certainty environments.

Hypothesis 5: The impact of reward on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of reward contexts in high certainty of control environments is smaller than in low certainty environments.

Formulating this double hypothesis is necessary because NSFs' attitude towards risk is unknown. Simplifying the model by simply multiplying punishment and rewards by their respective certainties, without considering their interaction, would have assumed a risk-neutral position. In other words, if we multiply punishment (or reward) by the certainty factor to estimate the expected compliance value, using this value in the quantitative model would imply that NSFs are risk-neutral. If this were the case, NSFs would be indifferent between a small reward with high certainty or a large reward with low certainty as both scenarios yield the same level of expected value, something that in the real world would be unlikely.

2.4.10 Interaction: Punishment × Reward (Hypothesis 6)

Up until now, punishments and rewards have been discussed in isolation as ways to achieve compliance. In reality, however, it is very common for organisations to use both methods for more effective compliance: *"All patterns of compliance exist in most organisations",* as Etzioni (1975,

p. 23) noted. Using a mixture of punishments and rewards both at the organisational and individual level (not necessarily at the same intensity) to achieve a desired outcome has been researched by Andreoni et al. (2003), who concluded that there are *"substantial demands for both punishments and rewards"* (Andreoni et al., 2003, p. 893). However, based on Etzioni (1975), Chen et al. (2012, p. 168) stated that "*When both reward and punishment are in the policy enforcement scheme, the joint effect is not as simple as adding up the two effects or cancelling each other. In many cases, punishment and reward interact with each other"*. Molm (1994, p. 79), by citing *A. Axelrod (1983),* further highlighted this interaction by stating that "*Punishment is most effective when combined with rewards-that is, when undesirable behaviours are punished, and desirable behaviours are rewarded in the context of reciprocal exchange, that implies punishing the partner's failure to exchange and rewarding the partner's exchange"*. Research by Andreoni et al. (2003) indicated that rewards alone are relatively ineffective and Molm (1994) further highlighted this based on previous research by stating that the use of punishment could provoke hostility and retaliation instead of compliance, eliminating any positive effects of punishment. Using only coercion power to achieve compliance is also viewed negatively by lower participants (to use Etzioni's terminology) as punishment could be *'regarded … as duress, and that interpretation then mitigated perceptions of dispositional causation'* (Greitemeyer & Weiner, 2008, p. 419). Andreoni et al. (2003, p. 901), examining punishments and rewards separately and jointly, concluded that rewards and punishments complement each other. *'The stick can help by getting people to move away from perfect selfishness and to test the waters of cooperation. The carrot can then take over by encouraging further cooperation, rendering the stick a rarely used but necessary tool'*. The ineffectiveness of coercive control mechanisms alone to produce the desired compliance was also researched by Sisaye (2005) and Trevino *et al.,* (1999). Sisaye (2005) endorsed the notion that effective coercion requires the accompaniment of remunerative incentives.

Similarly, Trevino *et al.* (1999, p. 143), in researching ethics/compliance programmes commented that *"people do what's rewarded and avoid what's punished"* and proposed a reward system that support ethical conduct mechanisms but at the same time develop coercive control mechanisms to follow up and punish noncompliance.

The findings of the interaction of rewards and punishments by a number of researchers showcase the importance of developing compliance systems that blend both. The sole use of punishment as a compliance mechanism provides limited space for individuals or units to base their decisions on, i.e., either comply or face the punishment of non-compliance (the loss of funding by NSFs in our case). Adding rewards to the compliance equation expands the choices of the lower participants (the NSFs in our case). NSFs (for example) can now choose to forego the reward and not comply. The level of reward or punishment is also significant in achieving compliance. Chen et al. (2012, pp. 168–169) proposed that *'when the reward level is low, the levels of punishment more dominantly influence compliance intention than when the reward level is high'*. Based on the above discussion, the sixth and final hypothesis is developed:

Hypothesis 6: The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by reward: the difference in impact on intention to comply between mild and severe levels of punishment contexts in low levels of reward environments is greater than in high levels of reward environments.

Having established the six hypotheses of the research, the research model for this concept is shown in Figure 2.5 below:

Figure 2.5: Research Model
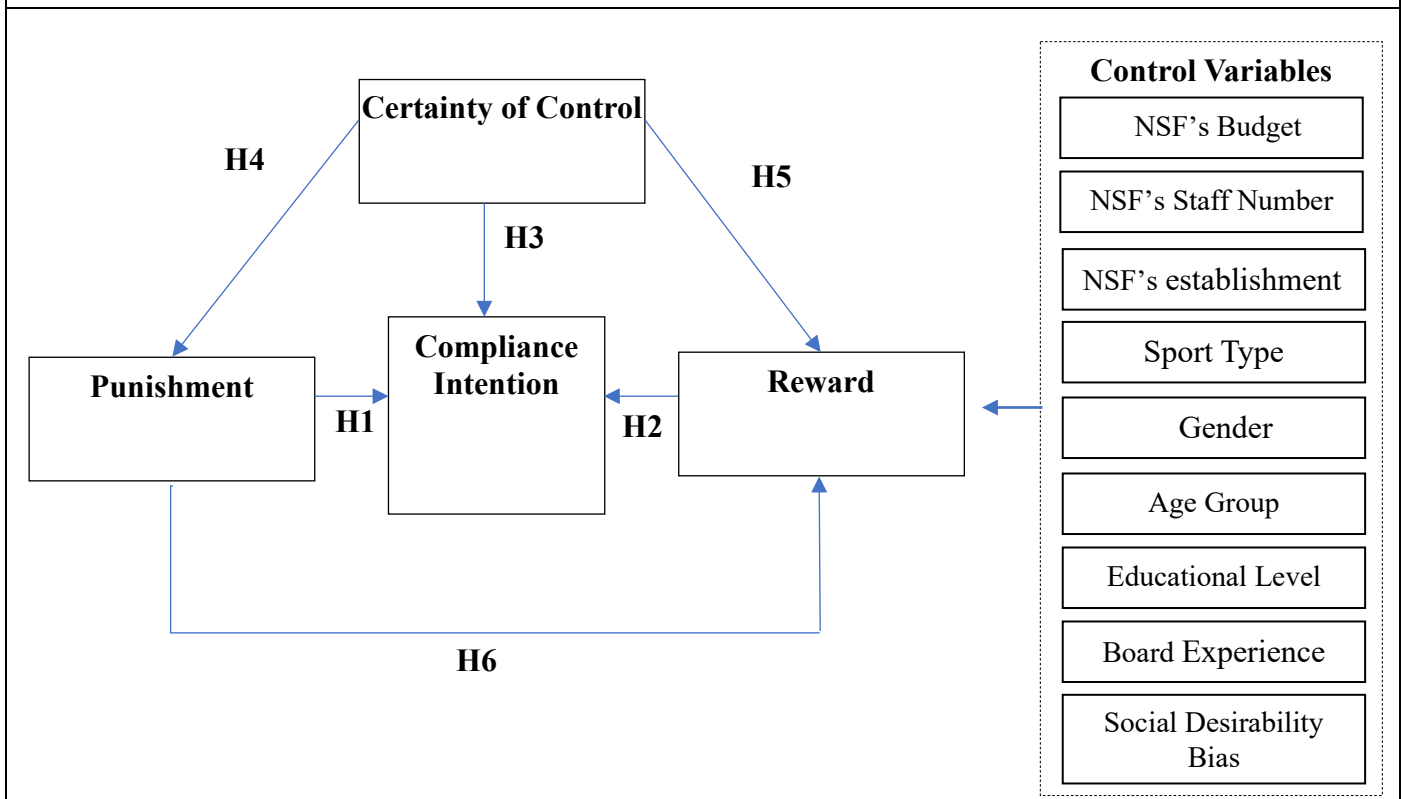
Source: Adapted from Chen et al. (2012), Xue and Wu (2013) and Liu et al. (2022)

2.5   Concluding Section

The analysis of sport governance literature followed the three interrelated concepts of sport governance as proposed by Henry and Lee (2004), i.e., systemic, organisational, and political. As these three concepts are interrelated, it is hard to argue that this study falls under one of the three concepts. On the contrary, what is claimed here is that this research has elements of all three concepts.

National agencies, as the primary funder of NSFs or supranational bodies such as the EU, alarmed by the failures in governance of sport organisations (*systemic governance)* at the national and, perhaps most notably, at the international level, have been increasingly issuing codes or principles or recommendations of good governance *(political governance)*. Examples include

Australia, Belgium (Flanders), Canada, Cyprus, New Zealand, Poland, UK, EU Commission Expert Group on Good Governance, EPAS [27], International Olympic Committee through the IPAC [28] initiative, ASOIF [29] etc. Through the issuance of Codes, all these stakeholders are essentially trying to replace *(the lost)* trust in individuals by developing confidence in the systems (Houlihan & Green, 2009) by improving its governance. This has been based on a belief that pressures outside sport may be the best way to enhance sport ***organisations' governance*** practices and performance (Geeraert et al., 2014).

The overarching research objective of this study is to empirically investigate the combined impacts of penalties and incentives, influenced by the level of control certainty, in the context of NSFs' adoption of Codes. To the best of the author's knowledge, this specific aspect of sport governance has not been previously examined, and much of the literature cited above does not directly address this particular facet of sport governance.

However, a review of this literature was essential for two reasons. First, it was necessary to develop the concept of governance that the study aims to enhance. Second, it played a vital role in establishing the roles of national or supranational organisations and the boards of sport organisations, which are the central actors in this research.

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[27] Enlarged Partial Agreement on Sport (EPAS) is the sport arm of the Council of Europe it provides a platform for intergovernmental sports co-operation between the public authorities of its member states. It also encourages dialogue between public authorities, sports federations and NGOs. This contributes to better governance, with the aim of making sport more ethical, more inclusive and safer.

[28] The International Partnership against Corruption in Sport (IPACS), launched at the IOC's International Forum for Sports Integrity (IFSI) in February 2017, is a multi-stakeholder platform with the mission to bring together international sports organisations, governments, and inter-governmental organisations to strengthen and support efforts to eliminate the risks of corruption and promote a culture of good governance in sport.

[29] ASOIF - Association of Summer Olympic International Federations

To take this research forward the theories underpinning compliance and good governance have been reviewed. Taking a multitheory perspective in compliance and governance, the theories of Resource Dependency Theory (RDT) and Institutional Theory are used in the effort to identify if a "stick or carrot" (punishment or reward) approach, as influenced by control certainty, is better to be followed in order to promote compliance with Codes or principles in the effort to improve the governance of sport organisations. Also, the potential interaction between punishment and reward is examined based on the six hypotheses that have been presented in sections 2.3.5 to 2.3.9.

The integration of these theories is proposed by the researcher to comprehend the complex dynamics involved in the NSF's adherence to the code. This integrated theory provides a holistic explanation of the factors that influence NSFs' compliance with the governance code.

Certain aspects of the findings, such as the compliance of NSFs with the demands of a hierarchically superior organisation (governmental agencies as funders of the NSFs), align with Institutional Theory. However, Institutional Theory alone is insufficient to explain the entirety of factors affecting compliance in NSFs. While it effectively addresses the need for NSFs to interact with the external environment and engage in resource co-optation, it does not adequately account for other compliance-related aspects.

On the other hand, RDT offers valuable insights into the necessity of resource co-optation and its role in compliance with the governance code. However, RDT alone lacks a comprehensive explanation for other factors influencing compliance in NSFs.

Combining both perspectives allows us to overcome the limitations of each theory and produce a more robust understanding of the compliance behaviours exhibited by NSFs in relation to a Code. This integrated approach facilitates a comprehensive analysis of the factors that contribute to or hinder compliance in NSFs, ultimately enhancing our understanding of NSFs' adherence to the governance code.

Chapter 3

Philosophical Stance and Methodology

3.1   Introduction and purpose

The research aim of this thesis is to delve into the factors influencing the compliance behaviour of national sport federations (NSFs) with a good governance code (Code). Specifically, it seeks to investigate whether NSFs are more likely to adhere to the principles outlined in the Code when presented with a reward for compliance or face a sanction for non-compliance. Furthermore, the impact of the certainty that the funding organisation responsible for issuing the Code, will assess the NSFs' adherence to its principles is examined.

The factors that influence the compliance of NSFs with a Code are of paramount importance to national sport governing bodies such as sport ministries. By understanding these factors sport policy can be designed in a way that maximises the possibility that NSFs will comply with a Code.

Building upon the foundation laid in the previous chapter, which extensively explored the concept of good governance in sport and delved into the theoretical underpinnings of compliance and deterrence supporting a "carrot or stick" approach, this chapter takes a step further by presenting the methodology chosen to undertake this research.

In order to ensure the validity and reliability of the study, careful consideration has been given to the philosophical and theoretical influences on the methodology. These influences have guided the selection of appropriate research sites and participants as well as the methods employed for data collection and analysis. One critical aspect of this chapter is developing and validating the questionnaire used to gather relevant data. The process of constructing the questionnaire involved selecting appropriate scales and ensuring their suitability for measuring compliance behaviour and the impact of rewards, sanctions, and the certainty of assessment by the funding organisation. Additionally, this chapter highlights the steps taken to conduct and analyse the research effectively.

To provide a comprehensive understanding of the research perspective, the subsequent section of this chapter outlines first the study's research setting and the chosen research perspective that underpins the entire thesis. The research setting aims to provide the reader with background information on the governance of NSFs in Cyprus and the efforts of the CSO to improve the governance of the NSFs it funds. The research perspective serves as a guiding framework for the subsequent sections, allowing for a coherent and integrated approach to examining the compliance behaviour of NSFs with the Code.

3.2   Research Setting

In Cyprus the efforts to improve the governance of NSFs, intensified with the participation of the Cyprus Sport Organisation in the National Sports Governance Observer (NSGO) [30] project of the Danish Institute for Sports Studies (IDAN) through its Play the Game initiative. Through this project for the first time the governance of seven NSFs of Cyprus (Athletics, Football, Triathlon, Gymnastics, Handball, Swimming, and Tennis) and one umbrella organisation, namely the Cyprus National Olympic Committee was "measured". The results were not encouraging.

As shown in Figure 3.1 Cypriot sport federations scored an average of 27%, which gives an overall "weak" status. Both the average and individual scores (the majority thereof) in all four dimensions are below 50%, while only a small number of indicators (of each dimension) were above this value. Generally, Cyprus is the country amongst the ones examined for the purposes of the NSGO that finds itself as a 'negative outlier' in all four dimensions, and emphatically in certain key indicators (e.g., having a code of conduct (0%) or an approved multi-annual strategic plan (13%)).

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[30] The author of this thesis is the Head of Finance of the Cyprus Sport Organisation and was the Organisation's representative in the NSGO project/

Figure 3.1: NSGO index, score of Cypriot (selected) NSFs

NSGO index	27%	Weak

Dimension	Score	Label
Transparency	30%	Weak
Democractic processes	39%	Weak
Accountability & Control	33%	Weak
Societal responsibility	5%	Not fulfilled

Source: (Anagnostopoulos, 2018)

As such, Cypriot NSFs present a clear case where public policies are well needed in order for standards of good governance to be in place. Against this background, and on the back of the NSGO project (Geeraert, 2018), the highest authority of sport in Cyprus (i.e., Cyprus Sport Organisation) developed and introduced (on effect as of 1st January 2019) the first ever Code of Good Governance for the National Sport Federations in the Republic of Cyprus in order to conceptually and practically assist the Cypriot NSFs towards the implementation of good governance mechanisms and processes. The Code is very much influenced and inspired by the NSGO project – consists of four dimensions, 15 focus areas, and 55 articles. Table 3.1 presents the four dimensions and the 15 focus areas. [Appendix A presents an unofficial translation of the Cypriot Code in English.] The significance of and need for having a Code that sets good governance standards in the Cypriot sport environment was emphasised by the then Minister of Education & Culture Dr Kadis said that "*the Code serves as the necessary tool that will create a clear framework for the operation of the Sport Federations, thus giving assurance, stability and self-confidence to the boards and the administrators of the organisations in question*" (extract from the Minister's speech during the Code's launch, June 2018).

Table 3.1: The four dimensions, 15 focus areas of Cyprus' Code

Dimension	Focus Area
Transparency	1. Strategic Plan
	2. Contacting & Updating information by the Board of Directors
	3. Practical & Annual Reports of Organisations
Democratic Procedures	4. General Assembly, Election & Recommendation of the B.D.
	5. Term of Office of Members of the Board of Directors
	6. Coordinating Member-Associations with Federation Strategy
	7. Active Participation & Support of Internal Interested Parties
Accountability & Control	8. Obligations & Duties of Members of the B.D.
	9. Conflicts of Interest
	10. Control, Avoidance & Perception of Risks
	11. Code of Conduct & Complaints Policy
	12. Infringement and non-compliance
Social Responsibility	13. Sporting Health
	14. Socio-environmental Care
	15. Education & Collaboration

Source: Cyprus Sport Organisation (2018)

3.3 Philosophical underpinnings

3.3.1 Paradigms in organisational research

Several researchers have tried to define paradigms in the social sciences. Out of these, the one developed by Burrell and Morgan (1979) is considered the most influential (Hassard, 1991). Developing a philosophical perspective requires the researcher to make a number of fundamental assumptions regarding two dimensions: the nature of society and the nature of science (Burrell & Morgan, 1979). The dimension based on society's nature presents two views of society: regulatory or radical change. In this case, society is seen to evolve from the status quo or from what can be. Under the regulatory prism, the researcher assumes that society evolves rationally. Society is viewed as unified and cohesive. Under the radical change prism, the researcher assumes that society is in constant conflict as humans struggle to free themselves from the domination of societal structures (Burrell & Morgan, 1979). These divergent views develop opposing schools of thought. A rational view of society is the basis of modernism, whereas a radical change perspective underlies post-modernism. This is summarised in Table 3.2 below:

Table 3.2: Assumptions about the Nature of Society

Regulation	Radical Change
Society tends towards unity and cohesion	Society contains deep-seated structural conflict
Society forces uphold the status quo	Society tends to oppress and constrain its members

Source: Burrell and Morgan, 1979 (table adopted by Goles and Hirschheim (2000, p. 253)

The second dimension, which refers to the nature of science, is based upon a subjective or an objective approach to research, and these two major philosophical approaches are explained by several core assumptions concerning ontology (reality), epistemology (knowledge), human nature (pre-determined or not), and methodology as presented in Figure 3.2.

The ontological debate centres around the contrast between nominalism and realism. "The nominalist position revolves around the assumption that the social world external to individual cognition is *"made up of nothing more than names, concepts and labels which are used to structure reality."* (Burrell & Morgan, 1979, p. 4). These labels are artificial creations. On the other hand, realism *"postulates that the social world external to individual cognition is a real world made up of hard, tangible, and relatively immutable structures. Whether or not we label and perceive these structures, the realists maintain, they still exist as empirical entities."* (*ibid*.). The social world exists as strongly as the physical world.

The epistemological debate distinguishes between positivism and anti-positivism. Positivism *"characterise epistemologies which seek to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements."* (Burrell & Morgan, 1979, p. 5). In other words, they believe one can develop and test hypotheses, and that knowledge is a cumulative process. Anti-positivists reject that observing behaviour can help one understand it. One must experience it directly. *"From this point of view, social science is seen as being essentially a subjective rather than an objective enterprise"* (*ibid*.). They reject that social science can create actual objective knowledge of any kind.

Figure 3.2: A scheme for analysing assumptions about the nature of social science

The Subjective – Objective Dimension

The **Subjectivist** Approach to Social Science

The **Objectivist** Approach to Social Science

Nominalism	←	Ontology	→	Realism
Anti-positivism	←	Epistemology	→	Positivism
Voluntarism	←	Human Nature	→	Determinism
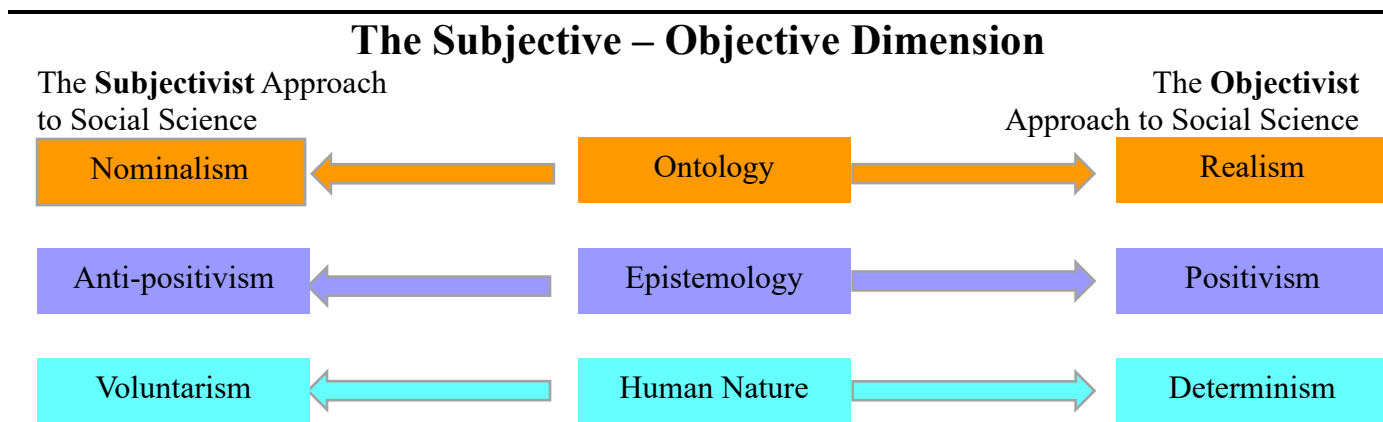
Source: Burrell and Morgan (1979, p. 3)

The human nature debate revolves around the question of what model of man is reflected in any given social-scientific theory. At one end of the spectrum, we have a determinist view and at the other end, a voluntarist view. The determinist *"regards man and his activities as being completely determined by the situation or 'environment' in which he is located"* (Burrell & Morgan, 1979, p. 6). Voluntarists believe that human action is *"autonomous and free-willed"* (ibid.). In a nutshell, the question is: Are humans determined by their environment, or do they have "free will". In our case, this could be phrased as: "Are board members of the NSFs free to govern or are their actions determined by the environment in which they operate, and the conditions imposed by the national agencies funding NSFs?".

The fourth debate is the methodological one. This debate contrasts ideographic with nomothetic theory. The ideographic theory focuses on "getting inside" a subject and exploring its detailed background and life history. They involve themselves with people's normal lives and look at diaries, biographies, and observations. Nomothetic relies more on the scientific method and hypothesis testing. They use quantitative tests like surveys, personality tests, and standardised research tools.

These four debates about the nature of social change can be summarised in Table 3.3 below:

Table 3.3: Assumptions about the Nature of Social Sciences

	Subjective	**Objective**
Ontological assumptions	Reality is interpreted by the individual. It is socially constructed (nominalism).	Reality is external to the individual. It is a "given" (realism).
Epistemological assumptions	Knowledge is relative. Researchers should focus on meaning and examine the totality of a situation (anti-positivism).	Researchers should focus on empirical evidence and hypothesis testing, looking for fundamental laws and causal relationships (positivism).
Assumptions about Human Nature	Humans possess free will and have autonomy (voluntarism).	Humans are products of their environments (determinism).
Methodological assumptions	Understanding the world is best done by analysing subjective accounts of a situation or phenomenon (ideographic).	Operationalizing and measuring constructs, quantitative analysis techniques, and hypothesis testing will uncover universal laws that explain and govern reality (nomothetic).

Source: Burrell and Morgan (1979), table adopted by Goles and Hirschheim (2000, p. 252)

Having identified the fundamentally different assumptions concerning the nature of society (see Table 3.2) and the nature of social science (see Table 3.3), Burrell and Morgan (1979) devised a matrix composed of four different research paradigms: functionalism, interpretivism, radical structuralism, and radical humanism as presented in Figure 3.3.

Figure 3.3: Burrell and Morgan's four paradigms
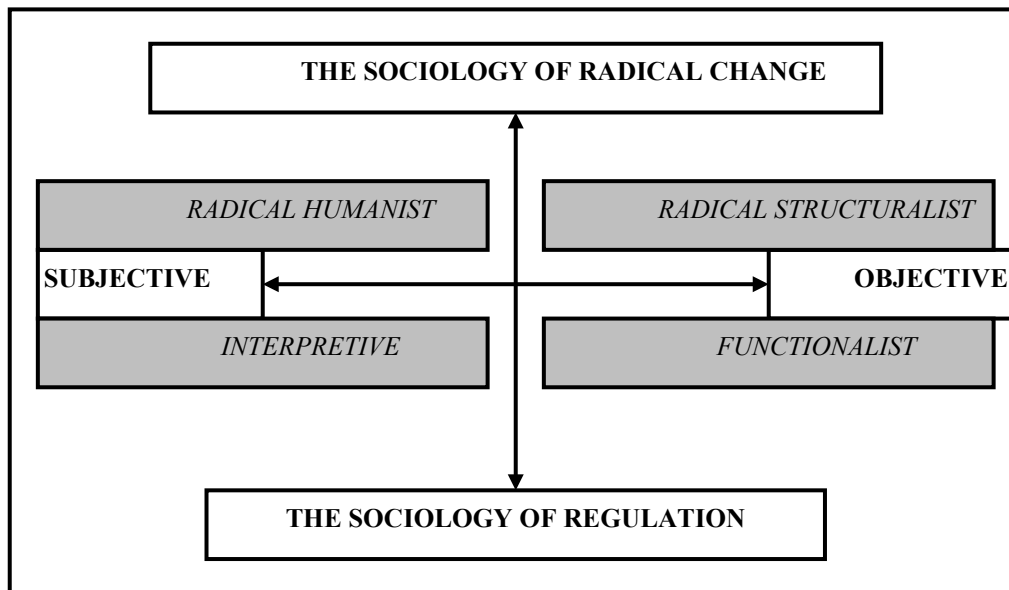
Source: Burrell and Morgan (1979)

In devising this matrix of paradigms for organisational analysis, Burrell and Morgan (1979) developed a framework that also considers major theoretical positions in economics, philosophy, politics, psychology, and sociology (Hassard, 1991).

3.3.2   The four paradigms

"Our activities are determined by our creed or philosophies. Before conducting a social research, we always reckon to our philosophy or research nature behind our study" (Gunbayi & Sorm, 2018, p. 57). As such, this section aims to provide a clear stance on which paradigm informs the present study. Such a standpoint, however, cannot be addressed or become 'legitimate' unless the features of the four paradigms, as suggested by Burrell and Morgan (1979), are fully understood. For this reason, there is a need to discuss the differences and similarities among the four paradigms. The different emphases of each paradigm can be represented by combining the grid of Burrell and Morgan (1979) with the interpretation of Gioia and Pitre (1990, p. 591) and Collins (1996), as presented in Table 3.4 below.

Table 3.4: Burrell and Morgan's paradigms: differences and similarities

Radical Humanist	Radical structuralist
Goal: To describe and critique, and to understand ***Concern:*** Social construction of reality, overcoming distortion **Theory-Building Approaches:** Disclosure through critical analysis	***Goal:*** identify sources of domination, politicisation, and guidance for action ***Concern:*** Domination and alienation **Theory-Building Approaches:** Liberation through structural analysis
Interpretive	**Functionalist**
Goal: Describe, explain, and diagnose ***Concern:*** Social construction of reality, interpretation **Theory-Building Approaches:** Discovery through code analysis	***Goal:*** Analyse organisations to find regularities, to facilitate control and functional development ***Concern:*** Relationship, causality, functionality **Theory-Building Approaches:** Refinement through causal analysis

Source: Grid of Burrell and Morgan (1979) with the interpretation of Gioia and Pitre (1990, p. 591) and Collins (1996)

The following sections of this chapter provide a brief overview of each paradigm, along with the justification of the chosen paradigm.

3.3.3 Radical structuralist

The radical structuralist paradigm assumes a structural change within objective thinking. It is like the functionalist paradigm (see below) when it assumes that social reality is objective. This approach, however, does not seek to understand relationships but rather searches for explanations of the fundamental interrelationships within the context of a total social pattern. As Goles and Hirschheim (2000, p. 253) stated, *"the radical structuralist paradigm has a view of society and organisations which emphasises the need to overthrow or transcend the limitations placed on existing social and organisational arrangements"*. Saunders et al. (2019) added that the concern is to approach a research project with a view to achieving fundamental change based upon an analysis of such organisational phenomena as power relationships and patterns of conflicts.

Although these two issues are likely to emerge in a study that looks at the implementation process of a phenomenon (namely Code adoption) within an organisation (namely NSF), as stated earlier, this research does not seek to analyse or identify the changes that the adoption of a Code will bring to NSFs. These changes were, to an extent, analysed by Walters and Tacon in a some of their publications (Tacon & Walters, 2016; Walters, 2010; Walters & Tacon, 2018). As such, and despite adopting the objective stance that the radical structuralist paradigm holds, it does not fit with this research's epistemological point of view.

3.3.4 Radical humanist

Similarly, to the radical structuralist paradigm, the radical humanist seeks profound change (changing the status quo) while stressing the role of different social and organisational forces in understanding such a change. In other words, unlike the functionalist and radical structuralist paradigms, this approach does not regard organisations as having a concrete existence prior to the involvement of actors. This paradigm shares the interpretive paradigm's view of the subjective nature of the social world, where reality is merely a reflection of human cognition. Still, as Gioia and Pitre (1990, p. 588) point out, *"there is the important distinction of having a more critical or evaluative stance"*. It looks at societies as being composed of negative elements and controlled by a dominant, powerful system. Such atypical situations create negative circumstances for society members, which in turn lead to further conflicts. The goal of a theory in radical humanism is to free organisation members from sources of domination, alienation, exploitation, and repression by critiquing the existing social structure with the intent of changing it (Gioia & Pitre, 1990). As previously stated, the aim of this research is not to build a theory to change the governance of NSFs. More importantly, the subjective view of the social world as adopted by the radical humanist paradigm does not align with this thesis's ontological or epistemological beliefs. Therefore, adopting the radical humanist paradigm would not support such an argument.

3.3.5 Interpretive

The interpretive paradigm is grounded on the view that people socially and symbolically construct and sustain their own organisational realities (Berger & Luckman, 1966; Gioia & Pitre, 1990; Morgan & Smircich, 1980). *"Therefore, the goal of a theory building in the interpretive paradigm is to generate descriptions, insights, and explanations of events so that the system of interpretations and meaning, and the structuring and organising processes, are revealed"* (Gioia & Pitre, 1990, p. 588). Here, organisations and their departments are viewed as creations of the actors involved in the sense that they do not face a concrete external reality that existed prior to them. As Reed (1992) writes, organisations within this paradigm are often referred to as structures in process, with the structures of organisations viewed as the creations or, frequently, the creative fictions of the actors involved (Collins, 1996).

From a methodological point of view, as Gioia and Pitre (1990, p. 588) point out, *"Analysis begins during data collection and typically uses coding procedures to discern patterns in the (usually) qualitative data so that descriptive codes, categories, taxonomies, or interpretive schemes that are adequate at the level of meaning of the informants can be established. Thereafter, analysis, theory generation, and further data collection go hand in hand"*. Within this context, researchers acknowledge that they are not independent of the phenomenon being investigated; instead, researchers and the phenomenon being studied have a close and interdependent relationship. Such an observation points towards qualitative research, such as the grounded theory methodology, which is not the methodological approach of this study.

3.3.6 Functionalist

The functionalist paradigm espouses the objectivist perspective of the social world and the regulation and order of societies. It is regulatory in that a researcher will probably be more concerned with a rational explanation of why a particular organisational phenomenon/problem is

occurring and developing a set of recommendations set within the current structure of the organisation's existing management (Saunders et al., 2019) without any intentions of changing these structures. In a way, this approach uses a scientific basis grounded on beliefs that organisations possess similar characteristics to the physical world, with the ultimate goal being to understand the relationship between regularities within the subjects of the phenomenon being investigated. The social science enterprise is believed to be objective and value-free. The paradigm advocates a research process in which the scientist is distanced from the subject matter by the rigour of the scientific method. The paradigm possesses a pragmatic orientation; it is concerned with analysing society in a way that produces useful knowledge (Hassard, 1991). It does not intend to develop a new theory but rather to refine it by shedding new light on its application.

The present study does not aim to change how NSFs implement good governance but rather establish if a "carrot or stick" approach will facilitate the adoption of Code(s) issued by their funders to improve sport governance.

It employs, however, a more objectivist approach to social science and thus, this led the researcher to position this study under the ***functionalist paradigm*** where the need to employ a "carrot or stick" approach to promote the compliance of a Code by NSFs is a reality that exists, it is given, as assumed by the ***realism*** approach to ontology. From an epistemological perspective, a ***positivism*** stance is adopted, acknowledging that reality is objective and "out there" waiting to be discovered and that this knowledge can be identified and communicated to others. Compliance or not with codes of good governance is also assumed to be a function of the environment in which NSFs operate. For this reason, within the scope of this research, the intention to comply is evaluated alongside the control environment established by the issuers of the Codes, who fund the NSFs, to determine whether there is compliance with the principles of the Code. Hence, the assumption made with regards to human nature is that humans are determined by their environment.

When it comes to the methodological debate, nomothetic theory is embraced. The hypotheses set out in the previous chapter will be tested using quantitative analysis techniques, as analysed in Chapter 5, aiming to uncover the reality that can support the adoption of a good governance code.

3.4   Research Design/Method

To study any phenomenon, a researcher is expected to utilise a specific research method to collect and analyse data. The method chosen reflects the research paradigm the researcher has selected for the specific study based on the ontological and epistemological assumptions made. Drawing from the corporate governance literature Clarke (1998) refers to four principal methodologies for research on boards of directors, moving from the more quantitative to the more interpretative. These methodologies include database surveys, questionnaire surveys, interview surveys, and boardroom observation. Researchers can categorise these approaches into quantitative and qualitative, and a 'mixed methods approach' has emerged, allowing researchers to use both quantitative and qualitative methods in their research.

A quantitative research method quantifies and analyses variables with the intention of getting results. It is based on the utilisation and analysis of numerical data using specific statistical techniques to answer questions like who, how much, what, where, when, how many, and how. As such quantitative research methods try to explain an issue/phenomenon/problem through numerical data collection and analyse them using mathematical methods; in particular statistics (Apuke, 2017). More specifically, quantitative methods are best suited to developing 'descriptive' and 'inferential' statistics. According to Cohen et al. (2000), this method excels in providing comprehensive information and examining cause and effect from a large sample of data, thereby facilitating the testing of hypotheses and theories.

On the other hand, qualitative research is used to understand people's beliefs, experiences, attitudes, behaviour, and interactions. It generates non-numerical data. Qualitative research occurs

in natural environments, where a researcher could develop details by being involved in the actual experiences. While there are many approaches to qualitative research, they tend to be flexible and focus on retaining rich meaning when interpreting the data. Common techniques include grounded theory, ethnography, action research, phenomenological research, and narrative research. They share some similarities but emphasise different aims and perspectives.

According to the analysis in the table below, this research employs quantitative data to answer the research questions posed in the previous chapter. This is consistent with the functionalist paradigm adopted in this study, which assumes an objective perspective of the world with the researcher being at a distance from the subject matter. In our case, the aim will be to identify whether a "carrot or stick" approach is better suited to promote the adoption of a Code. Based on this, the hypotheses presented in the previous chapter are better suited to be examined using quantitative data (Collis & Hussey, 2014).

In the corporate world, quantitative data has been extensively used to answer questions that aim to establish compliance with corporate governance codes (Elshandidy & Neri, 2015; Hassanein & Hussainey, 2015). Consequently, the current proposal is in line with current academic practice. This allows for reliable and valid results that can be objectively analysed through statistical analysis. A summarised comparison of quantitative and qualitative research is presented in Table 3.5 below:

Table 3.5: Quantitative versus Qualitative Research		
Criteria	**Quantitative Research**	**Qualitative Research**
Purpose	To test hypotheses, look at cause & effect, & make predictions.	To understand & interpret social interactions.
Group Studied	Larger & randomly selected.	Smaller & not randomly selected.
Variables	Specific variables studied	Study of the whole, not variables.
Type of Data Collected	Numbers and statistics.	Words, images, or objects.
Form of Data Collected	Quantitative data based on precise measurements using structured & validated data-collection instruments.	Qualitative data such as open-ended responses, interviews, participant observations, field notes, & reflections.
Type of Data Analysis	Identify statistical relationships.	Identify patterns, features, and themes.
Objectivity and Subjectivity	Objectivity is critical.	Subjectivity is expected.
Role of Researcher	The researcher and their biases are not known to the participants in the study, & participant characteristics are deliberately hidden from the researcher (double-blind studies).	Researcher & their biases may be known to participants in the study, & participant characteristics may be known to the researcher.
Results	Generalisable findings that can be applied to other populations.	Particular or specialised findings that is less generalisable.
Scientific Method	Confirmatory or top-down: the researcher tests the hypothesis and theory with the data.	Exploratory or bottom–up: the researcher generates a new hypothesis and theory from the data collected.
View of Human Behaviour	Regular & predictable.	Dynamic, situational, social, & personal.
Most Common Research Objectives	Describe, explain, & predict.	Explore, discover, & construct.
Focus	Narrow-angle lens; tests a specific hypothesis.	Wide-angle lens; examines the breadth & depth of phenomena.
Nature of Observation	Study behaviour under controlled conditions; isolate causal effects.	Study behaviour in a natural environment.
Nature of Reality	Single reality; objective.	Multiple realities; subjective.
Final Report	Statistical report with correlations, comparisons of means, & statistical significance of findings.	Narrative report with contextual description & direct quotations from research participants.

Source: Apuke (2017)

Another methodological challenge is the selection of a research approach. In broad terms, researchers will use either an inductive or a deductive approach. In an inductive research approach, a researcher starts by collecting data relevant to their topic of interest. Once a substantial amount of data has been collected, the researcher will take a breather from data collection, stepping back to get a bird's eye view of her data. At this stage, the researcher looks for patterns in the data, working to develop a theory that could explain those patterns (Saylor Academy, 2012). Figure 3.4 below outlines the steps involved with an inductive approach to research.

Figure 3.4: Inductive Research

Gather Data   ⟶   **Look for Patterns**   ⟶   **Develop Theory**

Specific level of focus   *Analysis*   *General level of focus*
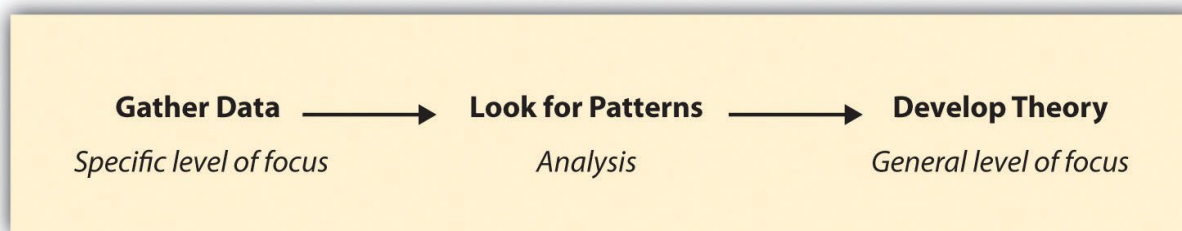
Source: Saylor Academy (2012)

Researchers using a deductive approach follow the steps outlined above for inductive research and reverse their order. They start with a social theory that they find compelling and then test its implications with data. That is, they move from a more general level to a more specific one. A deductive approach to research is one that people typically associate with scientific investigation. The researcher studies what others have done, reads existing theories of whatever phenomenon they are studying, and then tests hypotheses that emerge from those theories. The steps involved with a deductive approach to research are shown in Figure 3.5 below.

Figure 3.5: Deductive Research
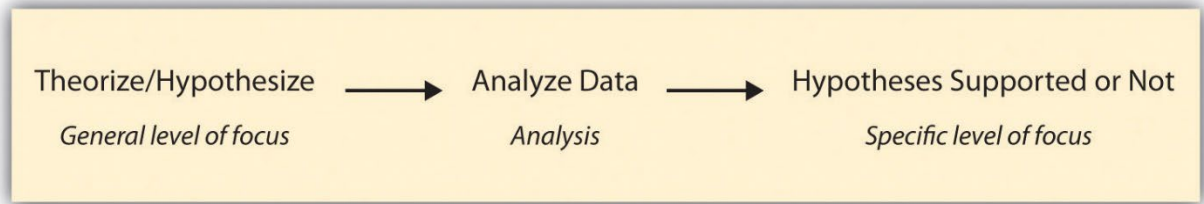
Source: Saylor Academy (2012)

This research, which follows a quantitative methodology clearly adopts deductive research. The deductive research approach was selected as hypotheses were informed by the main tenets and principles of compliance and deterrence theory and developed using previous studies. Following that, data were gathered and analysed later to confirm or reject the stated hypotheses, as supported by the positivism epistemological perspective. As a result, and to examine the research hypotheses, the quantitative research approach is employed in this study by relying on a large-scale questionnaire survey addressed to the board of directors of the NSFs, as will be analysed in the following sections and chapters. This is consistent with one of the four principal methodologies for research on boards of directors, as Clarke (1998) identified. Namely: Database Surveys, Questionnaire Surveys, Interview Surveys and Boardroom Observation.

3.5   Addressing Potential Conflict of Interest

As previously mentioned, the author of this thesis is the head of Finance at the CSO. In this capacity, he is responsible for granting final approval for the funding of NSFs by the Organisation. Additionally, he was involved in developing the good governance code issued by the CSO. This potential conflict of interest presented both challenges and unexpected benefits in the research design.

Given the author's dual roles as a researcher and a proponent of governance reform within the sport sector, there was a concern that personal biases and professional affiliations might influence the research process and outcomes, raising concerns about interviewee bias. NSF directors might be hesitant to express their true opinions or concerns during face-to-face interviews, potentially skewing the data towards socially desirable responses. To address these ethical considerations and maintain the integrity of the study, several measures were implemented:

- Anonymity and Confidentiality: An anonymous online survey was chosen as the primary data collection method to provide respondents with the assurance of confidentiality and minimize the potential for bias stemming from personal relationships or affiliations. This platform allowed NSF directors to express their honest viewpoints without fear of repercussions, fostering a more transparent and truthful response environment, potentially leading to richer data.

- Independent Review: To enhance the objectivity of the study, the research design and methodology were reviewed and approved by the UCLan's BAHSS Ethics Review Panel.

- Access to Participants: Leveraging the author's position within the CSO and existing relationships facilitated participation from NSF directors in the survey. This ensured a more comprehensive and representative sample, enhancing the validity and reliability of the study findings.

In conclusion, while the researcher's role presented a potential conflict of interest, the chosen methodology of anonymous online surveys mitigated this concern and offered unexpected benefits. This approach ensured anonymity and potentially yielded more transparent and representative data, while the researcher's position facilitated greater access to participants.

3.6 Concluding section

Having analysed the different research paradigms based on the Burrell and Morgan (1979) matrix, the philosophical assumptions and methodological issues related to this study's research design are summarised concisely in Table 3.6 below:

Table 3.6: Philosophical assumptions and methodological issues related to the study's research design	
Ontology	Realism
Epistemology	Positivism
Theoretical Perspective	Refinement through causal analysis
Paradigm	Functionalist
Approach	Deductive
Strategy	Quantitative
Methodology	Large Scale Survey
Methods/Techniques	Anonymous Questionnaire
Evaluation Criteria	Reliability

Chapter 4

Questionnaire and Scale Development

4.1   Introduction and purpose

As stated above, even though many national funding agencies have issued good governance codes (Code) requesting their national sport organisations/federations (NSOs/NSFs) to comply with them, to the researcher's best knowledge, no study has ever examined whether a punishment and / or a reward ("stick or carrot") would promote better compliance with such a Code. This issue has been extensively researched in other areas of academic interest, such as in compliance with information security policies. As such, the present study draws inspiration from similar studies (e.g., Chen et al., 2012; D'Arcy et al., 2009; Liang et al., 2013; Liu et al., 2022) to inform research on the use of appropriate governance mechanisms to regulate the operation of NSOs.

This chapter articulates the steps taken to develop the core data collection tool of this research, i.e., the questionnaire (as well as the steps involved in validating it). The chapter details the development of the questionnaire scale, incorporating and refining Boateng et al.'s (2018) recommendations as needed. Boateng et al. (2018) through their work amalgamated technical literature from various sources along with their own experience developing a primer for best practices for scale development. Their research proposes three phases involved in creating a rigorous scale, namely: item development, scale development, and scale evaluation. These can be further broken down into nine steps, as presented in Figure 4.1.

4.2   Step 1: Identification of domain and item generation: Selecting which items to ask

A relevant literature review was conducted to specify the boundaries of this research, a summary of which is presented in Chapter 2. Good governance in sport literature has been thoroughly reviewed and described, and its interface with compliance and control has been discussed and established. The literature review, therefore, surfaced extant knowledge in the field of sport governance and articulated and defined its constituent dimensions, which in turn have

been used to inform this survey. As similar research has not been undertaken in sport governance, research from the area of information security has been used for inspiration and item generation (Chen et al., 2012; D'Arcy et al., 2009; Liang et al., 2013; Liu et al., 2022).

Figure 4.1: An overview of the three phases and nine steps of scale development and validation
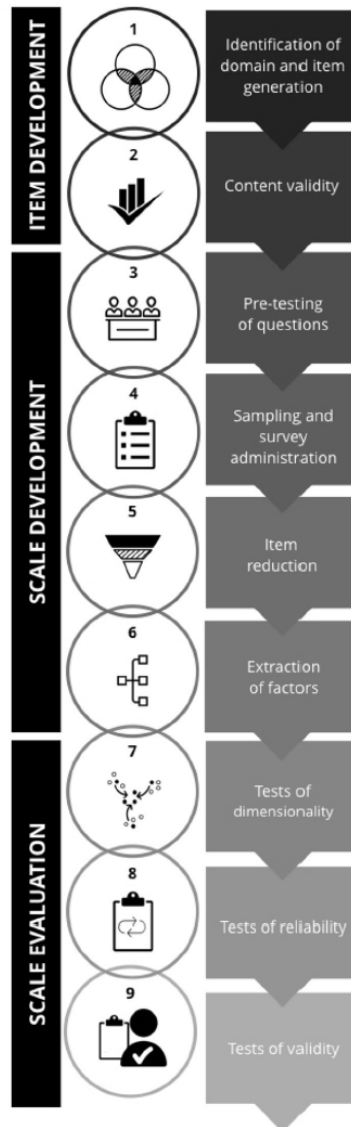
Source: Boateng *et al.* (2018)

4.2.1   Experiment design

Based on the types of hypotheses presented in Sections 2.3.5 to 2.3.9, an experiment involving the actual board members that take decisions for NSFs in their natural settings, such as during board meetings, is deemed the most suitable approach. This choice is driven by its capacity to enhance response quality through realism, enhanced external validity, and uphold the participants' expertise and ethical considerations. Consequently, this approach leads to findings that hold greater relevance and value within the realm of sports governance. As such, the researcher asked the board members of an NSF to complete an anonymous and online questionnaire, before one of their meetings. When this was not possible, the researcher sent a link to the online survey to the NSF, requesting them to share it with their board members.

The three governance-promoting factors examined in this research (i.e., punishment, reward, certainty of control) have been administered at two levels, each through a questionnaire with a 2 x 2 x 2 mixed design. The first factor, i.e., *punishment*, was administrated at two levels (namely, severe and none). The second factor, i.e., *reward*, was also administrated at two levels (namely, high and none). The third factor, i.e., *certainty of control* was administered at two levels (namely, high (with) and low (without) control)[31]. The first two factors are 'within-subjects' factors, and the third factor is a 'between-subject' factor. On the basis of the above design eight scenarios have been developed, four for high (i.e. with) and four for low (i.e. without) certainty of control, aiming to test the main impacts and interaction effects of these three factors, as shown in Table 4.1. For example, Scenario 1 aims to collect evidence in the case of a no reward and no

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[31] The choice to use only extreme values i.e., severe/none punishment, high /low reward or with/without control and not average values such a medium punishment or reward or some control, has been made to avoid creating an overly complicated questionnaire and one in which the boundaries between the values tested would not be clear to the respondents.

punishment. Scenario 2 aims to collect evidence in the case of no reward and the severe level of punishment, and so forth. To control for any order effects due to repeated trials, the concept of a Latin square design was used to create a Latin square design matrix.

Table 4.1: Latin Square Design Matrix				
Order_1	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Order_2	Scenario 2	Scenario 3	Scenario 4	Scenario 1
Order_3	Scenario 3	Scenario 4	Scenario 1	Scenario 2
Order_4	Scenario 4	Scenario 1	Scenario 2	Scenario 3
Note: Scenario 1: No Reward and No Punishment; Scenario 2: No Reward and Severe punishment; Scenario 3: High Reward and No Punishment; Scenario 4: High Reward and Severe Punishment. [Where Severe punishment refers to a deduction of funding between 20% and 33% and High reward an increase in funding between 20% and 33%, as explained in the scenarios presented in the questionnaire.]				

Utilising the possibilities offered by Qualtrics (i.e., the platform used to distribute the online questionnaire), participants were randomly separated into two groups, namely one which hypothetically operated under a high-control/high governance environment and one which hypothetically operated under a low (no)-control/ low (no) governance environment. As such, the eight questions are divided into two groups. The first group of participants was asked to reply to the four questions in a high-control environment, while the second group in a low (no)-control environment. Each participant was randomly [32] provided with four of the eight scenarios and asked to answer the questions that followed that scenario.

The anonymous survey is presented in three sections (or parts) along with a cover letter in Appendix B.

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[32] i.e., the first respondent to the questionnaire was allocated to the control/governance environment, answering the scenarios in the order of 1-2-3-4, the second was allocated to the low (no) control/low (no) governance environment, answering the scenarios in the order of 1-2-3-4, the third again allocated to the control environment, but answering the scenarios in the order of 2-3-4-1 and so on.

Both the cover letter to the questionnaire (see Appendix B), and the introduction to the questionnaire set the background for the study, explaining to the participants that its aim was to examine their perceptions as to the implementation of the Code for National Sport Federations (NSFs) issued by CSO. Section A of the questionnaire presents the four scenarios for a hypothetical NSF (i.e., not the participants' own). The second section includes the control variables and the demographics. Section C does not refer to various scenarios or the effects of punishment, reward, and certainty of control. Instead, participants are asked to respond to questions with their own NSF in mind, rather than a hypothetical one as in Section A. This section includes a total of 23 questions covering five topics: governance culture (eight questions), governance policy (five questions), governance training (four questions), governance monitoring (three questions), and governance capacity (three questions).

4.2.2   Section A – Scenarios for the Hypothetical Federation

Section A presents the four scenarios outlined above. Specifically, respondents were asked to assume they were board members of a hypothetical NSF, i.e., one that is facing no capacity issues, such as staff, financial or other resource limitations, and to answer seven questions under four scenarios. The four scenarios differ as to whether there are reward or punishment in place to encourage the implementation of the principles of the Code (the questions following each scenario are identical). Respondents were divided into two groups replying to the questions under each of the four scenarios, where control is varying. [One group in a high-control environment, and another in a low (no)-control environment.] Conceptualisation of control at the aggregate level is based on whether the CSO will audit[33] the hypothetical NSF to ascertain if it has implemented the

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[33] The audits referred to are not statutory audits but rather compliance inspections.

Code or not. The participants were asked to go through each scenario and then answer questions about their intention to comply with the good governance principles as demanded by the Code as board members of this hypothetical NSF. Furthermore, they were asked to answer the manipulation check questions (see Appendix B, statements MANI-C1, MANI-C2, MANI-P, and MANI-R) for each case scenario.

To the best of the author's knowledge, such an approach, i.e., the use of a hypothetical scenario technique for experiment design, has never been used before to examine compliance with governance mechanisms in the area of sport. It has, however, been extensively used in the area of information security research, focusing on compliance with company security policies, software piracy, ethical IT use behaviour, project escalation, conveying bad news to project managers, IT outsourcing risks, and risk perceptions in business process outsourcing (Chen et al., 2012). Scenario-based techniques have been commonly used in studying ethics-related security behaviours such as security policy violations and computer abuse (Chen et al., 2012; Siponen & Vance, 2010).

A hypothetical scenario method, also known as vignette or policy capturing method, uses vignettes that *"present subjects with written descriptions of realistic situations and then request responses on a number of rating scales that measure the dependent variables of interest"* (Trevino, 1992, pp. 127–128). The scenario method is attractive for researching unethical or socially undesirable behaviour for several reasons (Klepper & Nagin, 1989; Siponen & Vance, 2010). First, they provide an indirect way to measure the intention of individuals to engage in unethical behaviour, which might be hard to measure directly because the experiment participants are likely to try to hide their behaviour and respond to questions in socially desirable ways (Siponen & Vance, 2010).

Second, scenarios allow the researcher to incorporate situational details considered important in decisions to behave unethically (Klepper & Nagin, 1989). Survey questions that ask respondents in general terms that is, without reference to a particular context or situation, whether they would behave unethically force respondents to contrive in their own minds the circumstances in which they might consider doing so. Scenarios provide a way to enhance the realism of decision-making situations by providing contextual detail, while simultaneously ensuring that these details are uniform across respondents (Siponen & Vance, 2010).

Third, the scenario method provides a methodological advantage because it allows unethical behaviour to be measured prospectively (Pogarsky, 2004), contrary to traditional surveys, which connect previous behaviour (as the dependent variable) with the participants' current view of theoretical concepts presented in the survey, possibly creating measurement error (Siponen & Vance, 2010).

A design of multiple scenarios per respondent was chosen, as each scenario is associated with a relatively small number of survey items. Furthermore, a fractional design (Wason et al., 2002) was used, in which each participant is given four scenarios (vignettes). This approach is recommended in the literature (Wason et al., 2002) for scenario development to avoid possible information overload and fatigue. *"Too few [vignettes] could limit the researcher's ability to manipulate critical [independent] variables and could result in responses biased by the few issues contained in the [vignettes]. . .. [T]oo many [vignettes] could lead to information overload and fatigue for the respondent"* (Weber, 1992, pp. 142–143). The possible order and carryover effects were controlled by using a Latin square design matrix for the random assignment of scenarios (Chen et al., 2012).

The validity and reliability of the hypothetical scenario developed were safeguarded by measuring the dependent variable (i.e., intention to comply with the provisions of the Code)

through three five-point Likert scale items [34] adapted from Chen et al. (2012) as presented in Appendix B (CI1,CI2,CI3).

4.2.3 Section B - Control Variables, Demographic Profile and Social Desirability Bias

The use of control variables is a critical component of organizational researchers' methodological toolkit, especially given the practical difficulties associated with the implementation of experimental and quasi-experimental designs (Bernerth & Aguinis, 2016). The primary reason for including control variables in this study is to account for factors that may influence the dependent variable, thereby enhancing the internal validity of the research design. Control variables play an essential role in programmatic efforts to explain the reasons for observed results (Spector & Brannick, 2011).

4.2.3.1 Demographic Control Variables

Based on the literature on information security, which this study draws heavily on, the personal characteristics of the participants, such as gender, age, and work experience, have the power to influence the dependent variable (Siponen & Vance, 2010). As such, four demographic control variables were introduced:

1. Gender (four options)

2. Age (10 age groups)

3. Education level (six education levels)

4. Number of years on the board of the sport federation (six brackets)

These demographic characteristics were included based on their potential impact on the dependent variable. Previous empirical research suggests relationships between these variables

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[34] The first item (CI1) was dropped, however, during the scale refinement process.

and various organisational outcomes. For instance, studies have shown that gender diversity can influence decision-making processes (Liu et al., 2022), while age and education levels can affect perspectives on compliance (Young et al., 2016) and governance. The number of years on the board one hand might correlate with a deeper understanding and adherence to governance codes but on the other hand longer-serving members might resist the adoption of the code due to provisions for term limits, which could potentially drive them out of the NSF's board.

4.2.3.2   NSF Characteristics Control Variables

Beyond demographic characteristics, four additional control variables were introduced to define the characteristics of the NSF that the board member serves:

1. Size of NSF based on its annual budget (five brackets)

2. Number of employed staff (four brackets, with the highest being 5+)

3. NSF's years of establishment (four brackets)

4. Whether the sport of the NSF is a single or team sport or both

These variables were selected based on literature from Information Security, which suggests that *"misuse intention [or intention to comply in our case] might vary based on organizational characteristics"* (D'Arcy et al., 2009, p. 15). In addition, larger organisations may have more resources and structured governance practices, which could influence compliance levels. Given these relationships, it is possible that the dependent variable relates to the independent variable not solely due to the theorised relationship(s) but also because of these control variables. Therefore, including control variables helps to eliminate alternative explanations and demonstrate the unique relationship between the independent and dependent variables (Bernerth & Aguinis, 2016).

In addition to the above NSF and demographic control variables, it was also considered important to test for social desirability bias. According to Hays et al. (1989, p. 629) *"self-report*

measures of attitudes, behaviour and feelings (such as this survey) have been criticised frequently because respondents may have answered questions in such a way as to present themselves favourably". To measure and control respondents' tendency to give socially desirable responses several instruments have been developed, generally referred to as measures of socially desirable response set (SDRS). In the context of this thesis, the influence of social desirability bias was quantified by utilising five items acquired from Hays et al. (1989). These items were employed to evaluate the extent to which participants represented themselves in a socially appropriate and favourable manner, potentially downplaying any negative behaviours in the process.

4.2.4 Section C - Questions relating to participants' own Federation

After completing the questions of Section B, respondents were asked to respond to 23 questions over five topics, namely: Governance culture (eight questions)[35]; governance policy (five questions); governance training (four questions); governance monitoring (three questions); and governance capacity[36] (three questions) all of which refer to the implementation of the Code by their own, actual (i.e., not the hypothetical), NSF. Questions were sourced mainly from relevant IT literature as described earlier (Chen et al., 2012; Liang et al., 2013; Liu et al., 2022).

Thus, the control variable 'organisation', was further examined by including questions regarding the compliance culture pertinent to each actual NSF. This was done with the aim of identifying potential differences in the intention to comply with the Code among the different board members of the NSFs in Cyprus. The organisational adherence to good governance principles was measured by eight five-point Likert scale items. In addition, the influence of governance principles measured by organisational governance policies (five questions),

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[35] The eighth question was dropped during scale refinement.
[36] The 'capacity' topic (or component) was dropped during scale refinement.

governance training (four questions), governance monitoring (three questions) and governance capacity (three questions) by five-point Likert scale items was also adopted from Chen et al. (2012), see Appendix B.

4.2.5   Questionnaire Translation

Appendix B provides the measurement items for the questionnaire developed in English. However, since the questionnaire was provided in English and in Greek to respondents it had to be translated into Greek. To ensure the accuracy and equivalence of the translated questionnaire the following procedures of back-translation as suggested by Brislin (1980), cited in Liu *et al.* (2022) were followed. The author first translated the measurement items into Greek. The items were then translated back to English by an academic staff member of UCLan Cyprus. Moreover, from March to April 2020, the questionnaire was given to two members of academic staff of UCLan Cyprus and an experienced manager in the field of sport management. Based on their feedback, the questionnaire was modified until there were no significant discrepancies between the original scales and the back-translation one. In addition, another eight experts reviewed the translation of the questionnaire during the face validation process (see Section 4.2.1) Based on the feedback received, the Greek version of the questionnaire was revised and modified before the pilot testing.

4.3   Step 2: Content Validity: Assessing whether the items adequately measure the domain of interest

Content validity refers to *"adequacy with which a measure assesses the domain of interest"* (Hinkin, 1995, p. 968). As a result, in order to ensure that the questionnaire items measure compliance, evaluation was conducted by the target population and by experts. This research

deployed two groups of questionnaire evaluators, namely experts who are highly knowledgeable about the domain of interest and/or scale development, and target population evaluators who are potential users of the scale (DeVellis, 2012). The aim was to test the general mechanics of the questionnaire, particularly survey instructions, completion time, and appropriate wording, and to seek feedback on the format and content of survey items, something which in turn led to the refinement of wording in places to ensure that both navigation instructions and questions are clear.

4.3.1   Evaluation by Target Population

Target population evaluators are experts at evaluating face validity, which is a component of content validity (Boateng *et al.*, 2018). Face validity can be defined as the extent to which respondents, i.e., end-users or laypeople consider the assessment items appropriate not only to measure the intended construct, but also to meet the assessment objectives (Boateng *et al.*, 2018). Therefore, these end-users can determine how well the data collection constructs effectively measure the domain.

As the population of the study is the finite and relatively limited number of NSFs' board members, and the data collection instrument is a survey through anonymous questionnaires, a decision was taken not to use any members of this limited pool of respondents targeted for the actual survey. Instead, former NSF board members (mainly chairpersons) were selected as evaluators, as they are sufficiently knowledgeable about the governance structures in place at the NSFs they previously served. To achieve the above, eight (8) ex-board members participated in this questionnaire evaluation study.   The evaluation was performed in two phases using the questionnaire's double language (i.e., English and Greek) version. This was done for two reasons: a) to receive feedback on the adequacy of the Greek translation of the original English version; and b) to assess how the Greek version of the questionnaire would be received, given that the

majority of the respondents would naturally opt for the Greek version. Overall, preliminary testing results showed that the survey questions and scales were comprehendible, with only a few exceptions, which were immediately addressed.

The first phase of the questionnaire evaluation surveyed four ex-board members using the scenarios of the questionnaire, which portray a compliance environment where NSFs operate under a reasonable probability that they will be audited to determine whether they implement the Code. The main finding of this phase was that respondents were unclear with the first three questions of the scenarios, concerning the use of words "ενδεχομένως" (i.e., a translation in Greek of the word 'possible'), "πιθανόν" (i.e., a translation in Greek of the word 'probable') and "μάλλον" (i.e. a translation in Greek of the word 'likely'). To overcome this, the above Greek words were replaced with self-explanatory *phrases* (rather than words) such as "μικρή η πιθανότητα" (i.e., a translation in Greek of the phrase 'the possibility is small'), "αρκετή η πιθανότητα" (i.e. a translation in Greek of the phrase 'there is substantial possibility'), and "μεγάλη η πιθανότητα" (i.e. a translation in Greek of the phrase 'the possibility is great') correspondingly. During the first phase of the evaluation, a second issue emerged: despite the questionnaire asking respondents to respond to the scenarios based on a hypothetical NSF, their focus remained on their own actual NSF. To remedy this, the instructions in the opening paragraph and in the title of the scenarios' section were made clearer and more explicit.

The second phase of the evaluation surveyed another four (4) ex-board members using scenarios from the questionnaire, which described a weak control environment. The respondents' main issue in this case was a difficulty in placing themselves in a weak control environment and appreciating that whether or not they complied with the CODE, their compliance (or lack of) would not be monitored. An explanation for this questionnaire evaluation finding is that respondents may have been accustomed to being audited by the CSO, and despite the admittedly loose monitoring,

they still perceived it to be sufficiently rigorous. The original reference in the scenario wording to the 2-year unscheduled checks is similar to some of the reviews conducted by CSOs today, leading to the perception that there will still be control. To help respondents appreciate that the control environment assumed by these scenarios is weak, the text in the scenarios was revised to clarify that there may not be sufficient external audits (or no audits at all), while any reference to scheduled or unscheduled audits was removed.

Overall, however, questionnaire evaluation results showed that the survey questions and scales were comprehendible.

4.3.2   Evaluation by Experts

As far as evaluation by experts is concerned, nine (9) academic experts in the field of sport management and/or governance were contacted in June 2021 to offer feedback on content validity. Expert evaluators were asked to assess the questionnaire in a process inspired by the Delphi[37] method, and which basically aims at reaching a consensus regarding which questions reflect the construct(s) under research. The Delphi method involves *"structuring group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem"* (Boateng *et al.*, 2018, p. 7). Four (4) of the academics responded in the end, and overall, there was consensus that questions and the associated scenarios that make up the questionnaire are clearly representative of the construct under research. A notable exception, however, was question 3 of the scenario questions, which was one of the four questions that intended to measure compliance with the Code. Based on the comments received, one survey item

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[37] The full Dephi method was not performed mainly due to time constrains. It would be very challenging and inefficient to get a second response from busy academics, especially given that overall, there was consensus on the questionnaire, suggesting here that any additional value added would be minimal, if the Dephi method was fully followed.

in the second section[38] of the questionnaire, i.e. 'The hypothetical Sport Federation is likely to follow all the articles outlined in the Code', was deleted, as it was not sufficiently distinguished from the other two questions that referred to possible and probable adoption of the Code, while some minor wording improvements were also made.

Appendix B displays the refined version of the questionnaire based on the responses and observations of the ex-board members and academic experts.

4.4   Step 3: Pre-testing questions: Ensuring the questions and answers are meaningful

In Step 3, instead of the cognitive interviews suggested by Boateng *et al.* (2018), pre-testing took the format of a pilot questionnaire administration. Pre-testing refers to *"delivering a questionnaire to individuals with special knowledge of the topic or members of the survey population and asking them to complete"* (Dillman et al., 2014, p. 242) it.

While a pilot study refers to mini-research that aims to test the main instrument of the survey, i.e., the questionnaire, in which similar members of the survey population offer their feedback, pre-testing involves assessing the proposed questionnaire on the survey population itself in a further attempt to identify potential issues or gaps with the data collection tool. The goal, thus, is to determine whether the proposed questionnaire and data collection procedures are adequate for the main study, constituting a final test of the exact questionnaire and implementation procedures before they are used in a study (Dillman et al., 2014).

To this effect, the bilingual questionnaire was distributed either in hardcopy or by email and returned by mail or email. From the 50 questionnaires sent, 33 responses were received, 2 of

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[38] The second section (part) was moved to the beginning of the survey following comments received by the academic experts.

which were incomplete. Based on the response sample (i.e., 31 valid responses), initial testing of the reliability of the constructs through a Cronbach's alpha test was conducted. Cronbach's alpha is most commonly used when you want to assess the internal consistency (Hinkin, 1995) of a questionnaire (or survey) comprising multiple Likert-type scales and items. Cronbach's alpha is generally the mean of all possible split-half coefficients.

Cronbach's alpha is a measure of internal consistency that indicates the extent to which the items on a scale are related to each other. It considers the number of factors in the scale and the strength of their correlations, and it can range from zero to one. Essentially, it measures the amount of variance shared among the factors, or the covariance among them. A high alpha value indicates that the factors are highly related and measure the same entity. In contrast, a low value suggests that the factors measure different entities and are not strongly correlated with each other (Hajjar, 2018).

The conceptual formula of Cronbach's alpha is defined by:

$$\alpha = \frac{K\bar{r}}{[1 + (K-1)\bar{r}]}$$

Here, K represents the number of items (factors), and $\bar{r}$ is the average correlation among all factors. The formula is based on the mean of the K(K-1)/2 non-redundant correlation coefficients in an upper or lower triangular correlation matrix.

Cronbach's alpha increases as the inter-correlations among test factors increase, indicating a higher level of internal consistency and reliability of the test. This suggests that the factors (in this case the questionnaire items) measure the same construct. However, it is essential to note that tests with different fundamental factorial structures may result in the same values of Cronbach's alpha. This means that Cronbach's alpha may not always be an accurate measure of the internal consistency of a data collection tool (in this case), especially when the factors measure many

unrelated latent constructs. Therefore, Cronbach's alpha is most useful when the factors measure different aspects of a single construct (Hajjar, 2018).

Alpha values were described by Taber (2018), as excellent (0.93–0.94), strong (0.91–0.93), reliable (0.84–0.90), robust (0.81), fairly high (0.76–0.95), high (0.73–0.95), good (0.71–0.91), relatively high (0.70–0.77), slightly low (0.68), reasonable (0.67–0.87), adequate (0.64–0.85), moderate (0.61–0.65), satisfactory (0.58–0.97), acceptable (0.45–0.98), sufficient (0.45–0.96), not satisfactory (0.4–0.55) and low (0.11) based on a survey of 69 different articles published in 4 leading science education journals in 2015, deploying Cronbach's Alpha as a measure of reliability.

Cronbach's Alpha calculations were performed for each component within the questionnaire's three sections. In the sections that follow, these calculations are presented.

4.4.1 Pilot Questionnaire Section A - Control Variables

Section A of the pilot questionnaire comprises the control variables[39]. The control section was divided into two components. Questions 1 - 8 refer to the first component that examines the demographics which are not presented on a Likert scale, and thus no Cronbach's Alpha value was calculated. The second component comprises 5 questions about social desirability on Likert scale. These aim to control for influences of a number of variables to identify the true effects of the study. From these five questions, the first and the last were negatively worded and therefore, new variables were coded to bring them in the same direction as the other three questions (Hays et al.,

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[39] In the final version of the questionnaire as presented in Appendix A this was moved to Section B, with Section A including the scenario questions.

1989). A value for these was estimated at 0.607. This is marginally above the criterion of >.60, accepted as it is consistent with literature (Hays et al., 1989).

4.4.2   Pilot Questionnaire Section B - Scenarios for the Hypothetical Federation

Section B has seven questions. The same seven questions are repeated in each of the four scenarios as outlined above.   The first three questions are about Compliance, whereas the remaining 4 are manipulation questions. The four scenarios as presented in the pilot Questionnaire were:

a.   No Reward / No Punishment (NRNP),

b.   No Reward / Severe Punishment (NRSP),

c.   High Reward / No Punishment (HRNP) and

d.   High Reward / Severe Punishment (HRSP).

As shown in Table 4.2, the results are acceptable but will be improved (especially under scenario HRSP) if the first of the seven questions is deleted. However, the decision whether to delete it or not was left to be made after the survey was undertaken; there was a possibility that the results would be improved with more observation.

Table 4.2: Cronbach's Alpha Estimates for Compliance Items
Scenario / Variable	Cronbach's Alpha	Remove item	Cronbach's Alpha if item deleted	Evaluation
NRNP	0.774	The first question	0.889	Acceptable but will improve to Good if the first question is deleted
NRSP	0.659	The first question	0.814	Questionable but will improve to Good if the first question is deleted
HRNP	0.676	The first question	0.809	Questionable but will improve to Good if the first question is deleted
HRSP	0.567	The first question	0.760	Poor but will improve to Acceptable if the first question is deleted
Source: Calculations in SPSS

4.4.3 Pilot Questionnaire Section C - Questions relating to the participant's own Federation

Section C questions refer to the respondents' own federation with a total of 23 questions over five topics. Each topic has been treated as a component. Namely: Governance *Culture* with eight questions, Governance *Policy* with five questions, Governance *Training* with four questions, Governance *Monitoring* with three questions and Governance *Capacity* with three questions.

As shown in Table 4.3, the results for Culture, Policy, Training and Monitoring components should be retained. The capacity component appeared problematic, but the final decision whether to be deleted or not was left to be taken during scale validation once the survey is undertaken [40].

Table 4.3: Cronbach's Alpha Estimates for Own Federation Items

Scenario / Variable	Cronbach's Alpha	Remove item	Cronbach's Alpha if item deleted	Evaluation
Governance *Culture*	0.828	8	0.918	Good, but it will improve to Excellent if the last (8th) question is deleted
Governance *Policy*	0.895	5	0.928	Almost Excellent but can improve slightly if the last (5th) question is deleted
Governance Training	0.890	All items appeared to be worthy of retention, resulting in a decrease in the alpha if deleted	N/A	Almost Excellent
Governance *Monitoring*	0.905		N/A	Excellent
Governance *Capacity*	0.418	The removal of any item will not improve α	N/A	Unacceptable – Possible deletion of the whole section when the survey is undertaken

Source: Calculations in SPSS

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[40] All three items of the capacity component (or topic) were deleted.

Building on the results obtained from the pilot questionnaire, a preliminary assessment of potentially problematic variables was established. However, as mentioned earlier, the decision not to eliminate any of the potentially problematic scale items identified during the pilot study was made. This choice was informed by the understanding that an item that appears problematic in a pilot study may perform differently when tested with a larger and more diverse sample (Cook et al., 1979). Therefore, any decisions regarding item removal were deferred until the full survey results could be analysed.

The only modification made to the questionnaire, influenced by feedback from multiple participants in the pilot study, involved relocating the section containing the scenario questions to the beginning of the survey. This adjustment was motivated by two main reasons. Firstly, since this segment presented the most demanding aspect of the study, it was deemed preferable to address it first. Secondly, to prevent any potential confusion, it was decided that the responses related to the hypothetical federation and the participant's own federation should not immediately follow each other.

Based on these considerations, the final questionnaire was developed, and it is presented in detail in Appendix B.

4.5 Step 4: Survey administration and sample size: Gathering enough data from the right people

As previously stated, the study's population consists of the board members of the NSFs in Cyprus. As this is a finite number (approximately 550, roughly nine board members per federation), all members of the NSFs were invited through their federation to participate. Therefore, there was no need for any sampling technique to be implemented. In total, 223 questionnaires, of which 26 were partly incomplete, have been received. A response rate of approximately 40% of

the total estimated population. A response rate that is in line with the average online survey response rate of 44.1% as reported by Wu et al. (2022) but also validated by the quality characteristics described by Cohen et al. (2000) who emphasise the acceptability of a response rate depends on various factors, including the research context, objectives, and target population.

From these 26 incomplete questionnaires, 24 were missing replies in just 1 or 2 variables. All 223 questionnaires replied to all the questions of Section A [41] (scenario questions). Irrespective of the missing data, these replies have been included in the data analysis in SPSS. Each of the 223 participants that replied to Section A was given four trials (one trial per scenario) that followed the experiment's 2 x 2 x 2 mixed design (see Table 4.1). Thus, the overall sample size for the compliance scenarios in this research is 892, and the four high certainty of control scenarios have 112 observations, while the four low or no certainty of control scenarios have 111 observations.

The questionnaire was administrated through the online platform of Qualtrics [42] , and respondents had the option to choose to reply in either Greek or English. Two methods to collect the data were used. In the preferred method, that aimed to increase participation rates, and to enhance the experimental design, the researcher attended a board meeting of federations, explained the purpose of the study, and then asked board members to reply to the questionnaire. *"The presence of the researcher is helpful in that it enables any queries or uncertainties to be addressed immediately with the questionnaire designer. Further, it typically ensures a good response rate"* (Cohen et al., 2000, p. 344).

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[41] As a reminder Section A includes the scenarios with compliance and manipulation questions of the theoretical federation.

[42] https://uclan.eu.qualtrics.com/jfe/form/SV_elC6ScJCbatUIZw

When the researcher physically attended the board meetings (21 cases), he provided the board members with tablets with a link to the survey in Qualtrics. The researcher left the room, and the board members replied anonymously to the questionnaire. The researcher then returned to thank the board members and collect the tablets. In the cases of online meetings (3 cases), the researcher joined the meeting, explained the study's purpose, and distributed the link. This approach helped to increase the response rate and the validity of the received responses. In total, 24 federations accepted this invitation. For the remaining federations (37) that did not respond to the invitation, the questionnaire link was sent to them via email (with two follow-up reminder emails), asking to be distributed that it the board members for completion. The survey administration took place from June 2022 until March 2023. Appendix C presents a comprehensive analysis of the descriptive statistics of the measurements used in the study for the three sections of the questionnaire.

4.6   Step 5: Item Reduction Analysis

"In scale development, item reduction analysis is conducted to ensure that only parsimonious, functional and internally consistent items are ultimately included" (Boateng *et al.*, 2018, p. 9). One approach to item reduction is to use components of items that are intended to measure the same construct and to identify which items in each component are the most important or informative. These items should be conceptually related and have been designed to measure the same construct.

For this study, the inter-item and corrected item-total correlations technique has been used for 7 of the eight components presented in Table 4.4 [43], i.e., not for the component related to the manipulation questions, as these are merely used to check the consistency of the respondents replies and not their actual behaviour.

The components were developed based on the relevant literature (Chen et al., 2012) and the researcher's expectations. These were further confirmed with factor analysis as presented in the next section.

Inter-item and item-total correlations are statistical techniques used to evaluate the reliability and validity of a measurement instrument, such as the questionnaire used in this study (Field, 2018).

Inter-item correlations are a measure of how closely related two or more items on a survey or questionnaire are, intended to assess the degree to which they are measuring the same construct. Essentially, inter-item correlations determine whether or not multiple items measure the same underlying construct. This is done by calculating the correlation coefficient between each pair of items that are intended to measure the same construct.

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[43] In comparison to the pilot survey analysis a further component was created, increasing the components from 7 to 8, separating the 7 questions of the scenarios into two components. One for the three compliance questions and one for the four manipulation questions.

Table 4.4: Questionnaire Components

	Component	Scale items	Number of Questions
1	Hypothetical Federation - Scenarios Compliance	The questions refer to compliance questions of the hypothetical federation in Section A of the questionnaire's four scenarios with reward or punishment.	Same 3 questions in the 4 scenarios
2	Hypothetical Federation - Scenarios Manipulation	The questions refer to the manipulation questions of the hypothetical federation in the four scenarios with reward or punishment in Section A of the questionnaire.	Same 4 questions in the 4 scenarios
3	SDRS	Socially Desirable Response Set in Section B of the questionnaire.	5 questions
4	Governance Culture	Questions referring to the respondent's own federation governance culture in Section C of the questionnaire.	8 questions
5	Governance Policy	Questions referring to the respondent's own federation governance policies in Section C of the questionnaire.	5 questions
6	Governance Training	Questions referring to the respondent's own federation training on governance issues in Section C of the questionnaire.	4 questions
7	Governance Monitoring	Questions referring to the respondent's own federation view on whether CSO will monitor governance compliance in Section C of the questionnaire.	3 questions
8	Governance Capacity	Questions referring to the respondent's own federation capacity to implement governance principles in Section C of the questionnaire.	3 questions

On the contrary, item-total correlations measure the correlation between each individual item and the overall score of the measurement tool. This method requires computing the correlation coefficient between each item and the sum of all items that measure the same underlying construct. Item-total correlations can offer valuable information on the contribution of each individual item to the overall measurement of the construct. More specifically, the corrected [44] item-total

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[44] The difference between Item-to-total correlation (ITC) and corrected item-to-total correlation (CITC) is that CITC is calculated by correlating each item score with the total score of all other items in the same scale, excluding the item being correlated. CITC provides a more accurate estimate of the true

correlation, which examines the correlation between the item and the sum score of the rest of the items excluding itself, will be utilised in this survey.

Overall, inter-item and item-total correlations can provide valuable information about the reliability and validity of a measurement instrument and can help researchers make informed decisions about how to interpret their data (DeVellis, 2012).

According to Clark and Watson (1995), average inter-item correlations should fall somewhere between 0.15 and 0.50, as anything below 0.15 would be too broad of a construct, while anything above 0.50 would suggest that the items are measuring essentially the same thing and may be redundant. Items with very low inter-item correlations and corrected item-total correlations (<0.30) are less desirable and could be a cue for potential deletion from the potential scale.

Similarly, as a general guideline in empirical research, Robinson et al. (1991) recommend that construct validity is satisfied if the item-total correlations score is above 0.50 and the inter-item correlations exceed 0.30. On the other hand, Briggs and Cheek (1986) recommend an optimal range for the inter-item correlation of 0.2 to 0.4 and Pallant (2016) states that item-total with values less than 0.3 indicate that the item is measuring something different from the scale as a whole. Pallant (2016, p. 119) further comments that "*if your scale's overall Cronbach alpha is too low (e.g., less than .7) and you have checked for incorrectly scored items, you may need to consider removing items with low item-total correlations.*"

Following these guidelines, to establish internal consistency, reliability, and validity of the scale of this study, the following rule of thumb will be considered in combination:

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relationship between an individual item and the overall construct being measured, by accounting for the overlap with other items in the same scale.

- o Cronbach's alpha coefficient[45]: A value higher than 0.70 is considered acceptable,

- o Inter-item correlation: A value higher than 0.20 is considered acceptable, but if too high, i.e., above 0.5, an item's retention will be decided in conjunction with the results of its Cronbach's alpha coefficient and corrected item-total correlation,

- o Corrected Item-total correlation: A value higher than 0.30 is considered acceptable.

These values suggest a moderate to high degree of correlation between the items, as well as a satisfactory level of internal consistency among the items measuring the same construct.

4.6.1 Component 1: Hypothetical Federation - Scenarios Compliance questions

For the four scenarios (the same three questions in each scenario) of Component 1, the inter-item correlations and corrected item-total correlations were separately calculated as different components, along with the Cronbach's Alpha analysis, as presented in Table 4.5. Note that the first question (of the three) was negatively worded[46]. As such, a new variable was coded to bring it in the same direction as the other two questions in SPSS.

In accordance with the aforementioned guidelines, the first of the compliance questions in all four scenarios (in boldface) must be dropped as their Inter-Item correlation values are below 0.2, and their Corrected Item-total correlation values are below 0.3.

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[45] Cronbach's alpha coefficient was presented in detail in section 4.3
[46] Negatively worded items are used to balancing positivity and negativity in the tone of the survey, control response bias, and detect careless responding.

Table 4.5: Component 1: Inter-item, item-total and Cronbach's Alpha estimates								
Component	Cronbach's Alpha	Item	N of Cases	Inter-Item Correlation Matrix			Item-Total Statistics	
Scenarios Compliance				1	2	3	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
No Reward and No Punishment	0.488	**1**	**223**	1	**0.029**	**0.097**	**0.071**	**0.740**
		2	223	0.029	1	0.588	0.423	0.176
		3	223	0.097	0.588	1	0.480	0.057
High Reward and No Punishment	0.469	**1**	**223**	1	**0.028**	**0.056**	**0.047**	**0.736**
		2	223	0.028	1	0.583	0.340	0.106
		3	223	0.056	0.583	1	0.341	0.055
No Reward and Severe Punishment	0.494	**1**	**223**	1	**-0.017**	**0.090**	**0.042**	**0.785**
		2	223	-0.017	1	0.648	0.443	0.164
		3	223	0.090	0.648	1	0.526	-0.035
High Reward and Severe Punishment	0.479	**1**	**223**	1	**0.064**	**0.050**	**0.063**	**0.751**
		2	223	0.064	1	0.602	0.458	0.095
		3	223	0.050	0.602	1	0.437	0.120
Source: Calculations in SPSS								

If deleted, the Cronbach's Alpha of the component in all four scenarios will significantly improve from below 0.5 (which is unacceptable) to above 0.7 (which is acceptable). The Inter-Item correlation values of the remaining two questions in the four scenarios range from 0.588 to 0.648 in the four scenarios, which are slightly above the 0.05 threshold. The corrected item-total correlations for both questions in all four scenarios are above the 0.30 threshold, and Cronbach's Alpha ranges from 0.736 to 0.785. Based on these findings, the two questions are retained (despite the slightly high inter-item correlations), and the first one is dropped. [Cronbach's Alpha was also estimated by grouping all the 892 responses of the three compliance questions (223*4) in order to check if the results would be significantly different. The results confirmed the decision to delete the first question as deleting it would increase Cronbach's Alpha from 0.499 to 0.761, its inter-item

correlation values for the other two questions were 0.038 and 0.083, and its Corrected Item-Total Correlation was 0.068.]

4.6.2 Component 2: Hypothetical Federation - Scenarios Manipulation questions

These manipulation questions are not designed to measure any latent construct and, they are not included in the item reduction analysis of this and the remaining sections of the scale development.

4.6.3 Component 3: Socially Desirable Response Set questions

For the five questions of Component 3, Socially Desirable Response Set (SDRS), the inter-item correlations, and corrected item-total correlations were calculated along with the Cronbach's Alpha analysis as presented in Table 4.6. Note that questions 1 and 5 of the SDRS were negatively worded, and as such, new variables were coded to bring them in the same direction as the other three questions in SPSS.

Table 4.6: Component 3: Inter-item, item-total, and Cronbach's Alpha estimates										
Compon ent	Cronbach's Alpha	Item	N of cases	Inter-Item Correlation Matrix					Item-Total Statistics	
				1	2	3	4	5	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SDRS	0.842	1	222	1	0.563	0.548	0.382	0.653	0.676	0.804
		2	222	0.563	1	0.571	0.352	0.673	0.681	0.801
		3	222	0.548	0.571	1	0.518	0.582	0.705	0.793
		4	222	0.382	0.352	0.518	1	0.332	0.475	0.854
		5	222	0.653	0.673	0.582	0.332	1	0.714	0.792
Source: Calculations in SPSS										

Based on the above table, all five questions of the SDRS component are retained as the Inter-Item correlation values range from 0.332 to 0.673, the corrected item-total correlations are above the 0.30 threshold, and Cronbach's Alpha score of 0.842 will not substantially improve if any items are deleted.

4.6.4   Component 4 – Own Federation Governance Culture questions

For the eight questions of Component 4, Own Federation Governance Culture, the inter-item correlations, and corrected item-total correlations were separately calculated along with the Cronbach's Alpha analysis as presented in Table 4.7.

The table indicates that the eighth question (in boldface) needs to be deleted as its Inter-Item correlation values are below 0.2, and its Item-Total value is below 0.3. If deleted, the Cronbach's Alpha of the component will improve from below 0.882 to 0.930. The Inter-Item correlation values of the remaining seven questions range from 0.521 to 0.818 which are above the 0.2 threshold.   However, the corrected item-total correlations are above the 0.30 threshold, and Cronbach's Alpha will deteriorate if any item is deleted. As such, the remaining seven questions are retained.

Table 4.7: Component 4: Inter-item, item-total and Cronbach's Alpha estimates													
Component	**Cronbach's Alpha**	**Item**	**N of Cases**	**Inter-Item Correlation Matrix**								**Item-Total Statistics**	
				1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**
Own Federation Governance **Culture**	0.882	1	214	1	0.611	0.570	0.535	0.521	0.616	0.555	0.019	0.640	0.869
		2	214	0.611	1	0.818	0.759	0.732	0.681	0.573	0.033	0.809	0.852
		3	214	0.570	0.818	1	0.788	0.786	0.701	0.562	0.024	0.816	0.850
		4	214	0.535	0.759	0.788	1	0.718	0.663	0.547	0.065	0.781	0.855
		5	214	0.521	0.732	0.786	0.718	1	0.794	0.608	0.036	0.806	0.852
		6	214	0.616	0.681	0.701	0.663	0.794	1	0.614	0.031	0.785	0.854
		7	214	0.555	0.573	0.562	0.547	0.608	0.614	1	0.114	0.674	0.865
		8	**214**	**0.019**	**0.033**	**0.024**	**0.065**	**0.036**	**0.031**	**0.114**	1	**0.054**	**0.930**
Source: Calculations in SPSS													

4.6.5   Component 5 – Own Federation Governance Policy questions

For the five questions of Component 5, Own Federation Governance Policy, the inter-item correlations, and corrected item-total correlations were separately calculated along with the Cronbach's Alpha analysis as presented in Table 4.8.

Table 4.8: Component 5: Inter-item, item-total, and Cronbach's Alpha estimates

Component	Cronbach's Alpha	Item	N of Cases	Inter-Item Correlation Matrix					Item-Total Statistics	
				1	2	3	4	5	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Own Federation Governance **Policy**	0.921	1	217	1	0.760	0.611	0.621	0.540	0.702	**0.922**
		2	217	0.760	1	0.771	0.723	0.680	0.842	0.894
		3	217	0.611	0.771	1	0.805	0.733	0.836	0.895
		4	217	0.621	0.723	0.805	1	0.770	0.836	0.895
		5	217	0.540	0.680	0.733	0.770	1	0.767	0.909
Source: Calculations in SPSS										

Building upon the preceding analysis, it was determined that all five questions within the governance policy component should be retained, even though the inter-item correlation values fall within the range of 0.540 to 0.805, exceeding the specified 0.5 threshold. This decision was based on the observation that the corrected item-total correlations surpass the 0.30 threshold, and that the removal of any individual item would not result in a significant improvement in Cronbach's Alpha.

4.6.6   Component 6 – Own Federation Governance Training questions

For the four questions of Component 6, Own Federation Governance Training, the inter-item correlations, and corrected item-total correlations were separately calculated along with the Cronbach's Alpha analysis as presented in Table 4.9.

Table 4.9: Component 6: Inter-item, item-total, and Cronbach's Alpha estimates									
Component	**Cronbach's Alpha**	**Item**	**N of Cases**	**Inter-Item Correlation Matrix**				**Item-Total Statistics**	
				1	**2**	**3**	**4**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**
Own Federation Governance **Training**	0.919	1	213	1	0.757	0.691	0.689	0.774	0.910
		2	213	0.757	1	0.829	0.733	0.860	0.879
		3	213	0.691	0.829	1	0.750	0.836	0.888
		4	213	0.689	0.733	0.750	1	0.790	0.903
Source: Calculations in SPSS									

In accordance with the information presented in the table above, all four questions within the Own Federation Governance Training component are retained. This decision is made even though the inter-item correlation values range from 0.689 to 0.829, exceeding the preferred 0.5 threshold. The rationale behind this choice lies in the observation that the corrected item-total correlations consistently surpass the 0.30 threshold, and removing any individual item would not result in an improvement in Cronbach's Alpha.

4.6.7   Component 7 – Own Federation Governance Monitoring questions

For the three questions of Component 7, Own Federation Governance Monitoring, the inter-item correlations, and corrected item-total correlations were separately calculated along with the Cronbach's Alpha analysis as presented in Table 4.10.

Table 4.10: Component 7: Inter-item, item-total, and Cronbach's Alpha estimates

Component	Cronbach's Alpha	Item	N of Cases	Inter-Item Correlation Matrix			Item-Total Statistics	
Scenarios Compliance				**1**	**2**	**3**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**
Own Federation Governance **Monitoring**	0.847	1	213	1	0.606	0.630	0.670	0.828
		2	213	0.606	1	0.706	0.727	0.773
		3	213	0.630	0.706	1	0.746	0.755
Source: Calculations in SPSS								

Based on the above table, all three questions of the Own Federation Governance Monitoring component are retained. This was decided although the Inter-Item correlation values range from 0.606 to 0.706 exceeding the preferred 0.5 threshold. This decision was taken as the corrected item-total correlations are above the 0.30 threshold and because if any item is deleted, Cronbach's Alpha will deteriorate.

4.6.8   Component 8 – Own Federation Governance Capacity questions

For the three questions of Component 8, Own Federation Governance Capacity, the inter-item correlations, and corrected item-total correlations were separately calculated along with the Cronbach's Alpha analysis as presented in Table 4.11.

Based on the table below, question 3 of the Own Federation Governance Capacity component will be dropped as the inter-item correlation values are 0.319 with question 1 (which is acceptable) and 0.151 with question 2 (which is not acceptable). The corrected item-total correlation is below the 0.30 threshold, and if the item is deleted, Cronbach's Alpha will improve to 0.632 from 0.578. With an α value (Cronbach's Alpha) of 0.632, the Capacity component is below the 0.70 threshold. Theoretically, it could be dropped, but as there are only three items in the component and the inter-item and item-total correlations are within the acceptable range, the

component will be retained with two questions to be further examined through factor analysis in the next section[47].

Table 4.11: Component 8: Inter-item, item-total, and Cronbach's Alpha estimates

Component	Cronbach's Alpha	Item	N of Cases	Inter-Item Correlation Matrix			Item-Total Statistics	
				1	**2**	**3**	**Corrected Item-Total Correlation**	**Cronbach's Alpha if Item Deleted**
Scenarios Compliance								
Own Federation Governance Capacity	0.578	1	217	1	0.469	0.319	0.530	0.249
		2	217	0.469	1	0.151	0.399	0.478
		3	**217**	**0.319**	**0.151**	1	**0.266**	**0.632**
Source: Calculations in SPSS								

4.7   Step 6: Extraction of Factors

The process of determining the optimal number of factors or domains that suit a given set of items is referred to as factor extraction. This is accomplished using factor analysis, a type of regression model that employs observed standardised variables that are regressed against unobserved (i.e., latent factors). Since both the variables and factors are standardised, the bivariate regression coefficients serve as correlations that depict the loading of each observed variable on every factor. Factor analysis is utilised to comprehend a set of items' latent (internal) structure, including the degree to which the connections between the items are internally consistent (Boateng *et al.*, 2018).

There are some basic assumptions underlying factor analysis, primarily with sample size and the strength of the relationship among the variables (or items). Regarding sample size, *"there*

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[47] Where the decision was taken to drop the whole component.

is little agreement among authors concerning how large a sample should be, the recommendation generally is: the larger, the better" (Pallant, 2016, p. 204). According to Tabachnick and Fidell (2013), having a sample size of at least 300 cases is preferred for factor analysis. Still, they do acknowledge that a smaller sample size of 150 cases may be acceptable if the factor solution includes several high-loading marker variables (above 0.80). Some authors suggest that it is not the overall sample size that is of concern—instead, the ratio of participants to items or questions (Pallant, 2016). Nunnally (1978), cited in Pallant (2016), suggests a ratio of 10 to 1, meaning ten cases per item to be included in factor analysis. Tabachnick and Fidell (2013), on the other hand, propose that in most cases a ratio of five cases per item is sufficient. Therefore, this survey, consisting of a sample of 223 cases (and 892 regarding the compliance questions) and Section C of the survey has the higher number of questions 27 (before some were dropped), meets both criteria with a ratio of 8.3.

The second issue that needs to be considered is the strength of intercorrelations among the items. Tabachnick and Fidell (2013) suggest examining the correlation matrix for coefficients greater than 0.3. If there are only a few correlations above this level, factor analysis may not be suitable (Tabachnick & Fidell, 2013). To assess the factorability of the data, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy can be used (Field, 2018). Bartlett's test of sphericity should be significant ($p < .05$) for factor analysis to be appropriate. The KMO index ranges from 0 to 1, and all measures should be greater than 0.6 at a bare minimum (Field, 2018). In addition, the proportion of common variance[48] present in a

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[48] Common variance is the variance in a set of variables that is due to a common factor. This common factor can be anything that influences all of the variables, such as the measurement method, the characteristics of the sample, or the context in which the data is collected. Common variance is important

variable (Communality[49]) is presented. A variable with no unique variance (or random variance) would have a communality of 1; a variable that shares none of its variance with other variables would have a communality of 0 (Field, 2018). Low values (e.g., less than 0.3) could indicate that the item does not fit well with the other items in its component (Pallant, 2016).

4.7.1 Exploratory factor analysis (EFA)

To identify the factors to be extracted this research conducted exploratory factor analysis (EFA) using the principal component analysis (PCA) with varimax rotation. At first, the EFA was conducted using all the scale items that were retained following the previous section. For the Compliance Intention of the four scenarios in Section A, a mean of the two questions retained was calculated, creating two new variables, Compliance Intention 2, and Compliance Intention 3.

Before conducting factor analysis, the adequacy of the initial model is examined. First, all variables have correlations of at least 0.30 with at least one other item. Second, the KMO measure of sampling adequacy was reported at 0.887, above the acceptable value of 0.60, and Bartlett's test of sphericity is statistically significant ($\chi^2(378) = 4120.551$, $p < .001$), supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of six components with eigenvalues exceeding 1[50]. Eigenvalues are a criterion for determining the number of factors to retain. The six extracted factors in this model explain about 73.3% of the variance (see Table 4.12), each explaining 34.9%, 12.3%, 10.6%, 6.2%, 5.31% and 4.0% of the variance, respectively.

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in research because it can affect the results of statistical tests. If two variables are highly correlated due to common variance, it can be difficult to determine whether they are truly related to each other or whether the relationship is simply due to the common factor.

[49] How much of the variance in each item is explained.

[50] Eigenvalue is the variance of each factor, and the factor does not explain the variance of one variable if eigenvalue is less than one (Field, 2018).

This is further supported by an examination of the Screeplot (Figure 4.2). The number of components to retain is determined by the number of components that have eigenvalues above the elbow point. The elbow point is the point on the Screeplot where the slope of the line begins to level off, also referred to as the point of inflexion (Field, 2018). This indicates the number of factors or components to retain in the model. Components above the elbow point are considered significant and should be retained, while those below the elbow point can be discarded (Field, 2018; Pallant, 2016).

Figure 4.2: Screeplot
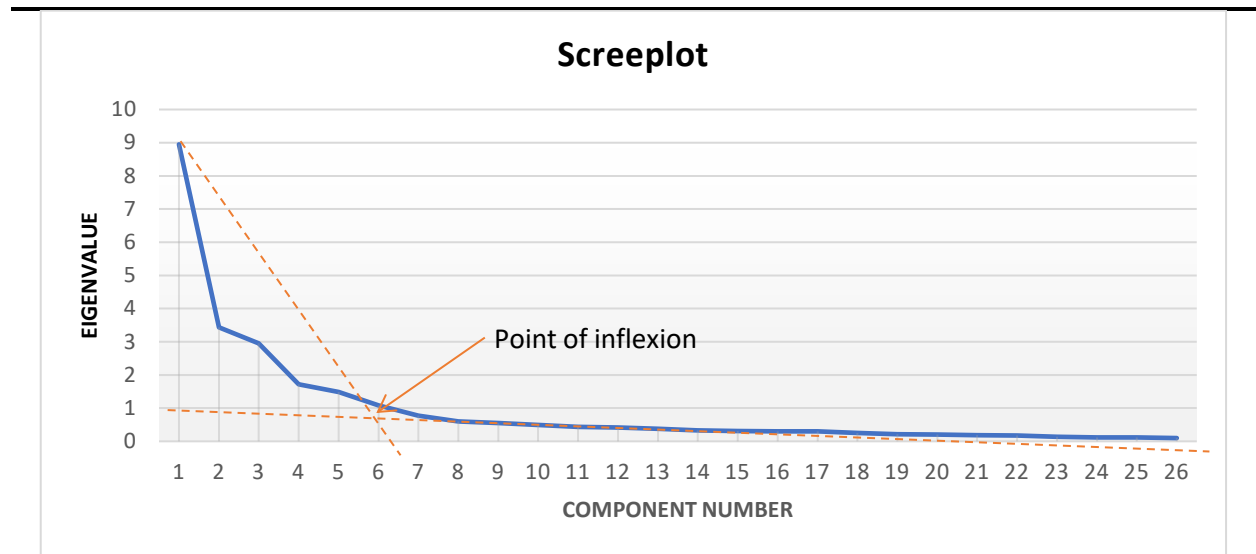
Source: Calculations in SPSS

Table 4.12 shows the values of factor loadings (λ) and communalities of all 28 variables of the three sections of the questionnaire retained after the reduction of the previous section. The communality value is adequate for verifying that all 28 variables are essential for determining the initial factor model. Factor loading shows the relationship between the extracted factor and variables – i.e., how well variables explain the extracted factors. There is no absolute cut-off value for factor loadings; generally, a value of 0.50 is acceptable (Field, 2018).

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However, there is some room for modification in the model. That is although the two remaining variables of Governance Capacity (Governance Capacity 1 and Governance Capacity 2) present a factor loading or more than 0.50 (0.605 and 0.542 respectively) a decision was taken to remove them because these two did not create a component (or domain) on their own, as theoretically expected, and are mislocated in factors 1 and 5, respectively. In other words, capacity in its own right does not seem to affect compliance. The modification process contributes to yielding clear and robust factor structures. In particular, removing the two mislocated variables makes the conceptualisation of the six factors easier.

Table 4.12: Pattern and structure coefficients - Factor Loadings (λ) and Communalities

Indicator items	F1 Governance Culture	F2 Governance Policy	F3 Social Desirability	F4 Governance Training	F5 Governance Monitoring	F6 Compliance Intention	Communalities
Compliance Intention 2						0.904	0.843
Compliance Intention 3						0.893	0.855
Social Desirability 1			0.813				0.700
Social Desirability 2			0.832				0.711
Social Desirability 3			0.813				0.696
Social Desirability 4			0.602				0.414
Social Desirability 5			0.849				0.739
Governance Culture 1	0.708						0.571
Governance Culture 2	0.804						0.786
Governance Culture 3	0.834						0.813
Governance Culture 4	0.808						0.747
Governance Culture 5	0.878						0.806
Governance Culture 6	0.844						0.757
Governance Culture 7	0.779						0.639
Governance Policy 1		0.777					0.735
Governance Policy 2		0.848					0.832
Governance Policy 3		0.865					0.822
Governance Policy 4		0.868					0.813
Governance Policy 5		0.830					0.779
Governance Training 1				0.793			0.778
Governance Training 2				0.818			0.843
Governance Training 3				0.756			0.826
Governance Training 4				0.736			0.767
Governance Monitoring 1					0.674		0.644
Governance Monitoring 2					0.768		0.783
Governance Monitoring 3					0.693		0.757
Governance Capacity 1	0.605						0.602
Governance Capacity 2					0.542		0.461
Eigenvalue	*9.773*	*3.433*	*2.973*	*1.732*	*1.493*	*1.117*	
Variance explained (%)	*34.904*	*12.260*	*10.617*	*6.185*	*5.331*	*3.990*	
Cumulative variance (%)	*34.904*	*47.164*	*57.781*	*63.966*	*69.297*	*73.287*	

Extraction Method: Principal Component Analysis.   Rotation Method: Varimax with Kaiser Normalisation.

Source: Calculations in SPSS

4.7.2   Exploratory factor analysis (EFA) Revised

After eliminating the two mislocated variables, the revised model for the 26 variables does not violate the basic assumptions of factor analysis. The KMO measure of sampling adequacy is 0.880, and Bartlett's test of sphericity is statistically significant (χ^2 (325) = 3895.955, p < .001). The revised model also has six components with eigenvalues higher than one: Governance Culture, Governance Policy, Social Desirability, Governance Training, Governance Monitoring, and Compliance Intention. The revised model explains 75.5% of the variance (see Table 4.13), each explaining 34.4%, 13.2%, 11.3%, 6.6%, 5.7% and 4.1%, respectively. The Screeplot essentially remains the same and is not reported again. The communalities values of the 26 variables are acceptable because all values are over 0.30, and most of them are above 0.60. The values of factor loadings for the revised model are higher than 0.602 (and 0.683 if we exclude factor 4 in the Social Desirability variables). Therefore, all variables are appropriate for conducting factor analysis. Overall, the revised model is better than the initial model because the explanatory power of the six factors improves approximately by 2.2% (from 73.3% to 75.5%), and there are no mislocated or less-associated variables in the extracted six factors.

Table 4.13: Revised Pattern and structure coefficients - Factor Loadings (λ) and Communalities

Indicator items	F1 Governance Culture	F2 Governance Policy	F3 Social Desirability	F4 Governance Training	F5 Governance Monitoring	F6 Compliance Intention	Communalities
Compliance Intention 2						0.904	0.842
Compliance Intention 3						0.896	0.856
Social Desirability 1			0.811				0.695
Social Desirability 2			0.831				0.706
Social Desirability 3			0.810				0.689
Social Desirability 4			0.602				0.416
Social Desirability 5			0.843				0.730
Governance Culture 1	0.683						0.551
Governance Culture 2	0.810						0.788
Governance Culture 3	0.840						0.817
Governance Culture 4	0.819						0.755
Governance Culture 5	0.885						0.814
Governance Culture 6	0.848						0.766
Governance Culture 7	0.766						0.630
Governance Policy 1		0.794					0.746
Governance Policy 2		0.846					0.832
Governance Policy 3		0.864					0.824
Governance Policy 4		0.860					0.808
Governance Policy 5		0.835					0.786
Governance Training 1				0.803			0.780
Governance Training 2				0.836			0.854
Governance Training 3				0.774			0.831
Governance Training 4				0.752			0.769
Governance Monitoring 1					0.744		0.729
Governance Monitoring 2					0.795		0.815
Governance Monitoring 3					0.732		0.791
Eigenvalue	*8.949*	*3.439*	*2.949*	*1.723*	*1.483*	*1.078*	
Variance explained (%)	*34.419*	*13.227*	*11.341*	*6.627*	*5.702*	*4.146*	
Cumulative variance (%)	*34.419*	*47.647*	*58.988*	*65.615*	*71.317*	*75.463*	

Extraction Method: Principal Component Analysis.   Rotation Method: Varimax with Kaiser Normalisation.

Source: Calculations in SPSS

4.8   Step 7: Tests of Dimensionality

The dimensionality test in which the hypothesised factors or factor structure extracted from

a previous model is tested at a different time point in a longitudinal study or, ideally, on a new

sample (Boateng *et al.*, 2018). As this is not the case in the present survey, Step 7 (tests of dimensionality) of Boateng *et al.* (2018) is omitted.

4.9   Step 8: Tests of reliability – establishing if responses are consistent when repeated

Table 4.14: Cronbach's alpha, and Composite reliability

	F1 Governance Culture	F2 Governance Policy	F3 Social Desirability	F4 Governance Training	F5 Governance Monitoring	F6 Compliance Intention
Cronbach's alpha (α)	0.930	0.921	0.842	0.919	0.847	0.882
Composite Reliability (CR)	0.930	0.923	0.888	0.870	0.802	0.895

Source: Calculations in SPSS and Excel

Reliability refers to the consistency or stability of measurements or responses over time, across different situations, or among different raters. It indicates how free the scale is from random error (Pallant, 2016). It is an essential aspect of research, as it allows us to assess the degree to which our data is dependable and trustworthy. In this research, the scale's reliability is tested using two methods: a) Cronbach's alpha and b) Composite Reliability (Hair et al., 2009; Shrestha, 2021).

4.9.1   Cronbach's alpha

Cronbach's alpha reliability test was performed on the six components extracted in Section 4.6 (Step 6: Extraction of Factors). Although Cronbach's alphas have been calculated in Section 4.5 (Step 5: Item Reduction Analysis) based on the conceptual components, with satisfactory results, they are calculated again to accommodate the changes made in Section 4.6 (Step 6: Extraction of Factors). As a reminder, during the extraction of factors, in the Compliance Component for the two retained compliance intention items of the four scenarios, a mean was calculated, creating two new variables, Compliance Intention 2 and Compliance Intention 3. Also, from the Culture Component, question 8 was dropped. Furthermore, the remaining 2 questions referring to capacity were dropped as they failed to load as a different component and were loading in other components. The results of Cronbach's alpha reliability test are presented in Table 4.14.

With all values being well above the 0.70 threshold (see section 4.3 for a discussion on Cronbach's alpha), the scale developed is considered reliable.

4.9.2 Composite Reliability.

The second method used to test the scale's reliability is composite reliability. Composite reliability is a method used to evaluate the consistency of a scale's items (Shrestha, 2021). As (Fornell & Larcker, 1981) described, composite reliability indicates the extent to which the observed variables used to measure a latent construct share variance. To calculate the composite reliability for each construct, one must square the completely standardised factor loadings of the indicators and then divide this sum by the sum of squared factor loadings plus the total variance of the error term for the ith indicators. Composite reliability (CR) can be calculated with the following formula:

$$CR = \frac{\Sigma_{i=1}^{n}\lambda_i^2}{\Sigma_{i=1}^{n}\lambda_i^2 + \Sigma_{i=1}^{n}Var(e_i)} \ .$$

Here, n is the number of items, λ_i the factor loading of item i, and Var (e_i) the variance of the error of item i. A composite reliability of 0.70 or greater is acceptable (Fornell & Larcker, 1981), showing that measurements are reliable.

Table 4.14 presents the Composite Reliability calculations based on the factor loadings (see Table 4.13) and the above formula for each component. Calculations are presented in Appendix D. The composite reliability values of the components range from 0.8 to 0.9, further supporting the reliability of the scale developed.

4.10 Step 9: Test of Validity

The final Step Boateng *et al.* (2018) proposed is the validity test. Whereas reliability aims to identify the extent to which a variable impacts a set of items, validity refers to whether the variable is the fundamental reason for the covariation among the items. If a scale is reliable, the

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variation in its scores can be attributed to the authentic score of a phenomenon that affects all the items causally (DeVellis, 2012) or scale validity is the extent to which *'an instrument indeed measures the latent dimension or construct it was developed to evaluate'* (Raykov & Marcoulides, 2011).

Although Boateng et al., (2018), in their proposed methodology for scale development, have the test on validity as the last Step in the process, they stress that validation is a continuous procedure that spans the entirety of a research study, from defining the scope of the study in Step 1 to ensuring generalisability with other constructs in Step 9. As such, content validity, also known as "theoretical analysis", which assesses whether the items in the Likert scale are relevant and appropriate for measuring the construct of interest, has been assessed in Step 2 with both an evaluation from the "Target Population" and an "Evaluation by Experts".

Step 9 will progress with the aim of validating the scale developed through construct validity. Construct validity is used to determine whether the Likert scale actually measures the construct it is intended to measure. To evaluate construct validity, it's necessary to test a scale against a single criterion and based on hypotheses derived from the theoretical nature of the underlying variable or construct. This involves examining the relationship between the construct and other related constructs (convergent validity), as well as unrelated constructs (discriminant validity) (Pallant, 2016).

4.10.1 Convergent Validity

Incorporating the Fornell and Larcker (1981) Average Variance Extracted (AVE) criterion for convergent validity along with construct reliability, Hair *et al.* (2009) suggested that there is

evidence for convergent validity in a measurement model when all three of the following conditions are met:

(a) Composite reliability (CR) values are 0.7 or greater. CR is a measure of the internal consistency of the indicators used to measure the construct, and a CR value of 0.7 or greater indicates that the indicators are highly reliable and consistent in measuring the construct.

(b) All standardised factor loadings (λ) are 0.5 or greater. Standardised factor loadings represent the strength of the relationship between the indicator and the construct, and a λ value of 0.5 or greater suggests that the indicator is strongly related to the construct.

(c) AVE values are 0.5 or greater. AVE is a measure of the amount of variance in the indicators explained by the construct, and a value of 0.5 or greater indicates that the construct explains a substantial amount of the variance in the indicators. The average variance extracted is the sum of squared loadings divided by the number of items and is given by:

$$AVE = \frac{\sum_{i=1}^{n} \lambda_i^2}{n}$$

The current research meets all three of these conditions, as follows:

(a) All Composite reliability (CR) values are well above the 0.7 as shown in Table 4.15 (calculations in Appendix D),

(b) all standardised factor loadings (λ) are above 0.5, with the lowest being 0.683, as shown in Table 4.13, and

(c) AVE values are above 0.5, with the lowest being 0.574 (see Table 4.15 and Appendix D for the calculations),

indicating that the indicators are reliable, valid, and sufficiently related to the construct, confirming the measurement model's convergent validity

Table 4.15: Cronbach's alpha, Composite reliability, and AVE tests on extracted Components

	F1 Governance Culture	F2 Governance Policy	F3 Social Desirability	F4 Governance Training	F5 Governance Monitoring	F6 Compliance Intention
Cronbach's alpha (α)	0.930	0.921	0.842	0.919	0.847	0.882
Composite Reliability (CR)	0.930	0.923	0.888	0.870	0.802	0.895
Average Variance Extracted (AVE)	0.656	0.706	0.615	0.627	0.574	0.810
Source: Calculations in SPSS and Excel						

4.10.2 Discriminant Validity

Discriminant validity is commonly defined as the extent to which a measure does not correlate highly with measures of other constructs that it is not supposed to be related to (Hair *et al.*, 2009). While the correlation between two constructs is often used to assess discriminant validity, there is no universally agreed-upon level of distinctiveness regarding the level of cross-construct correlation (Cheung *et al.*, 2023). The threshold for what constitutes a "sufficiently low" correlation may depend on the specific research context and the nature of the constructs being studied.

As such, the first condition for discriminant validity is establishing convergent validity. Stated alternatively, unless a construct is well-represented by its indicators, it is pointless to examine whether the construct can be distinguished from others (Cheung *et al.*, 2023). Having already confirmed convergent validity for the scale developed (see previous section and Table 4.14: Cronbach's alpha, and Composite reliability), discriminant validity was confirmed using two methods: the Fornell-Larcker criterion (Fornell & Larcker, 1981) and the Heterotrait-Monotrait (HTMT) ratio criterion proposed by Henseler et al. (2015).

- Discriminant Validity: Fornell and Larcker's criterion

The Fornell-Larcker criterion is a widely used approach to test for discriminant validity. It is based on the idea that the variance extracted (VE) from a construct should be greater than the shared variance with other constructs in the model.

The criterion is a way to assess discriminant validity. The Fornell-Larcker criterion has become a standard procedure for determining discriminant validity and is commonly reported in research articles and theses. Its significance lies in its ability to provide evidence of the unique contribution of a construct to a model. The criterion states that the average variance extracted (AVE) of items by a construct (factor) should be larger than the squared correlation of the latent construct with the discriminant construct (Fornell & Larcker, 1981).

If a construct's VE is greater than its shared variance with other constructs, it suggests that the construct measures a distinct and unique aspect of the phenomenon being studied. This provides support for the validity of the construct and the measurement model.

The Fornell-Larcker criterion also helps to avoid the problem of multicollinearity, which occurs when two or more constructs are highly correlated with each other, making it difficult to interpret their individual effects on the outcome variable. By ensuring that the constructs in the model have discriminant validity, the Fornell-Larcker criterion allows researchers to interpret the individual effects of each construct on the outcome variable.

In order to calculate this, the first step was to create a new variable in SPSS for each factor. Thus, six latent constructs were calculated one for each component of the scale (Governance Culture, Governance Policy, Social Desirability, Governance Training, Governance Monitoring, Compliance Intention), estimating the correlation coefficients for each construct. These are presented in Table 4.16, where the correlation coefficients (off-diagonal) for each construct are shown in the relevant rows and columns.

Table 4.16: Composite reliability (CR), the square root of the average variance extracted (AVE) (in bold) and correlations between constructs (off-diagonal).

Latent constructs	CR*	AVE*	Latent constructs					
			F1	F2	F3	F4	F5	F6
Governance Culture **(F1)**	0.930	0.656	**0.810**					
Governance Policy **(F2)**	0.923	0.706	0.325	**0.840**				
Social Desirability **(F3)**	0.888	0.615	0.147	0.122	**0.784**			
Governance Training **(F4)**	0.870	0.627	0.584	0.414	0.178	**0.792**		
Governance Monitoring **(F5)**	0.802	0.574	0.410	0.613	0.058	0.454	**0.758**	
Compliance Intention **(F6)**	0.895	0.810	0.104	0.238	0.006	0.099	0.233	**0.900**
* From Table 4.15								
Source: Calculations in SPSS and Excel								

Referring to Table 4.16, the CR for all constructs is above 0.70 (minimum 0.802), and the AVE values are within 0.574 and 0.810. Based on (Fornell & Larcker, 1981), discriminant validity was assessed by comparing the square root of each AVE in the diagonal (in bold) with the correlation coefficients (off-diagonal) for each construct in the corresponding columns. As shown here, the values in the columns below the square root of each AVE are smaller, confirming the discriminant validity of the model.

- Discriminant Validity: Heterotrait-monotrait (HTMT) criterion

Although the Fornell-Larcker criterion for assessing discriminant validity has been extensively used in research, recent studies have shown that it may not be effective for evaluating discriminant validity. Specifically, Henseler et al. (2015) demonstrated that the Fornell-Larcker criterion in certain cases can perform poorly, especially when there are minor differences in the indicator loadings for a given construct (e.g., all the indicator loadings are between 0.65 and 0.85). In empirical applications, this frequently results in the Fornell-Larcker criterion not accurately

detecting issues with discriminant validity (Radomir & Moisescu, 2020). Likewise, Franke and Sarstedt (2019, p. 23) concluded that the Fornell-Larcker criterion *"has limitations that may not justify its reputation for rigor and its widespread use in empirical research"*.

In order to overcome the limitations of the Fornell-Larcker criterion, Henseler et al. (2015) introduced the HTMT criterion. The HTMT (which stands for Heterotrait-Monotrait) criterion or ratio is calculated by taking the average correlation among items measuring different constructs (i.e., heterotrait correlations) and dividing it by the average correlation among items measuring the same construct (i.e., monotrait correlations). The concept is graphically presented in Figure 4.3. The arrows connecting indicators of different constructs represent the heterotrait– heteromethod correlations, which should be as small as possible. On the contrary, the monotrait– heteromethod correlations – represented by the dashed arrows – represent the correlations among indicators measuring the same concept, which should be as high as possible.

When HTMT values are high, there may be issues with discriminant validity. According to Henseler et al. (2015), for structural models with constructs that are very similar conceptually, such as cognitive satisfaction, affective satisfaction, and loyalty, a threshold value of 0.90 is proposed. If the HTMT value is above 0.90, it would suggest that discriminant validity is not present. However, when the constructs are more conceptually distinct, a lower threshold value is recommended, such as 0.85, a more conservative threshold (Henseler et al., 2015).

***Figure 4.3:* Discriminant validity assessment using the HTMT**
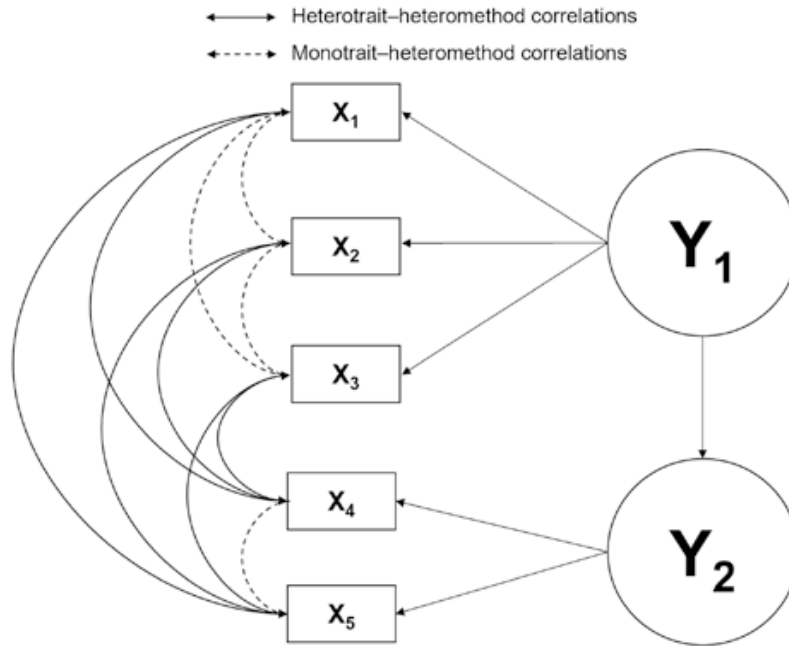
Source: Hair *et al.* (2022, p. 79)

Formally, the HTMT criterion is defined as:

$$HTMT = \frac{\sqrt{\dfrac{r\_het}{(1 - r\_het)}}}{\sqrt{r\_mon}}$$

where r_het is the average correlation between items measuring different constructs and r_mon is the average correlation between items measuring the same construct.

The HTMT ratio has several advantages over the Fornell-Larcker criterion in assessing discriminant validity. Firstly, the HTMT ratio takes in to account the heterogeneity of construct correlations, in contrast to the Fornell-Larcker criterion, which only takes in to account the magnitude of correlation. This is important because constructs with similar concepts may have higher correlations than those with distinct concepts. Secondly, the HTMT ratio allows for the inclusion of constructs with fewer than three indicators, which is not possible with the Fornell-Larcker criterion. Finally, the HTMT ratio has an explicit threshold value for assessing

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discriminant validity. In contrast, the Fornell-Larcker criterion does not have a definitive threshold and relies on researchers' judgment to determine whether discriminant validity is present or not. Overall, the HTMT ratio is a more comprehensive and robust method for assessing discriminant validity compared to the Fornell-Larcker criterion (Henseler et al., 2015).

As such, the HTMT ratio has also been calculated for the scale used in this survey in addition to the Fornell-Larcker criterion presented above to further support the discriminant validity of the scale developed. Table 4.17 displays the results, while Appendix E contains the calculations. The results additionally support the discriminant validity of the scale as all constructs are well below even the more conservative threshold value suggested by (Henseler et al., 2015) of 0.85. [The highest is 0.717 between the Governance Culture and Governance Training constructs.]

Table 4.17: Heterotrait-monotrait (HTMT) criterion results

	F1	F2	F3	F4	F5	F6
Governance Culture **(F1)**	-					
Governance Policy **(F2)**	0.370	-				
Social Desirability **(F3)**	0.176	0.118	-			
Governance Training **(F4)**	0.717	0.534	0.244	-		
Governance Monitoring **(F5)**	0.430	0.649	0.064	0.541	-	
Compliance Intention **(F6)**	0.105	0.268	0.013	0.135	0.255	-
Source: Calculations in SPSS and Excel						

4.11 Inclusion Of Validation Items

Obviously, the heart of the scale development of a questionnaire is the set of items from which the scale under development will emerge. However, the validity of the final scale was enhanced by adding additional validation items to the questionnaire. These validation questions aim to detect flaws or problems. Respondents might not be answering the items of primary interest

for the reasons the researcher assumes. There may be other motivations influencing their responses. Learning this early is advantageous (DeVellis, 2012).

Two types of validation questions have been employed in this research. Firstly, in the first section of the questionnaire, four manipulation questions were asked, along with three compliance questions (one of which was dropped during the scale development process) in each scenario. Secondly, in the second section of the questionnaire, five questions regarding social desirability bias were asked after the control questions.

4.11.1 Manipulation questions

Manipulation questions, also known as experimental questions, are a type of research question that involves manipulating one or more variables to observe the effect on an outcome. They are commonly used in experimental research to establish cause-and-effect relationships.

Manipulation questions are designed to check whether respondents pay attention and respond honestly to survey questions. To check for manipulation, researchers can include validation items on a scale (DeVellis, 2012). Validation items are questions that are not used in calculating the scale score but are used to assess whether the respondent is answering questions truthfully or is trying to manipulate the results.

Manipulation checks of the independent variables—reward, punishment, and certainty and of the order effect were performed by running one-way ANOVAs (Chen et al., 2012). The one-way analysis of variance (ANOVA) is comparable to a t-test in that it examines the mean scores of multiple groups on a continuous variable, but the one-way analysis of variance involves one independent variable (referred to as a factor), which has a number of different levels. These levels correspond to the different groups or conditions. The term "analysis of variance" is used because it involves comparing the variance, or variability in scores, among different groups that are

believed to be attributed to the independent variable against the variability within each group that is believed to be caused by chance. An F ratio is then calculated, which is obtained by dividing the variance between the groups by the variance within the groups. A high F ratio signifies that there is more significant variability among the groups due to the independent variable than within each group, which is referred to as the "error term". This analysis is called "one-way" because only one independent variable is considered when analysing its effect on the dependent variable (Pallant, 2016).

> **Manipulation checks of the independent variables**

Manipulation checks of the independent variables—reward, punishment, and certainty and of the order effect were performed by running one-way ANOVAs.

At first three one-way ANOVAs on the manipulation check questions of

    i.   punishment (MANI-P),

    ii.   reward (MANI-R), and

   iii.   certainty (mean of MANI-C1 and MANI-C2)

by the two levels of reward, punishment, and certainty, respectively were runed (see Appendix B for the details of manipulation statements MANI-P, MANI-R, MANIC1, and MANI-C2). The results of the 892 responses (223 replies with four trials each) are presented in Table 4.18. As shown in the table, the results provide strong evidence that the manipulations of the three independent variables were correctly interpreted by the participants as initially anticipated. The differences between the manipulations were all significant ($p < 0.05$).

Table 4.18: Manipulation Checks of Independent Variables

Study variables	High certainty (n = 448) Mean (SD)	Low certainty (n = 444) Mean (SD)	F-value (df)	Significant difference	
Perceived severity of punishment	3.18 (1.21)	2.99 (1.18)	5.47 (1, 890)	0.020	Yes
Perceived significance of reward	3.57 (1.17)	3.36 (1.18)	7.36 (1, 890)	0.007	Yes
Perceived enforcement certainty	3.64 (0.82)	3.40 (0.89)	18.24 (1, 890)	<0.001	Yes

Notes: SD = standard deviation; df = degrees of freedom.

Source: Calculations in SPSS

Secondly, a one-way ANOVA on the dependent variable of compliance intention and manipulation check questions of reward, punishment, and certainty by the order shown in Table 4.1. The results presented in Table 4.19 show that the order of presenting the four scenarios had a small effect on the major variables of this study ($p > 0.05$). More specifically, compliance intention and perceived severity of punishment showed no effect with p-values of 0.562 and 0.296, respectively. The perceived significance of reward shows that it is marginally affected (p=0.039). The post hoc analysis based on Bonferroni (as the sample sizes are unequal) shows that only Order 2 and 4 were slightly different, with p=0.072 (Scheffe p=0.098). Perceived enforcement certainty, however, showed a more significant result with p<0.001. The post hoc analysis based on Bonferroni and Scheffe shows that Orders: 1 and 3 (p= 0.014 / 0.026 respectively), 1 and 4 (p= 0.021 / 0.036), 2 and 3 (p= 0.027 / 0.042) and 2 and 4 (p= 0.042 / 0.064) were different from each other. Therefore, as most of the variables are unaffected by the order in which the scenarios are presented, it can be argued that the manipulations are successful and that the order effect is not an issue in this study.

Table 4.19: Manipulation Check—Scenario Presentation Order by Study Variables

Study variables	Order-1 (n = 148) Mean (SD)	Order-2 (n = 220) Mean (SD)	Order-3 (n = 304) Mean (SD)	Order-4 (n = 220) Mean (SD)	F-value (df)	Significant difference	
Compliance intention	3.18 (1.02)	3.04 (1.13)	3.06 (1.04)	3.13 (0.97)	0.68 (3.00)	not significant 0,562	None
Perceived severity of punishment	3.13 (1.21)	2.95 (1.27)	3.13 (1.18)	3.13 (1.15)	1.24 (3.00)	not significant 0.296	None
Perceived significance of reward	3.36 (1.21)	3.31 (1.19)	3.53 (1.17)	3.60 (1.14)	2.80 (3.00)	significant 0.039	2 – 4
Perceived enforcement certainty	3.35 (0.94)	3.40 (0.94)	3.61 (0.80)	3.62 (0.78)	5.59 -3	significant <.001	1-3, 1-4, 2-3, 2-4.

Notes: SD = standard deviation; df = degrees of freedom. *Bonferroni and Scheffe tests of paired contrasts.*

Source: Calculations in SPSS

4.11.2 Social Desirability Bias

A response bias is a systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content (i.e., what the items were designed to measure). For example, a respondent might choose the option that is most extreme or most socially desirable (Liu *et al.*, 2022). A response bias might be a response set, i.e., a temporary reaction to a situational demand, such as time pressure or expected public disclosure. Alternatively, a bias may be induced by context effects such as the item format or the nature of previous items in the questionnaire. The most frequently studied response bias is socially desirable responding or social desirability bias (SDB), the tendency to give answers that make the respondent look good (Paulhus, 1991). Such biases can become critical when measuring variables that are not directly observable or objectively measurable but are self-reported (Ried et al., 2022).

Including a social desirability scale allows the investigator to assess how strongly individual items are influenced by social desirability. Items that correlate substantially with the social desirability score obtained should be considered candidates for exclusion unless a sound theoretical reason indicates otherwise (DeVellis, 2012).

Social desirability bias was measured in the survey and used as a control variable with five items sourced from Hays et al. (1989). These evaluate the extent to which participants portray themselves appropriately and favourably and understate their negative behaviours.

Table 4.20: Social Desirability Bias Set, Partial Correlation

Control Variables			Compliance Intention 2	Compliance Intention 3	Total of SDRS
-none-[a]	Compliance_Intent 2	Correlation	1,000	0,689	0,024
		Significance (2-tailed)	.	<.001	0,723
		df	0	221	220
	Compliance_Intent 3	Correlation	0,689	1,000	-,012
		Significance (2-tailed)	<.001	.	0,863
		df	221	0	220
	TSDRS	Correlation	0,024	-,012	1,000
		Significance (2-tailed)	0,723	0,863	.
		df	220	220	0
Total SDRS	Compliance_Intent 2	Correlation	1,000	0,689	
		Significance (2-tailed)	.	<.001	
		df	0	219	
	Compliance_Intent 3	Correlation	0,689	1,000	
		Significance (2-tailed)	<.001	.	
		df	219	0	

a. Cells contain zero-order (Pearson) correlations.

Source: Calculations in SPSS

Partial correlation was used to explore the relationship between the two variables of compliance from the four scenarios (a mean variable was computed for each of the two questions in the four scenarios) while controlling for scores on the Hays et al. (1989) desirability scale (a total variable was computed from the five questions of the scale, and it is reminded that items 1 and 5 of the scale were reversely coded). As presented in Table 4.20, there is a strong partial correlation between the two compliance variables, controlling for social desirability, $r = 0.689$, n= 220, p <.001, with high levels of perceived control being associated with compliance intentions.

An inspection of the zero-order correlation ($r = 0.689$) suggested that controlling for socially desirable responses had no effect on the strength of the relationship between these two variables (Pallant, 2016), indicating that the observed relationship is not due merely to the influence of socially desirable responses.

4.12   Concluding section

Similar scales used in the field of information security policies and the reward or punishment strategies used by businesses to encourage employee adherence to such policies served as the inspiration for this research's scale (D'Arcy et al., 2009); Chen et al., 2012; Liang et al., 2013; Liu et al., 2022). Using the same concepts, the current scale was developed to examine whether compliance with a Code by NSFs will differ if the NSFs' funder gives a reward for compliance or a punishment for not compliance.

The methodology to develop and validate the questionnaire followed the recommendations of Boateng *et al.* (2018), who proposed nine Steps in three phases to achieve this. Eight of these Steps applied to this research. By following these three phases, the items to be used in the scale were generated, the scale was developed, and it was subsequently evaluated.

Phase 1: Item Development

i.   The research began with item development, which involved creating questionnaire items.

- A total of 44 items were generated based on relevant literature, divided into three sections (or parts).

- Section 1 included eight scenarios to measure compliance based on factors like punishment, reward, and certainty of control, with corresponding questions.

- Section 2 included eight control questions related to participant demographics and NSF characteristics.

- Section 3 aimed to measure compliance culture through 23 questions covering five topics.

ii.   Content validity was assessed through evaluations by ex-board members and experts, leading to questionnaire refinement.

Phase 2: Scale Development

iii.   The remaining 43 items underwent pre-testing in a pilot survey.

- Despite potential issues identified during pilot testing, no items were dropped at this stage.

iv.   The survey was administered to all board members of NSFs in Cyprus, with 223 responses received.

v.   Inter-item correlations and Cronbach's Alpha were used to identify and drop two additional items.

vi.   An exploratory factor analysis (EFA) with PCA and varimax rotation was performed, resulting in six components and the removal of two more items.

Phase 3: Scale Evaluation

vii. Dimensionality tests were omitted as they were not relevant to the study.

viii. The scale's reliability was assessed using Cronbach's alpha and Composite Reliability, demonstrating good reliability.

ix. Construct validity was tested through convergent and discriminant validity, with positive results.

In addition:

- Validation items were included in the survey to detect issues related to respondent attention, honesty, and social desirability bias.

- Manipulation checks and analyses confirmed that the independent variables were correctly interpreted.

- Social desirability bias was controlled using partial correlation, revealing a strong relationship between compliance variables, indicating that it was not solely influenced by socially desirable responses.

Overall, the scale development and validation process involved rigorous steps to ensure the reliability and validity of the compliance measurement tool, including thorough item development, content validity assessment, pilot testing, factor analysis, and checks for potential biases.

Chapter 5

Data Analysis and Findings

5.1 Introduction and purpose

As stated above, this research examines whether national sport federations (NSFs) are more likely to comply with the principles of the code if a reward for compliance is provided and / or whether a punishment for noncompliance is enforced. Therefore, all the NSFs of Cyprus were invited to participate in the study by asking their board of members to reply to the anonymous online questionnaire.

This chapter will first examine the extent to which the respondents' profile, as presented through the demographic (control) questions of Section B of the questionnaire, affects their intention to comply with a Code. This is done by running a one-way ANOVA with a between-subjects factor. An exception to this is the gender factor, where repeated-measure ANOVA with a between-subjects factor was conducted to determine whether any differences exist between genders across the four compliance scenarios. Levene's test is also used to test for variances homogeneity. Post-hoc comparisons were also used.

Secondly, the hypotheses presented in in sections 2.3.5 to 2.3.9 are examined. These were tested using a repeated-measure ANOVA with a between-subjects factor. Box's test was used to consider the equality variance-covariance matrices of difference scores between the two control groups and multivariate test are also performed.

5.2 Respondents profile

In Section B of the questionnaire, respondents were asked to provide demographic data for themselves as well as information about their NSF. In total, eight questions were asked, four for each. Specifically, the questions that refer to the:

- NSFs are:

  a) Size of federation based on their annual budget, b) Number of employed staff, c) How many years ago was your federation established and d) Type of sport (individual or team)

- Responded are:

  a) Gender, b) Age group, c) Education level, and d) Number of years as a board member.

To test if there is any difference in the intention to comply with the Code a one-way ANOVA with a between-subjects factor was performed where the mean of the four compliance scenarios of Reward and/or Punishment[51] were contrasted with each of the eight above factors.

A one-way analysis of variance (ANOVA) is a statistical test akin to a t-test. However, we specifically use it when we need to evaluate and compare the average scores of two or more groups on a continuous variable. The term "one-way" refers to the fact that you are examining the influence of a single independent variable on the dependent variable (Pallant, 2016).

5.2.1   Respondents' federation profile

- <u>Size of the NSF (based on Budget)</u>

The first question was about the size of the National Sport Federation (NSF). As seen in Table 5.1, more than half of the respondents (126 of the 233 or 56.4%) come from the biggest NSFs, with an annual budget of more than €100.000. For this study, this has both a positive and a negative effect. On the positive side, most public funding goes to the bigger NSFs. Based on data from the Cyprus Sport Organisation, 85% of the total funding to the NSFs is allocated to these

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[51] A repeated-measures ANOVA with a between-subjects factor was conducted to examine the effects of the four compliance scenarios involving Reward and/or Punishment compared to the eight control variables. The analysis produced consistent results, validating the appropriateness of utilizing the mean as a measure of central tendency.

NSFs. Improving their governance is vital as any misgovernance in these will have a more significant impact than in smaller NSFs. From the opposing point of view, this might indicate that smaller NSFs are not well represented in the data collected, and maybe it is these NSFs that need more help to improve their governance structures.

Table 5.1: Size of NSF

Annual Budget	n	%	Cum. %
€200,000 and up	85	38.0	38.0
€100.001 - €200,000	41	18.4	56.4
€50.001 - €100.000	30	13.5	69.9
€20.001 - €50.000	37	16.6	86.5
€0 - €20.000	30	13.5	100.0
Total	**223**	**100**	
Source: Calculations in SPSS			

Given the overrepresentation of larger NSFs in the study, a test for any significant difference in compliance intention between the size of NSFs was performed.

A one-way between-subjects analysis of variance was conducted to explore the impact of an NSF's size on the intention to comply, as measured by the mean of the four compliance scenarios. Participants were divided into the five NSFs' size groups, as shown in Table 5.1.

Levene's test for homogeneity of variances, which tests whether the variance in scores is the same for each of the five groups (Field, 2018), was not violated as it reported above the 0.05 threshold (**Table 5.2**).

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Table 5.2: Size of NSF - Levene's test for homogeneity of variances

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
ComplianceMean	Based on Mean	,488	4	218	,745
	Based on Median	,581	4	218	,676
	Based on Median and with adjusted df	,581	4	205,991	,676
	Based on trimmed mean	,502	4	218	,734

Source: Calculations in SPSS

The ANOVA test, as presented in **Table 5.3**, showed no statistically significant difference at the p < .05 level for the interaction of *Intention (to comply)* x *Size of the NSF with* scores for the five size groups: F(4, 218) = 0.659, p =0.621.

Table 5.3: Size of NSF – One Way ANOVA

ANOVA

ComplianceMean

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,751	4	,438	,659	,621
Within Groups	144,948	218	,665		
Total	146,699	222			

Source: Calculations in SPSS

The non-significant result is further supported by the small effect size (eta squared[52] = 0.012), by the mean scores presented in Table 5.4 and the post-hoc comparisons using the Tukey HSD.

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[52] Eta squared (η^2): an effect size measure that is the ratio of the model sum of squares to the total sum of squares (Field et al., 2012).

Table 5.4: Size of NSF – Mean Scores

	N	Mean	Std. Deviation
€0 - €20.000	30	2,9875	,92752
€20.001 - €50.000	37	3,2770	,70658
€50.001 - €100.000	30	3,0458	,70747
€100.001 - €200,000	41	3,0945	,89127
€200,000 and up	85	3,0588	,81458
Total	223	3,0902	,81290

Source: Calculations in SPSS

Figure 5.1 also visually presents this, showing a close relationship between the means across the five groups, with only the NSFs in the second-smallest group (those in the range of €20.001–€50.000) having the higher means, indicating a higher intention to comply.

Figure 5.1: Compliance Based on Size of Federation
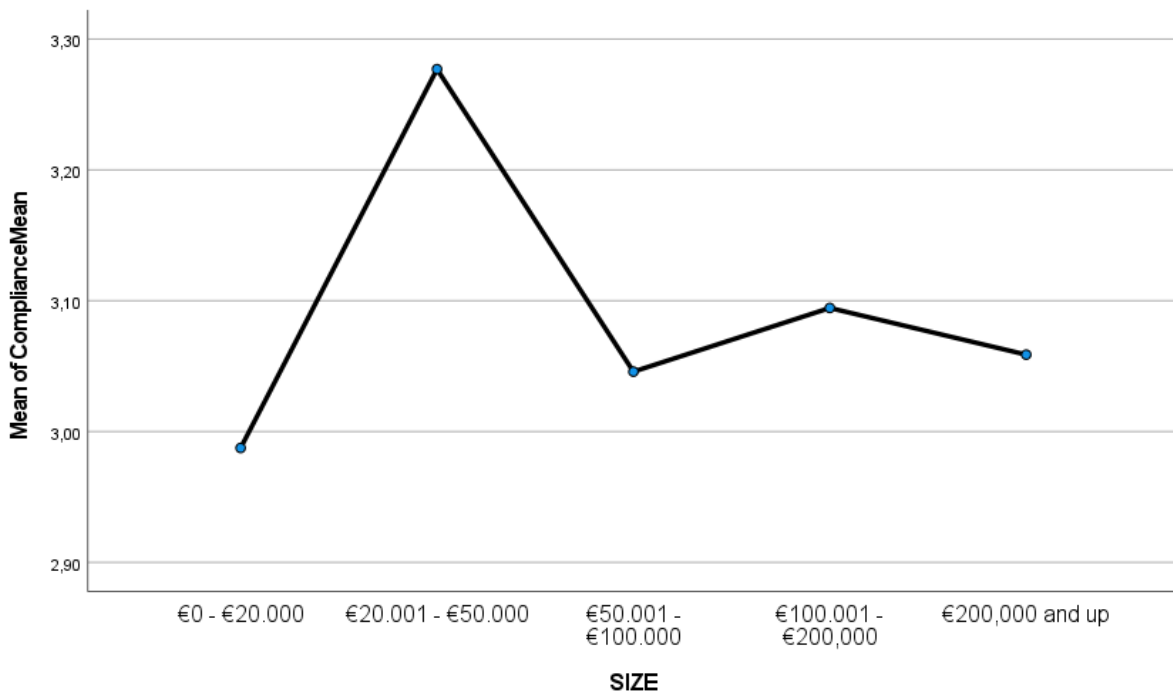
Source: Calculations in SPSS

- Number of employed staff

The second question was about the number of NSF employees. This question was included in the questionnaire because the number of employees in an NSF could potentially affect its ability

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to adopt and implement good governance principles.   Based on the responses, almost 40% of the NSFs that responded had no employees or just one (see Table 5.5).

Table 5.5: Number of employees			
Number of employees	**n**	**%**	**Cum. %**
5 +	43	19.3	19.3
2 - 4	94	42.2	61.4
1	43	19.3	80.7
0	43	19.3	100.0
Total	**223**	**100**	
Source: Calculations in SPSS			

A one-way ANOVA with a between-subjects factor was performed, in which the mean of the four compliance scenarios was contrasted with the number of employees of the NSF to see whether it affected compliance. Participants were divided into the four NSFs' size groups, as shown in Table 5.5. Levene's test for homogeneity of variances was violated as it reported a value of 0.04, as shown in Table 5.6.

Table 5.6: Number of employees - Levene's test for homogeneity of variances

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
ComplianceMean	Based on Mean	4,636	3	219	,004
	Based on Median	4,491	3	219	,004
	Based on Median and with adjusted df	4,491	3	191,051	,005
	Based on trimmed mean	4,644	3	219	,004

Source: Calculations in SPSS

Since it is violated, we must not consider the ANOVA results but consult the Robust Tests of Equality of Means produced by SPSS (Pallant, 2016). Two tests are shown there: Welch and Brown-Forsythe. With unequal variances and unequal sample sizes across groups, it is appropriate to report Welch's test. On the other hand, if the variances are unequal, but the sample sizes are equal or approximately equal, it is more appropriate to report Brown-Forsythe's (Field et al., 2012).

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Table 5.7: Number of employees - Robust Tests of Equality of Means

Robust Tests of Equality of Means

ComplianceMean

	Statistic[a]	df1	df2	Sig.
Welch	1,142	3	105,425	,336
Brown-Forsythe	1,152	3	171,591	,330

a. Asymptotically F distributed.

Source: Calculations in SPSS

In this test, since we are dealing with unequal sample sizes (see Table 5.5), the test of Welch is consulted. The results are is presented in Table 5.7, and indicate that there is no statistically significant difference at the p > .05 level for the interaction of *Intention (to comply) x Number of employees* with scores for the four groups: F (3,219) = 1.031, p=0.336. The non-significant result is further supported by the small effect size (eta squared = 0.014), by the mean scores presented in Table 5.8 as well as the post-hoc comparisons using the Tukey HSD.

Table 5.8: Number of employees – Mean Scores

	N	Mean	Std. Deviation
0	43	3,0959	,92816
1	43	3,2209	,65000
2 - 4	94	2,9880	,91252
+5	43	3,1773	,56249
Total	223	3,0902	,81290

Source: Calculations in SPSS

This is further demonstrated through the visual representation in Figure 5.2, where the means across the four groups show a lack of a clear ascending or descending pattern in compliance based on the number of employees. The relationship between compliance and the number of employees

does not exhibit a consistent trend of increase or decrease.

Figure 5.2: Compliance Based on Number of employees
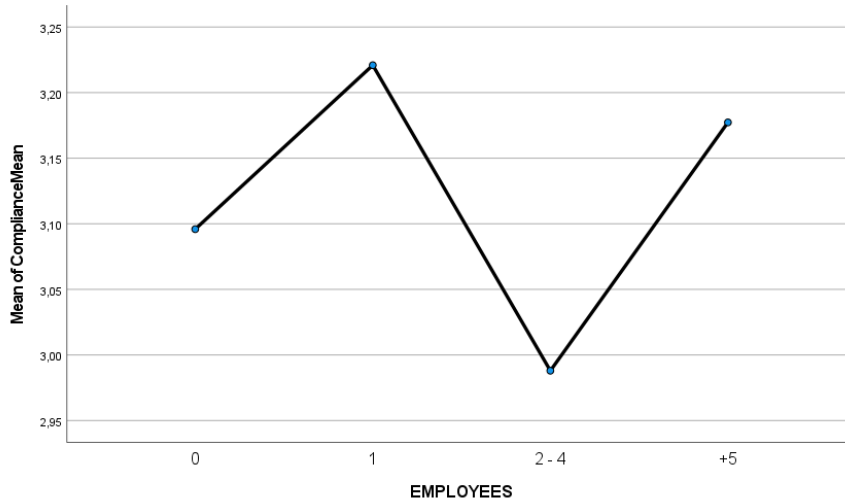
Source: Calculations in SPSS

- NSF's History (year of establishment)

The third question was about how many years ago the federation was established. The majority

of the NSFs were established more than 30 years ago (65%), and almost all (95%) at least 16 years

ago, as shown in Table 5.9.

Table 5.9: History of Federation

Years of Establishment	n	%	Cum. %
More than 30 years	144	64.6	64.6
16 – 30 years	68	30.5	95.1
6 – 15 years	11	4.9	100.0
0 – 5 years	0	0.0	100.0
Total	**223**	**100**	

Source: Calculations in SPSS

A one-way ANOVA with a between-subjects factor was performed, in which the mean of

the four compliance scenarios was contrasted with the history of the NSFs to see whether it had

any effect on compliance. Participants were divided into the four NSFs' size groups, as shown in

Table 5.9. With Levene's test for homogeneity of variances violated (0.015) and unequal sample sizes based on the Welch test, we have a non-statistically significant difference at the p > .05 level for the interaction of *Intention (to comply) x Years of Establishment (History)* with scores for the four groups: F (2,220) = 1.603, p=0.132.

The non-significant result is further supported by the small effect size ($\eta^2 = 0.014$), by the mean scores presented in **Table 5.10** as well as the post-hoc comparisons using the Tukey HSD.

Table 5.10: NSFs history – Mean Scores

	N	Mean	Std. Deviation
6 – 15 years	11	3,3523	,55570
16 – 30 years	68	3,1912	,69327
More than 30 years	144	3,0226	,87427
Total	223	3,0902	,81290

Source: Calculations in SPSS

However, an interesting observation can be made from the graphical representation in Figure 5.3. While the overall results may not be statistically significant, a clear trend emerges, indicating a decline in compliance intention as the years of establishment increase.

Figure 5.3: Compliance Based on NSFs' history
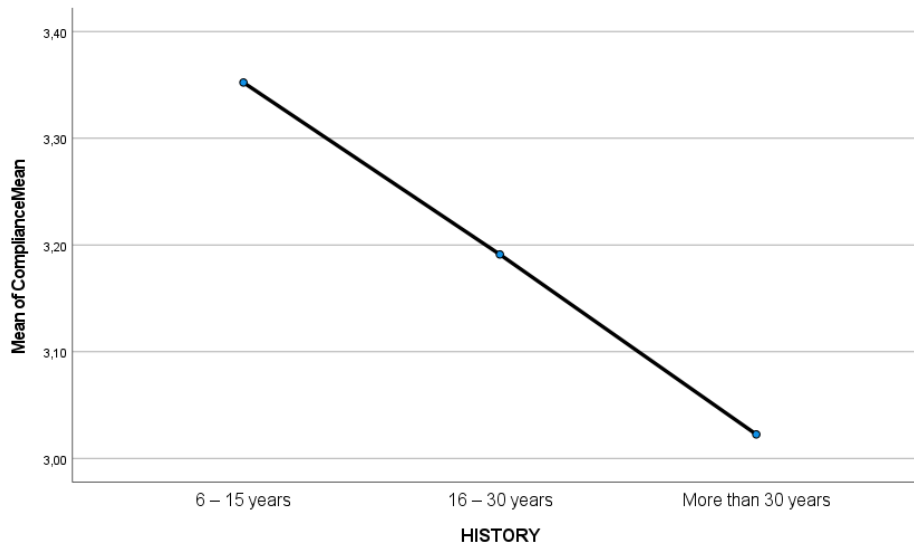
Source: Calculations in SPSS

- Type of sport (individual or team)

The fourth question was whether the sport of the respondent's NSF was an individual or team sport. NSFs whose sports are essentially individual ones (i.e., not team) prevail with 72% (37% and 35%), as shown in Table 5.11.

Table 5.11: Type of Sport		
Type of Sport	**n**	**%**
Individual sport	83	37.2%
Team Sport	51	22.9%
Both but primarily individual	78	35.0%
Both but primarily team	11	4.9%
Total	**223**	**100**
Source: Calculations in SPSS		

A one-way ANOVA with a between-subjects factor was performed where the mean of the four compliance scenarios was contrasted with the type of sport of the NSFs to see whether it affected compliance. Participants were divided into four types of sports groups, as shown in Table 5.9. With Levene's test for homogeneity of variances not violated (0.469), the ANOVA test showed no statistically significant difference at the $p < .05$ level for the interaction of *Intention (to comply) x Type of Sport of the NSF* with scores for the four size groups: $F_{(3,219)} = 0.913$, $p = 0.435$.

Table 5.12: NSFs Type of Sport – Mean Scores			
	N	Mean	Std. Deviation
Individual sport	83	3,1265	,86239
Team Sport	51	3,0564	,74259
Both but primarily single	78	3,1266	,80166
Both but primarily Team	11	2,7159	,82744
Total	223	3,0902	,81290
Source: Calculations in SPSS			

The non-significant result is further supported by the small effect size ($\eta^2 = 0.012$), by the mean scores presented in Table 5.12 and the post-hoc comparisons using the Tukey HSD.

This is also visually presented in Figure 5.4, with the means across the four groups closely related.

Figure 5.4: Compliance Based on NSFs' type of Sport
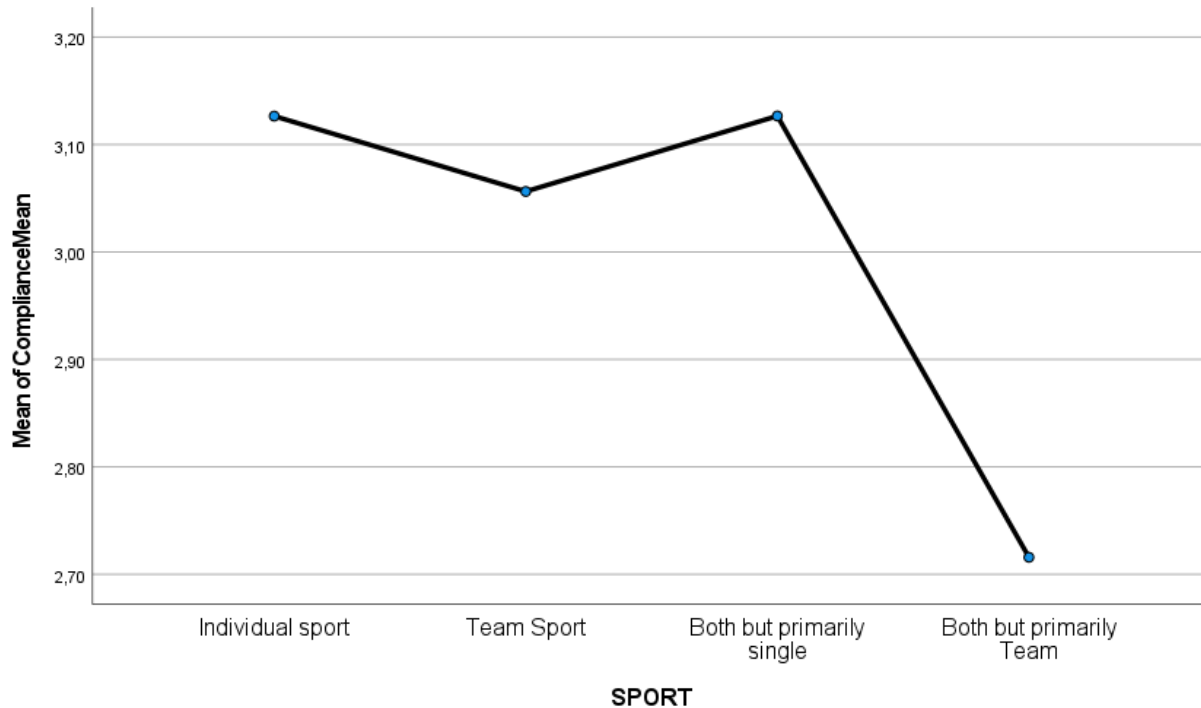
Source: Calculations in SPSS

5.2.2 Respondents' demographic profile

- Gender

The first question was about the respondents' gender. The results confirmed the significant gender gap that exists in the management of NSFs in Cyprus, with more than 80% (180 out of the 223) of the respondents being male.

Because the number of male participants (Nmale = 180) was more than five times the number of female participants (Nfemale = 36) (5 board members did not reveal their gender, and 2 chose non-binary/third gender), a test for any significant difference in compliance intention between genders was performed.

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Figure 5.5: Gender of participants

Respondent's Gender

Gender	Respondents
Prefer not to say	5
Non-binary / third gender	2
Female	36
Male	180
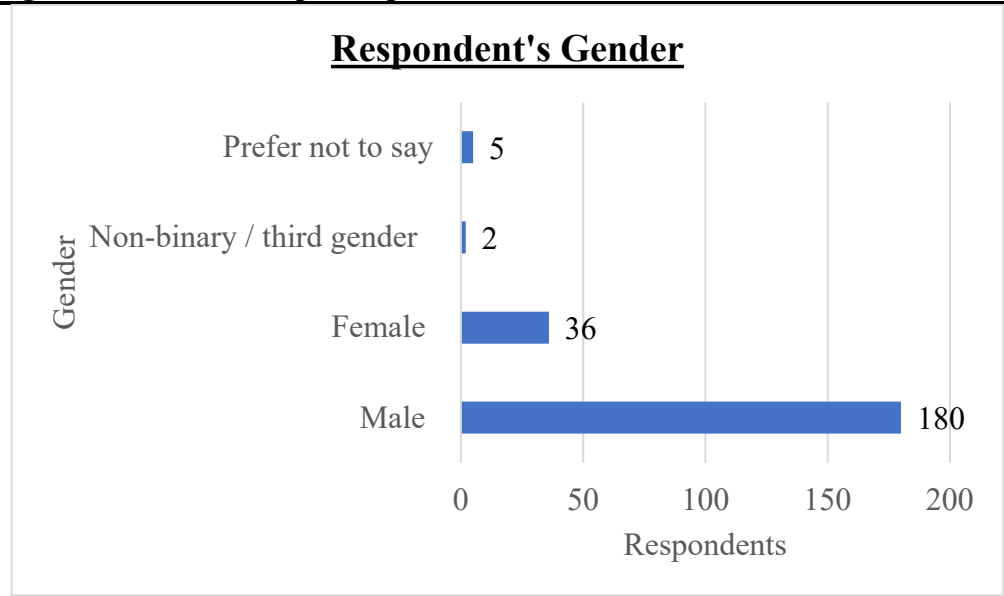
Source: Calculations in SPSS

A repeated-measure [53] ANOVA with a between-subjects factor was performed where the four compliance scenarios of Reward and/or Punishment were contrasted with the gender to see whether it had any effect on compliance. Participants were categorised into three gender groups: male, female, and a combined category that included participants who preferred not to disclose their gender or identified as non-binary/third gender. The distribution of participants across these gender groups is illustrated in Figure 5.5.

With Levene's test for homogeneity of variances not violated on all four compliance scenarios (1.131, 1.848, 1.794 and 0.121), the between-subjects test showed no statistically significant difference at the $p < .05$ level for the interaction of *Intention (to comply) x Gender* with scores for the three gender groups: $F_{(2, 220)} = 0.342$, $p = 0.710$.

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[53] A one-way ANOVA was not used like above in order to check whether any of the four compliance scenarios differ between the genders.

Table 5.13: Gender – Mean Scores

Descriptive Statistics

	GENDER	Mean	Std. Deviation	N
NRNP	Male	2,7694	1,01849	180
	Female	2,7778	1,03126	36
	ND/Third	3,2857	,75593	7
	Total	2,7870	1,01372	223
NRSP	Male	3,1250	1,02193	180
	Female	2,9722	1,14608	36
	ND/Third	3,3571	,89974	7
	Total	3,1076	1,03740	223
HRNP	Male	3,1556	1,03741	180
	Female	3,1528	,95483	36
	ND/Third	3,4286	1,01770	7
	Total	3,1637	1,02068	223
HRSP	Male	3,2889	1,04768	180
	Female	3,3750	,96640	36
	ND/Third	3,2857	1,11270	7
	Total	3,3027	1,03284	223

Source: Calculations in SPSS

The non-significant result is further supported by the small effect size (partial $\eta^2 = 0.003$), by the mean scores across the four compliance scenarios presented in Table 5.13, as well as the post-hoc comparisons using the Tukey HSD.

This is also visually presented in Figure 5.6, with the means across the two main groups closely aligned. The findings of this study challenge the commonly held belief that females are more inclined to comply with instructions. Furthermore, these results diverge from previous research conducted in the field of information security policy (ISP) compliance, which suggests a relationship between gender and compliance intention in the presence of punishment and/or rewards. According to Liu *et al.* (2022), punishment substantially impacts female employees more than male colleagues. Similar findings were reported by Ameen et al. (2020) (cited in Liu *et al.*,

2022), with punishment exerting a stronger impact on the female than the male in the ISP compliance context. In addition, Bansal et al. (2020), as cited in Liu et al. (2022), stated that females are more sensitive to the reward, but the punishment exerts a more significant effect on the male in the context. None of these findings is aligned with the results of this study, which shows nearly identical levels of compliance intention in the scenarios of "No Reward and No Punishment" (NRNP), and the "High Reward No Punishment" (HRNP). In contrast, male respondents reported a higher intention to comply in the "No Reward Severe Punishment" (NRSP) scenario. Conversely, the situation was different in the "High Reward and Severe Punishment" (HRSP) scenario.

Figure 5.6: Compliance Based on Gender across the four compliance scenarios
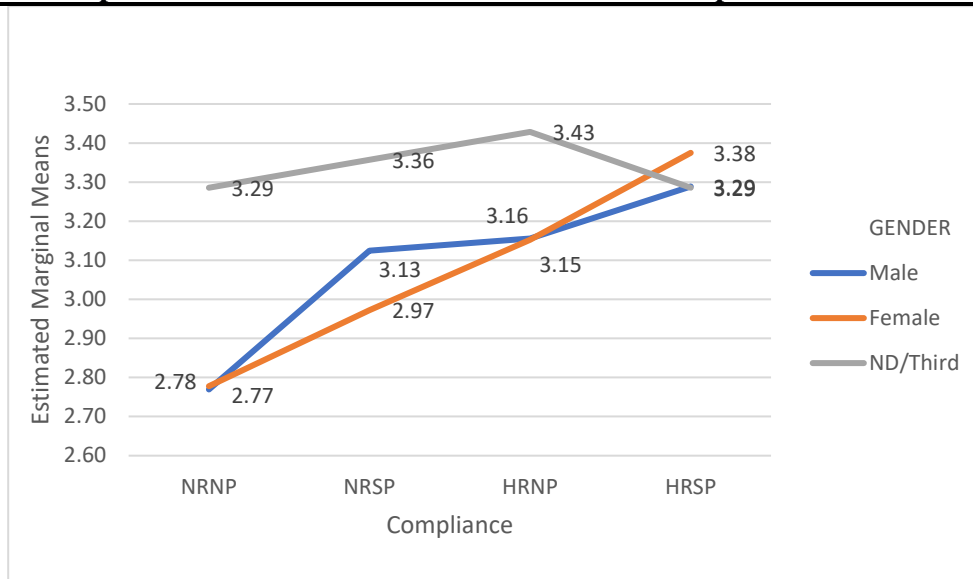
Source: Calculations in SPSS

- Age group

The second question was about the respondents' age. Ten age groups were used in the scale, presented in Figure 5.7, with the median age being 44 years old but with 15.2% of the respondents being above the pensionable age of 65.

**Figure 5.7: Age groups of participants**
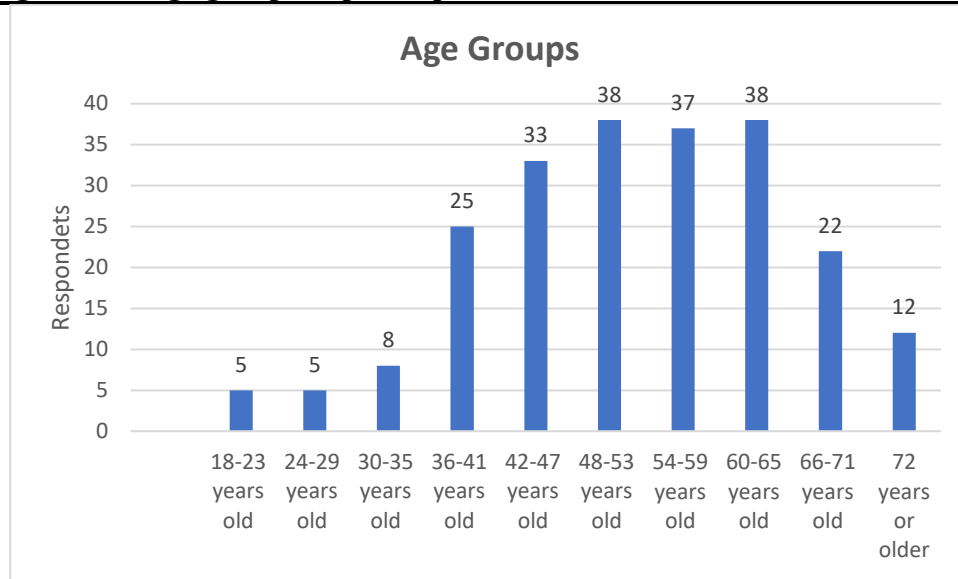
Source: Calculations in SPSS

A one-way ANOVA with a between-subjects factor was performed where the mean of the four compliance scenarios was contrasted with the age groups of participants to see whether it had any effect on compliance. With Levene's test for homogeneity of variances not violated (0.628), the ANOVA test showed no statistically significant difference at the $p < .05$ level for the interaction of *Intention (to comply) x Age groups* with scores for the ten groups: $F(9,213) = 1.025$, $p=0.421$.

The non-significant result is further supported by the small effect size ($\eta^2 = 0.042$), by the mean scores presented in Table 5.14, as well as the post-hoc comparisons using the Tukey HSD.

Table 5.14: Age groups – Mean Scores

	N	Mean	Std. Deviation
18-23 years old	5	2,9750	1,20026
24-29 years old	5	2,7500	,45928
30-35 years old	8	3,0313	,81216
36-41 years old	25	3,1400	,68114
42-47 years old	33	3,2197	,84319
48-53 years old	38	3,2533	,88220
54-59 years old	37	3,0811	,88202
60-65 years old	38	3,0888	,71536
66-71 years old	22	3,0000	,78300
72 years or older	12	2,5417	,79117
Total	223	3,0902	,81290

Source: Calculations in SPSS

The findings are supported by the visual representation in Figure 5.8, which shows that the means across the ten groups do not show a consistent trend of increasing or decreasing in the intention to comply with age.

Figure 5.8: Compliance Based on Age groups
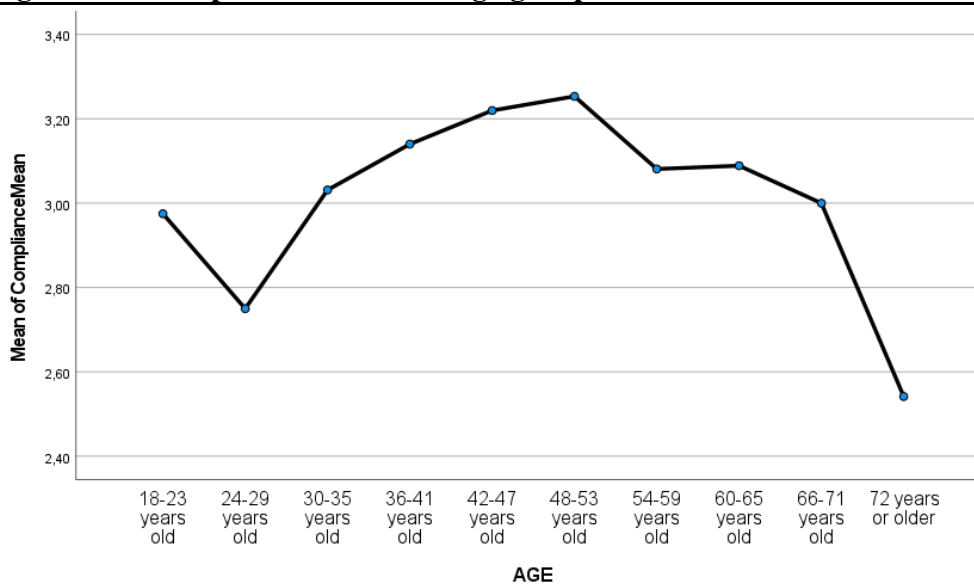
Source: Calculations in SPSS

- Education level

The third question was about the respondents' education level. Six groups were used in the scale to classify the education level of the participants (see Figure 5.9), with 75% of the respondents being university graduates.

Figure 5.9: Education level of participants
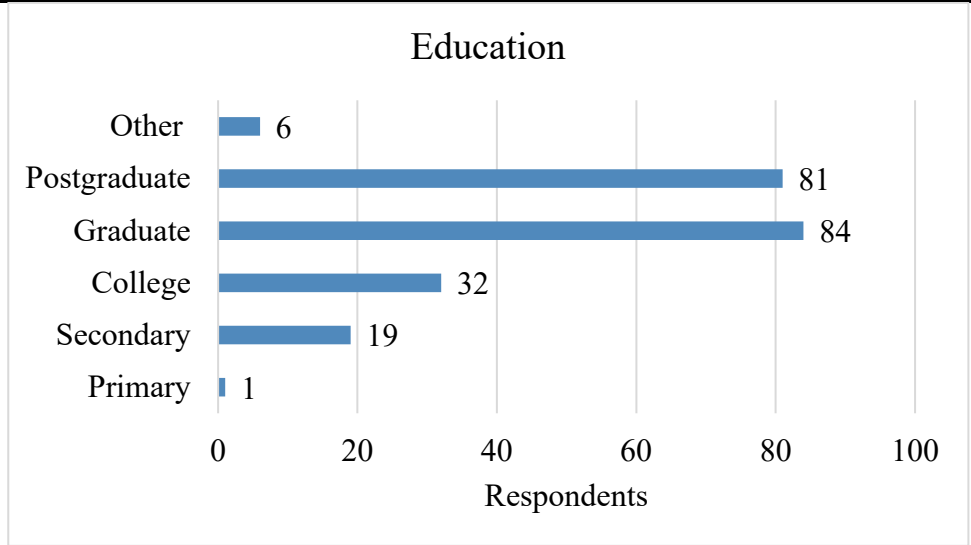
Source: Calculations in SPSS

As the number of university graduates represents 75% of the respondents, a test for any significant difference in compliance intention between the education levels of the participants was performed.

Table 5.15: Education Level – Mean Scores

	N	Mean	Std. Deviation
Primary	1	3,0000	.
Secondary	19	3,1842	,78103
College	32	3,2539	,83430
Graduate	84	3,0744	,81499
Postgraduate	81	3,0231	,84041
Other	6	3,0625	,46603
Total	223	3,0902	,81290

Source: Calculations in SPSS

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A one-way ANOVA with a between-subjects factor was performed where the mean of the four compliance scenarios was contrasted with the education level of participants to see whether it had any effect on compliance. With Levene's test for homogeneity of variances not violated (0.701), the ANOVA test showed no statistically significant difference at the $p < .05$ level for the interaction of *Intention (to comply) x Education Level* with scores for the six groups: $F (5,217) = 0.425$, p=0.831.

The non-significant result is further supported by the small effect size ($\eta^2 = 0.010$), by the mean scores presented in Table 5.15 and the post-hoc comparisons using the Tukey HSD.

The findings are supported by the visual representation in Figure 5.10, where the means across the six groups do not show a consistent trend of increase or decrease in the intention to comply with age (although note that the primary group had only one response).

Figure 5.10: Compliance Based on Age groups
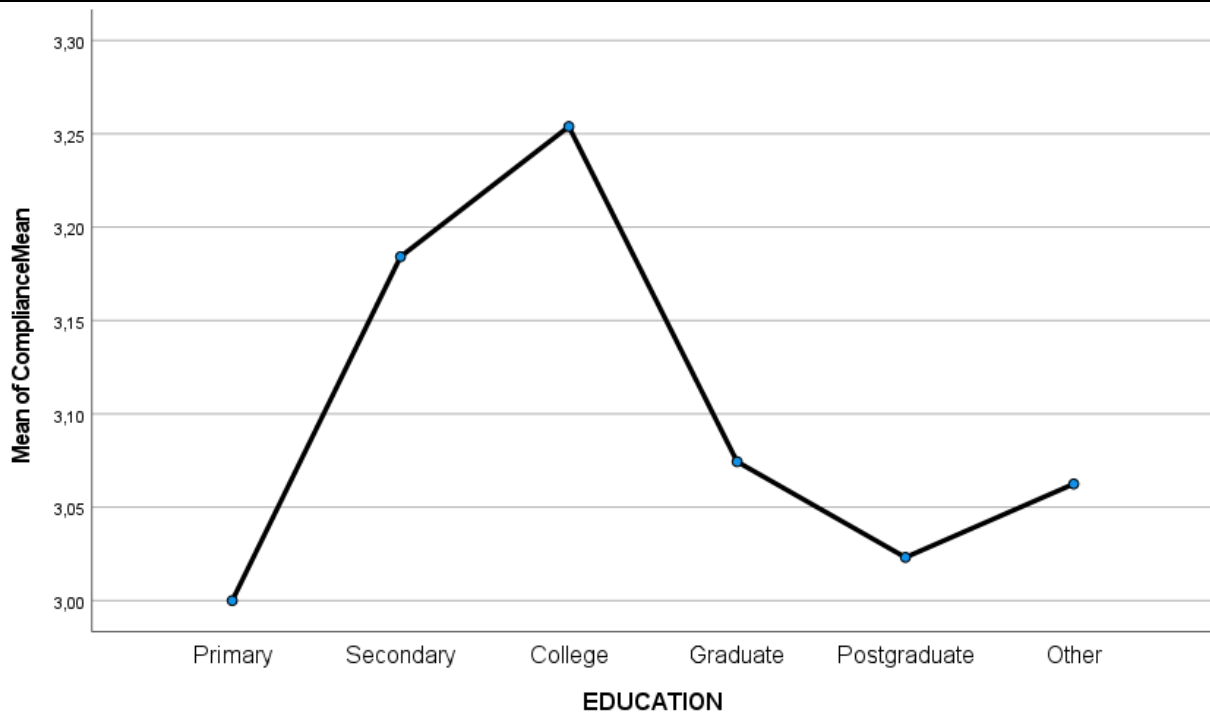
Source: Calculations in SPSS

- Number of years as board members

The fourth question asked board members to state how many years they have been board members in their federation. As shown in Figure 5.11, six groups were used, with the median being 6.4 years. It is noted that 27% of the respondents have been board members for more than ten years, the maximum term period set by the Cyprus Sport Organisation's Code, and another 15% from 7 - 9 years. As such, some resistance to adopting a code of good governance that would include such a provision was expected.

Figure 5.11: Years as Board Member of the Federation
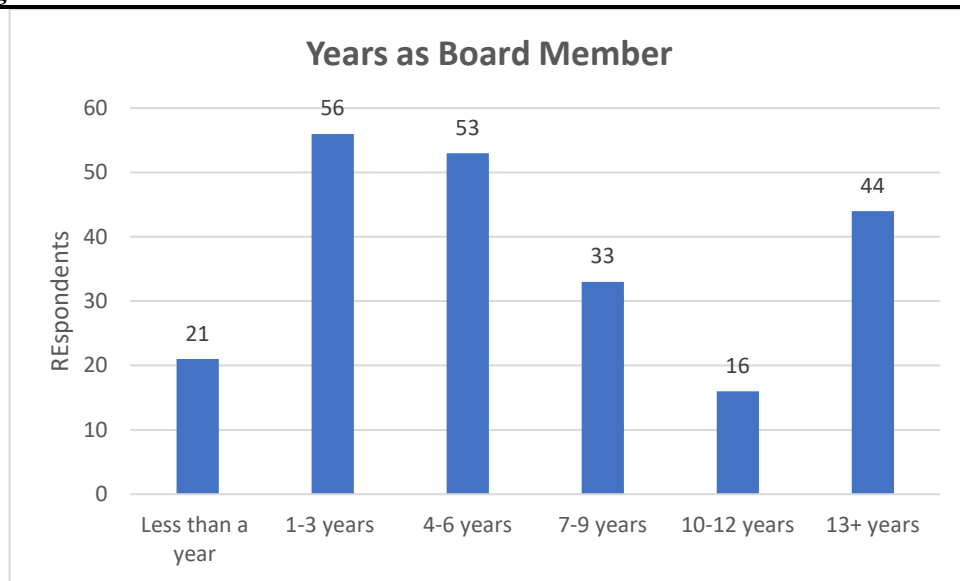
Source: Calculations in SPSS

A one-way ANOVA with a between-subjects factor was conducted to examine the relationship between the mean scores of the four compliance scenarios and the number of years on the board of the participants. Levene's test confirmed the assumption of variances homogeneity ($p = 2.570$). The ANOVA test revealed a marginally statistically significant difference at the $p < .05$ level for the interaction of *Intention (to comply) x Years as Board Members*, with scores for the six groups: $F_{(5, 217)} = 2.285$, $p = 0.047$.

Table 5.16: Years as Board Members – Mean Scores

	N	Mean	Std. Deviation
Less than a year	21	3,2381	,63480
1-3 years	56	3,2946	,83579
4-6 years	53	3,1698	,84249
7-9 years	33	2,9129	,56638
10-12 years	16	3,0078	,73239
13+ years	44	2,8267	,93589
Total	223	3,0902	,81290

Source: Calculations in SPSS

The effect size was found to be small to medium ($\eta^2 = 0.050$), consistent with the marginally significant result of the ANOVA test. Table 5.16 presents the mean scores, further supporting the result's marginality. Post-hoc comparisons using the Tukey HSD test showed a marginal difference between the groups of 1-3 years and 13+ years at $p = 0.047$. However, no other multiple comparisons revealed any significant differences.

Figure 5.12: Compliance Based on number of years as board member
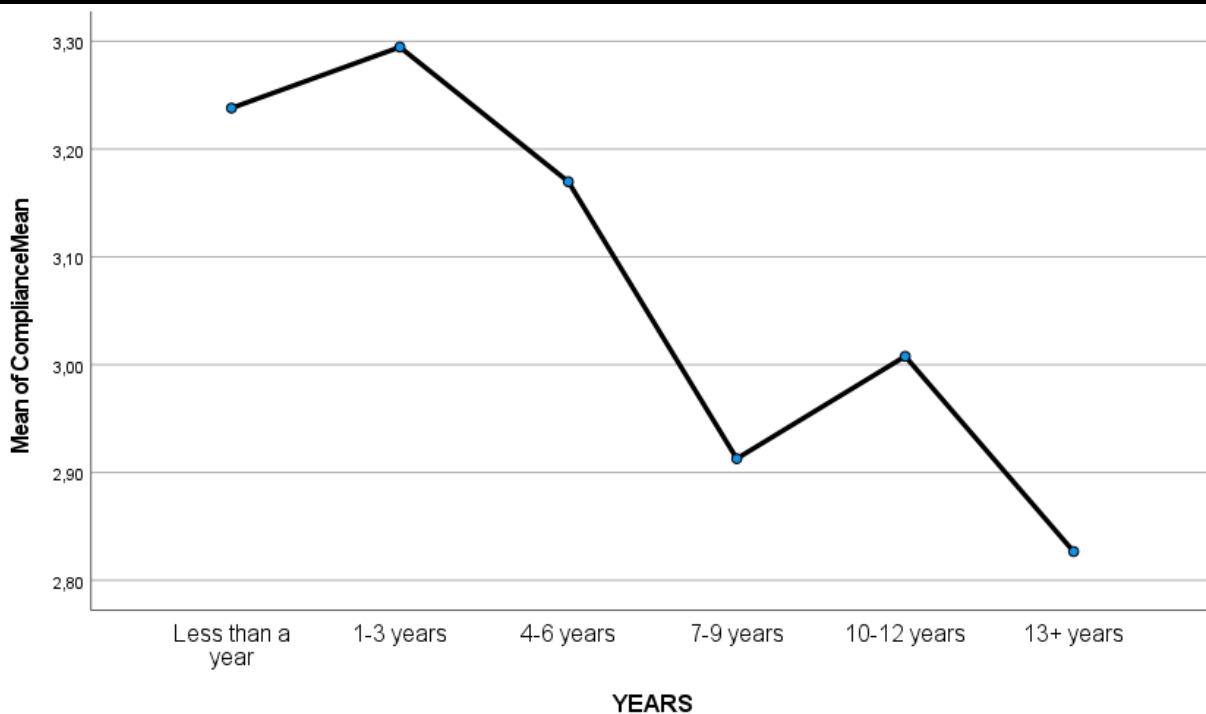
Source: Calculations in SPSS

Despite the marginally significant results of the ANOVA, Figure 5.12 clearly demonstrates a reduction in the intention to comply as board members have more years of experience on the board. The only exceptions to this trend are the groups of "Less than a year" and "10-12 years". However, it is essential to approach the results of these two groups with caution due to their relatively smaller sample sizes (21 and 16) compared to the other four groups (56,53,33,44).

In summary, based on the above profiles of the respondents, it can be assumed that the individuals who participated in this study were likely to be mature, well-educated, and experienced, possessing substantial knowledge of the subject matter.

5.3 Hypothesis Testing

As a reminder, the research aim of this study is to examine whether NSFs are more likely to comply with the principles of a good governance code (Code) if a reward for compliance is provided and/or punishment for noncompliance is enforced. To this extent an experiment was designed with four scenarios[54] as presented in Section 4.1.2. The effect of a "carrot or stick" approach has been further examined in conjunction with the certainty that the funder(s) of sport organisations that have issued the Code(s) will check whether or not the NSFs have complied with the principles of the Code.

To formulate the hypothesis for testing as presented in sections 2.3.5 to 2.3.9, conceptually, the study has utilised the multi-theoretical perspective of resource dependency theory (Emerson, 1962; Froelich, 1999; Pfeffer & Salancik, 1978), and institutional theory, drawing on compliance theory (DiMaggio & Powell, 1983; Edwards & Mason, 2009; Etzioni, 1964; Etzioni, 1975;

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[54] Scenario 1: No Reward and No Punishment; Scenario 2: No Reward and Severe punishment; Scenario 3: High reward and No punishment; Scenario 4: High reward and No punishment.

Matheson, 1987) and general deterrence theory (Becker, 1968; Friesen, 2012; Gerhart & Milkovich, 1990).

Based on these theories, the following six hypotheses have been developed against the null hypothesis that the intention to comply with the principles of the Code is not affected by punishment, reward, or certainty of control. The six hypotheses are graphically presented in Figure 2.4, replicated below, and are the following:

__Hypothesis 1__: The extent to which resources (funding) are deprived from NSFs because of not compliance with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.

__Hypothesis 2:__ The level of reward for complying with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.

__Hypothesis 3:__ Certainty of control will positively influence the intention to comply with the principles of the good governance code (Code).

__Hypothesis 4:__ The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of punishment contexts in high certainty of control environments is smaller than in low certainty environments.

__Hypothesis 5:__ The impact of reward on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of reward contexts in high certainty of control environments is smaller than in low certainty environments.

__Hypothesis 6:__ The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by reward: the difference in impact on intention to comply between mild and severe levels of punishment contexts in low levels of reward environments is greater than in high levels of reward environments.

Figure 2.4: Research Model

Source: Adapted from **Chen et al. (2012);** *Liang et al. (2013) and Liu* **et al. (2022)**

To test the six hypotheses, a repeated-measure ANOVA with a between-subjects factor was performed. The aim is to establish if the means are significantly different between the two control Groups of High and Low (No) Certainty of Control[55] (each participant contributes to one of the

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[55] i.e., if CSO will check if they have complied with the Code issued.

two groups [56]), intending to establish if the independent variables (Reward and/or Punishment) measured over the four scenarios of the hypothetical federation have a significant influence on the dependent variable (Compliance) as presented in the six hypotheses above. The responses for each scenario are recorded in separate variables, and a within-subjects factor (compliance) is defined with four levels, one for each of the four scenarios. As such, eight scenarios were created, as presented in Table 4.1: Latin Square Design Matrix. These are Scenario 1, No Reward and No Punishment (NRNP); Scenario 2, No Reward and Severe Punishment (NRSP); Scenario 3, High Reward and No Punishment (HRNP); Scenario 4, High Reward and Severe Punishment (HRSP).

In the questionnaire (see Appendix B – Section A), for each of the four scenarios, the respondents were asked to reply to two [57] questions that refer to compliance:

(a) It is probable that the hypothetical Sport Federation will follow all the articles outlined in the Code (CI2), and

(b) The hypothetical Sport Federation will certainly follow all the articles outlined in the Code.

To perform the repeated-measure ANOVA with a between-subjects factor tests for the above-stated questions, four new variables were created, one for each scenario based on their mean replies (NRNP, NRSP, HRNP, HRSP).

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[56] The control group is called a between-subjects factor because it divides the subjects into groups.

[57] The questionnaire had 3 questions with regards to Compliance Intention, but the first question (CI1) was dropped during the item reduction analysis. See questionnaire in Appendix B.

Descriptive Statistics

In total, 223 responses were received equally separated in the two control groups (High Control $n=112$ and Low (No) Control $n=111$) for each of the four levels of Reward and/or Punishment, as presented in summary in Table 5.17, along with the mean and standard deviation of each group and each scenario. More detailed descriptive statistics of the measurements used in the study for the scenario questions can be found in Appendix C.

Table 5.17: Summary Descriptive Statistics of Data Collected

Scenario	Group 1 with Control (High) and Group 2 No Control	Mean	Std. Deviation	N
NRNP	High Control	2,9107	1,00721	112
	Low Control	2,6622	1,00942	111
	Total	**2,7870**	**1,01372**	**223**
NRSP	High Control	3,1652	,98956	112
	Low Control	3,0495	1,08493	111
	Total	**3,1076**	**1,03740**	**223**
HRSP	High Control	3,2768	1,00637	112
	Low Control	3,0495	1,02681	111
	Total	**3,1637**	**1,02068**	**223**
HRSP	High Control	3,3170	,98181	112
	Low Control	3,2883	1,08617	111
	Total	**3,3027**	**1,03284**	**223**
Source: Calculations in SPSS				

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5.3.1 Hypothesis 1: Effect of Punishment on the Intention to Comply

> **_Hypothesis 1_**_: The extent to which resources (funding) are deprived from NSFs because of not compliance with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code._

Hypothesis 1 (H1) seeks to investigate the impact of punishment on respondents' compliance intention with the Code. This hypothesis was empirically examined by assessing the influence of punishment in two distinct scenarios: NRNP (No Reward, No Punishment) and NRSP (No Reward, Severe Punishment). In essence, H1 explores how the absence of rewards combined with different levels of punishment affects individuals' willingness to adhere to the Code. Through this analysis, the aim is to shed light on the complex dynamics between punitive measures and compliance motivation.

Before interpreting the results of the repeated-measure ANOVA we need to consider the equality variance-covariance matrices of the difference scores between the two control groups. To do this, Box's test is used (Weinfurt, 2000). If Box's test significant value, i.e., greater than 0.001, not the 0.05 usually used as a threshold in statistics, (Pallant, 2016), there is evidence that the assumption of homogeneity of variance-covariance matrices was not violated.

Table 5.18: H1: Punishment x Intention - Box's Test of Equality of Covariance Matrices

Box's M	1,231
F	,406
df1	3
df2	8813998,815
Sig.	,749

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
Design: Intercept + GROUP Within Subjects Design: Punishment

Source: Calculations in SPSS

In this comparison, the Box's M Sig. value is p=0.749; (Table 5.18); therefore, this assumption has not been violated.

The multivariate test is used to assess whether the effect of the independent variables (Punishment) is statistically significant. Based on Wilks' Lambda, as shown in the multivariate test [58] results for *Punishment* x *Intention (to comply)* interaction, Wilks' Lambda effect is statistically significant with $\lambda=0.915$, F $(1,221)=20.480$, p=<0.001 indicating that the variation of means of compliance varies as a function of Punishment.

Table 5.19: H1: Punishment x Intention - Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Punishment	Pillai's Trace	,085	20,480	1,000	221,000	<.001
	Wilks' Lambda	,915	20,480	1,000	221,000	<.001
	Hotelling's Trace	,093	20,480	1,000	221,000	<.001
	Roy's Largest Root	,093	20,480	1,000	221,000	<.001

a. Design: Intercept + GROUP Within Subjects Design: Punishment

b. Exact statistic

Source: Calculations in SPSS

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[58] All of the multivariate tests yield the same result, but the most commonly reported statistic is Wilks' Lambda (Pallant, 2016).

For the main effect of *Punishment* x *Intention (to comply)* interaction, univariate tests (tests of within-subjects effects) are used. As there is no issue of sphericity (there are only two variables), the Sphericity Assumed results, and the Greenhouse-Geisser correction (as well as the others) are the same. Based on this, the test of Within Subjects Effects (Table 5.20) shows a significant difference in compliance due to the severity of punishment $F(1,221) = 20.480$, p=<0.001. The effect size observed in this interaction is moderate, as indicated by a Partial Eta Squared ($\eta p2$) value of 0.085. This effect size interpretation aligns with the commonly used guidelines proposed by Cohen (1988, pp. 284–7), as cited in Pallant (2016). According to these guidelines, effect sizes of 0.01 are considered small, effect sizes of 0.06 are considered moderate, and effect sizes of 0.14 are considered large. Therefore, the effect size observed in this interaction falls within the moderate range, indicating a meaningful impact of the variables on the outcome.

Table 5.20: H1: Punishment x Intention - Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Punishment	Sphericity Assumed	11,484	1	11,484	20,480	<.001	,085
	Greenhouse-Geisser	11,484	1,000	11,484	20,480	<.001	,085
	Huynh-Feldt	11,484	1,000	11,484	20,480	<.001	,085
	Lower-bound	11,484	1,000	11,484	20,480	<.001	,085
Error (Intention)	Sphericity Assumed	123,920	221	,561			
	Greenhouse-Geisser	123,920	221,000	,561			
	Huynh-Feldt	123,920	221,000	,561			
	Lower-bound	123,920	221,000	,561			

Source: Calculations in SPSS

> **The results support that the severity of punishment has a significant effect on the Code compliance therefore Hypothesis 1 is supported.**

5.3.2   Hypothesis 2: Effect of Reward on the Intention to Comply

> **_Hypothesis 2:_** *The level of reward for complying with the principles of the Good Governance Code (Code) is positively associated with the intention of NSFs to comply with the Code.*

Hypothesis 2 (H2) seeks to investigate the impact of rewards on respondents' compliance intention with the Code. This hypothesis was empirically examined by assessing the influence of reward in two distinct scenarios: NRNP (No Reward, No Punishment) and HRNP (High Reward, No Punishment). In essence, H2 delves into how the absence of rewards coupled with no punishment, as represented by NRNP, compares to the scenario of high rewards without any associated punishment, as represented by HRNP. Through this analysis, the aim is to shed light on the complex dynamics between reward structures and compliance motivation.

Table 5.21: H2: Reward x Intention - Box's Test of Equality of Covariance Matrices	
Box's M	,111
F	,037
df1	3
df2	8813998,815
Sig.	,991
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. Design: Intercept + GROUP Within Subjects Design: Reward	
Source: Calculations in SPSS	

With Box's M not violated (Sig. value at p=0.991, Table 5.21), Wilks' Lambda multivariate test is used. Based on Wilks' Lambda, the results for *Reward* x *Intention (to comply)* interaction,

Wilks' Lambda effect is statistically significant with λ=0.879, F (1,221)=30.666, p=<0.001 (Table 5.22) indicating that the variation of means of compliance varies as a function of Reward.

Table 5.22:   H2: Reward x Intention - Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Reward	Wilks' Lambda	,879	30,366[b]	1,000	221,000	<.001

a. Design: Intercept + GROUP Within Subjects Design: Reward

b. Exact statistic

Source: Calculations in SPSS

For the main effect of *Reward* x *Intention (to comply)* interaction, univariate tests (tests of within-subjects effects) are used.   The test of Within Subjects Effects showed a significant difference in compliance due to the level of Reward F (1,221) = 30.366, p=<0.001 (Table 5.23). The effect size observed in this interaction is considered moderate to large, with a Partial Eta Squared value of 0.121. This suggests that the variables have a meaningful and significant impact on the outcome.

Table 5.23:   H2: Reward x Intention -   Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Reward	Sphericity Assumed	15,824	1	15,824	30,366	<.001	,121
Error (Intention)	Sphericity Assumed	115,167	221	,521			

Source: Calculations in SPSS

> **The results support that the level of Reward has a significant effect on the Code compliance therefore Hypothesis 2 is supported.**

5.3.3 Hypothesis 3: Effect of Certainty of Control on the Intention to Comply

> **_Hypothesis 3:_** _Certainty of control will positively influence the intention to comply with the principles of the good governance code (Code)._

Hypothesis 3 (H3) ventures into an exploration of the impact of Certainty of Control on respondents' compliance intention with the Code. This hypothesis underwent empirical examination through an investigation of how certainty of control influences compliance motivation. Notably, this exploration was conducted within two distinct scenarios, NRNP (No Reward, No Punishment), and HRSP (High Reward, Severe Punishment).

Of significance is the fact that these scenarios were intentionally selected to be equivalent in terms of rewards and punishments. The absence of rewards and punishments in the NRNP condition, in contrast to the presence of both high rewards and severe punishments in the HRSP condition, allows us to isolate and assess the specific impact of Certainty of Control.

In this context, H3 seeks to unravel how the certainty of control, independent of incentives or punishment, shapes board members' intention to adhere to the Code. By scrutinising these scenarios, the aim is to gain valuable insights into the role of perceived control as a standalone factor in driving compliance behaviour, contributing to a more comprehensive understanding of compliance dynamics.

Table 5.24: H3: Control x Intention - Box's Test of Equality of Covariance Matrices

Box's M	2,920
F	,964
df1	3
df2	8813998,815
Sig.	,409

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + GROUP Within Subjects Design: Control

Source: Calculations in SPSS

With Box's M not violated (Sig. value at p=0.409, Table 5.24), Wilks' Lambda multivariate test is used. Based on Wilks' Lambda, the results for *Control* x *Intention (to comply)* interaction, Wilks' Lambda effect is statistically significant with λ=0.821, F (1,221)=48.188, p=<0.001 (Table 5.25) indicating that the variation of means of compliance vary as a function of Reward.

Table 5.25: H3: Control x Intention - Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Control	Wilks' Lambda	,821	48,188[b]	1,000	221,000	<.001

a. Design: Intercept + GROUP Within Subjects Design: Control
b. Exact statistic
Source: Calculations in SPSS

In examining the main effect of *Control* x *Intention (to comply)* interaction, univariate tests (tests of within-subjects effects) are used. The test of Within Subjects Effects showed a significant difference in compliance due to the certainty of Control F (1,221) = 29.709, p=<0.001 (Table 5.26). The effect size observed within this interaction was notably large, denoted by a Partial Eta Squared value of 0.179. This substantial effect size signifies a significant and influential relationship between the control environment and board members' intention to comply with the prescribed norms and regulations. In essence, the variables under examination (i.e., (high) control and (low)

no control) exert a considerable impact on the outcome, suggesting that variations in the certainty

of control are associated with pronounced differences in compliance behaviour.

Table 5.26: H3: Control x Intention -   Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Control	Sphericity Assumed	29,709	1	29,709	48,188	<.001	,179
Error(Control)	Sphericity Assumed	136,250	221	,617			

Source: Calculations in SPSS

The results support that the certainty of Control has a significant effect on the Code compliance therefore Hypothesis 3 is supported.

5.3.4   Hypothesis 4: Effect of the interaction of Punishment and Certainty of Control on the Intention to Comply

__Hypothesis 4:__ The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of punishment contexts in high certainty of control environments is smaller than in low certainty environments.

Hypothesis 4 (H4) delves into a more intricate examination, focusing on the nuanced interplay between punishment, certainty of control, and respondents' intention to comply with the Code.

Specifically, H4 investigates the two-way interaction between punishment and certainty of control on respondents' intention to comply with the Code *(Punishment x Control x Intention (to comply))*. To explore this complex relationship, the hypothesis was scrutinised within the context of two distinct scenarios, NRNP (No Reward, No Punishment), and NRSP (No Reward, Severe Punishment), akin to the setup in Hypothesis 1.

However, H4 takes this exploration a step further by introducing an additional layer of complexity. In this hypothesis, respondents were not only exposed to variations in rewards and punishments but were also randomly allocated to either the Control (High) or No (Low) Control group. This multifaceted approach allows us to probe the interplay between punishment, certainty of control (i.e., with the presence or absence of control mechanisms) and board members' compliance intentions.

Given that Box's M test did not indicate a violation of assumptions (with a significance value of p = 0.749, as seen in Table 5.18 in Hypothesis 1), Wilks' Lambda multivariate test was used for further analysis. The objective was to scrutinise the results pertaining to the interaction between Punishment, Control, and Intention to Comply (Punishment x Control x Intention).

Based on the Wilks' Lambda statistics, the effect observed within this interaction was not statistically significant, as indicated by $\lambda = 0.996$, $F(1,221) = 0.878$, $p = 0.350$ (as detailed in Table 5.27). These findings suggest that the variation in means of compliance, specifically within the context of the two-way interaction between punishment and the level of control certainty, does not reach a statistically significant level. In simpler terms, the results imply that the differences in compliance levels observed in relation to the interplay between punishment and the degree of control certainty are not substantial enough to be considered statistically significant.

Table 5.27: H4: Punishment x Control x Intention - Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Punishment * GROUP	Wilks' Lambda	,996	,878[b]	1,000	221,000	,350

a. Design: Intercept + GROUP Within Subjects Design: Intention

b. Exact statistic

Source: Calculations in SPSS

To examine the primary effect of the two-way interaction, namely the *Punishment x Control x Intention (to comply)* interaction, univariate tests were employed, specifically tests of within-subjects effects. These tests were conducted to assess whether there was a statistically significant difference in compliance within the context of this interaction.

However, the results from the test of Within Subjects Effects did not yield a statistically significant difference. In particular, the F-statistic was found to be $F(1,221) = 0.878$, with a p-value of 0.350, as documented in Table 5.28. This lack of statistical significance suggests that the variation in compliance levels observed within the two-way interaction of punishment and certainty of control did not reach a level that can be considered statistically meaningful.

Table 5.28: H4: Punishment x Control x Intention -   Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Punishment * GROUP	Sphericity Assumed	,493	1	,493	,878	,350	,004
Error(Punishment)	Sphericity Assumed	123,920	221	,561			

Source: Calculations in SPSS

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Furthermore, the effect size, as indicated by the Partial Eta Squared value of 0.004, further supports the notion of a weak effect. This implies that the influence of the two-way interaction between punishment and certainty of control on respondents' intention to comply with the Code is minimal in magnitude. In essence, this interaction seems to have only a slight impact on compliance behaviour within the context of the study, suggesting that, in isolation, the interplay between punishment and control certainty may not be the primary driver of compliance behaviour in this particular context.

The plot in Figure 5.13 graphically illustrates the contrasting effects of scenarios involving no punishment and severe punishment on compliance intention. Importantly, this visual representation illustrates that these effects remain statistically comparable, irrespective of whether there is a high degree of certainty of control (high) or no (low) control.

Figure 5.13: Plot of Interaction between Punishment and Control (H4)
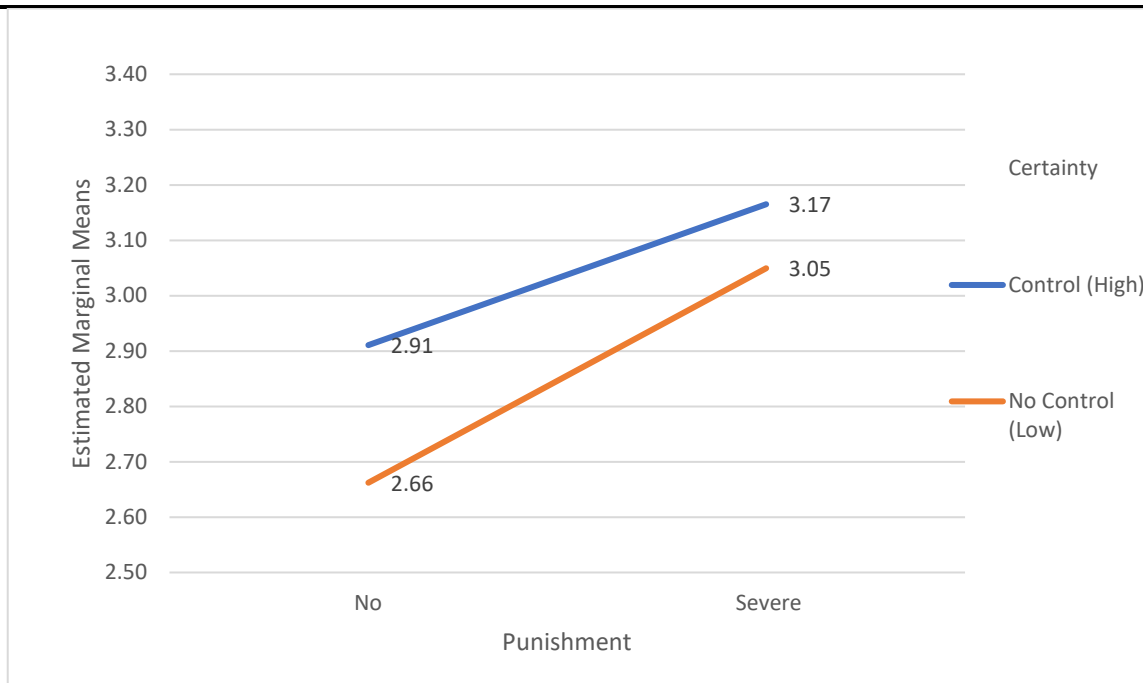
Source: Calculations in SPSS

Furthermore, the figure underscores a key finding: the two-way interaction between the severity of punishment and the level of control certainty does not exert a significant influence on compliance intention. In other words, regardless of the extent of punishment severity or the presence of control measures, the impact on board members' willingness to comply with the Code appears to be consistent and not statistically different.

The results do not support that the two-way interaction between Punishment and Certainty of Control has a significant effect on the Code compliance therefore Hypothesis 4 is rejected.

5.3.5   Hypothesis 5: Effect of the interaction of Reward and Certainty of Control on the Intention to Comply

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Hypothesis 5: *The impact of reward on the intention to comply with the principles of the good governance code (Code) is moderated by the certainty of control: the difference in impact on intention to comply between high and low levels of reward contexts in high certainty of control environments is smaller than in low certainty environments.*

Hypothesis 5 (H5) explores the complex relationship between reward, certainty of control, and board members' intention to follow the Code. It goes beyond previous research by examining the subtle interactions between these factors. Specifically, H5 investigates the two-way interaction between reward and certainty of control on respondents' intention to comply with the Code *(Reward x Control x Intention (to comply))*.

To explore this complex relationship, the hypothesis was scrutinised within the context of two distinct scenarios, NRNP (No Reward, No Punishment) and HRNP (High Reward, No Punishment), as in Hypothesis 2. However, Hypothesis 5 takes a step further in its examination. In this hypothesis, an additional dimension was introduced by incorporating the Control (High) or No (Low) Control group, to which each respondent was randomly allocated. This multifaceted approach allows us to probe the interplay between reward, control certainty, and compliance intention under varying conditions.

In essence, H5 scrutinises how respondents' intention to comply is influenced not only by the presence or absence of rewards but also by the pivotal factor of control certainty within their respective groups.

Given that Box's M test did not indicate a violation of assumptions (with a significance value of p=0.991, Table 5.21, Hypothesis 2), Wilks' Lambda multivariate test was employed for further analysis. The objective was to scrutinise the results pertaining to the interaction between *Reward x Certainty of Control* x *Intention (to comply)*.

However, the outcomes derived from the Wilks' Lambda statistics did not reveal any statistically significant effects. Specifically, the Wilks' Lambda effect was found to be $\lambda = 1.000$, accompanied by an F-statistic of $F_{(1,221)} = 0.024$ and a p-value of 0.876, as detailed in Table 5.29. These findings collectively indicate that the variation in means of compliance within the context of the two-way interaction between reward and certainty of control is not statistically significant. In simpler terms, the results suggest that the differences in compliance levels observed concerning the interplay between rewards, control certainty, and compliance intentions are not substantial enough to be considered statistically meaningful.

Table 5.29: H5: Reward x Control x Intention - Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Reward * GROUP	Wilks' Lambda	1,000	,024[b]	1,000	221,000	,876

a. Design: Intercept + GROUP Within Subjects Design: Intention

b. Exact statistic

Source: Calculations in SPSS

To examine the primary effect of the two-way interaction, specifically *Reward x Certainty x Intention (to comply)* interaction, univariate tests (tests of within-subjects effects) are used. However, the results from the test of Within Subjects Effects did not reveal a statistically significant difference in compliance within this two-way interaction, as evidenced by $F (1,221) = 1.000$ and a p-value of 0.876, as presented in Table 5.30.

Table 5.30: H5: Reward x Control x Intention - Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Reward * GROUP	Sphericity Assumed	,013	1	,013	,024	,876	,000
Error(Reward)	Sphericity Assumed	115,167	221	,521			

Source: Calculations in SPSS

Moreover, the effect size, as indicated by the Partial Eta Squared value of <0.001, further substantiates the conclusion of a weak effect. This suggests that the influence of the two-way interaction between reward and control certainty on respondents' intention to comply with the Code is almost negligible in magnitude. In essence, this interaction appears to have almost no impact on compliance behaviour within the context of the study.

The plot in Figure 5.14 graphically illustrates that the difference in impact between the absence of rewards and high rewards on compliance intention remains statistically consistent, whether at high or low levels of control certainty.

Figure 5.14: Plot of Interaction between Reward and Control (H5)
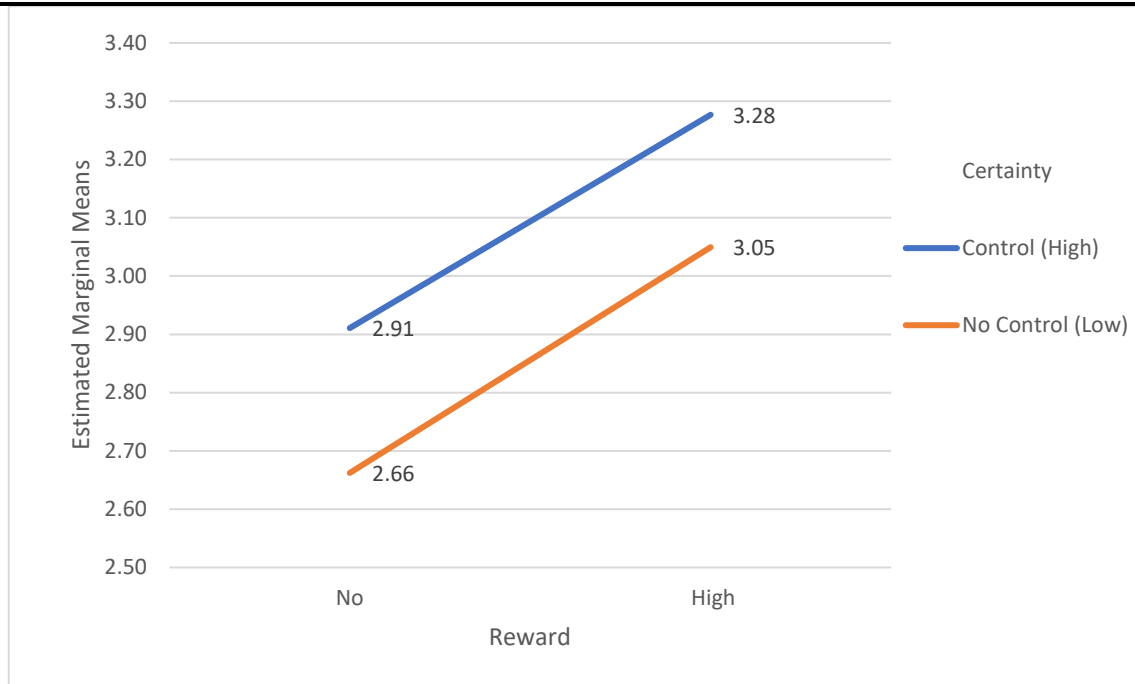
Source: Calculations in SPSS

The results do not support that the two-way interaction between Reward and Certainty of Control has a significant effect on the Code compliance therefore Hypothesis 5 is rejected.

5.3.6 Hypothesis 6: Effect of the interaction of Punishment and Reward on the Intention to Comply

> **_Hypothesis 6:_** *The impact of punishment on the intention to comply with the principles of the good governance code (Code) is moderated by reward: the difference in impact on intention to comply between mild and severe levels of punishment contexts in low levels of reward environments is greater than in high levels of reward environments.*

Hypothesis 6 (H6) embarks on an extensive examination by exploring the intricate two-way interaction between punishment and reward concerning respondents' intention to comply with the Code, referred to as *Punishment x Reward x Intention (to comply)*.   To unveil the complexities of this interaction, a comprehensive investigation encompassing all four variables: NRNP (No Reward, No Punishment), HRNP (High Reward, No Punishment), NRSP (No Reward, Severe Punishment), and HRSP (High Reward, Severe Punishment) was conducted.   In essence, H6 scrutinises how the interplay between punishment severity and the presence or absence of rewards shapes respondents' intention to comply with the Code across these diverse scenarios.

Table 5.31: H6: Punishment x Reward x Intention - Box's Test of Equality of Covariance Matrices

Box's M	8,617
F	,845
df1	10
df2	233459,571
Sig.	,585

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + GROUP
 Within Subjects Design: Reward + Punishment + Reward * Punishment

Source: Calculations in SPSS

Given that Box's M test did not indicate any violations of assumptions (with a significance value of p=0.585, Table 5.31), Wilks' Lambda multivariate test is used for further analysis. The

aim was to thoroughly investigate the results regarding the interaction between *Punishment x*

Reward x *Intention (to comply).*

The outcomes derived from the Wilks' Lambda statistics revealed a statistically significant

effect. Specifically, the Wilks' Lambda effect was found to be λ=0.981, F(1,221)=4.241, p=0.041,

as presented in Table *5.32*. These findings collectively indicate that the variation in means of

compliance within the context of the two-way interaction between punishment and reward on

respondents' intention to comply is statistically significant. In other words, the results suggest that

the differences in compliance levels observed concerning the interplay between punishment

severity and the presence or absence of rewards are statistically meaningful.

Table 5.32: H6: Punishment *x Reward x Intention - Multivariate Tests*

Effect		Value	F	Hypothesis df	Error df	Sig.
Reward * Punishment	Wilks' Lambda	,981	4,241[b]	1,000	221,000	,041

a. Design: Intercept + GROUP Within Subjects Design: Reward + Punishment + Reward * Punishment

b. Exact statistic c. Computed using alpha = .05

Source: Calculations in SPSS

To examine the primary effect of the two-way interaction, *Punishment x Reward x Intention*

(to comply) interaction, univariate tests (which are tests of within-subjects effects) are used. The

test of Within Subjects Effects showed a marginally significant difference in compliance on the

two-way interaction with F (1,221) = 4.241 p=0.041 (Table 5.33). The effect size observed in this

interaction is considered small, with a Partial Eta Squared value of 0.019. This indicates a

relatively minor impact of the two-way interaction between punishment and reward on

respondents' intention to comply.

Table 5.33: H6: Punishment x Reward x Intention - Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Reward * Punishment	Sphericity Assumed	1,836	1	1,836	4,241	,041	,019
Error(Reward*Punishment)	Sphericity Assumed	95,664	221	,433			

Source: Calculations in SPSS

The plot in Figure 5.15 further substantiates Hypothesis 6 by providing graphical evidence that underscores the hypothesis's assertion. Specifically, the figure visually demonstrates that the impact of punishment on board members' intention to comply with the Code is notably more pronounced when the level of reward is low, as compared to situations where the reward is high.

Figure 5.15: Plot of Interaction between Punishment and Reward (H6)
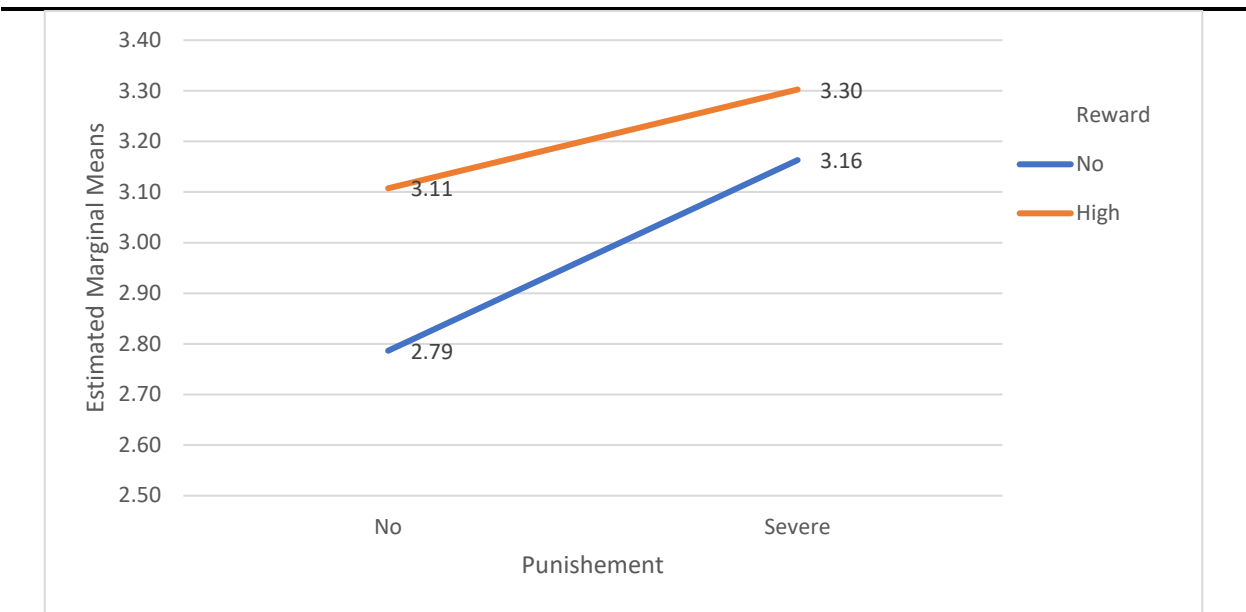
Source: Calculations in SPSS

The results support that the two-way interaction between Punishment and Reward has a significant effect on the Code compliance Hypothesis 6 is supported.

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5.4 Concluding Section

To investigate the impact of various factors related to the NSF's profile and respondents' demographics on their intention to comply with the principles of a Code, a one-way ANOVA with a between-subjects factor was conducted for seven out of eight elements. These elements were tested against the mean scores of the four compliance scenarios. Additionally, a repeated-measures ANOVA with a between-subjects factor was performed for the gender variable to assess the intention to comply differently across the four compliance scenarios. The results of these analyses are depicted graphically in Figure *5.16*, and a summary of the findings is presented below:

Figure 5.16: Figure 2.4: Research Model Results
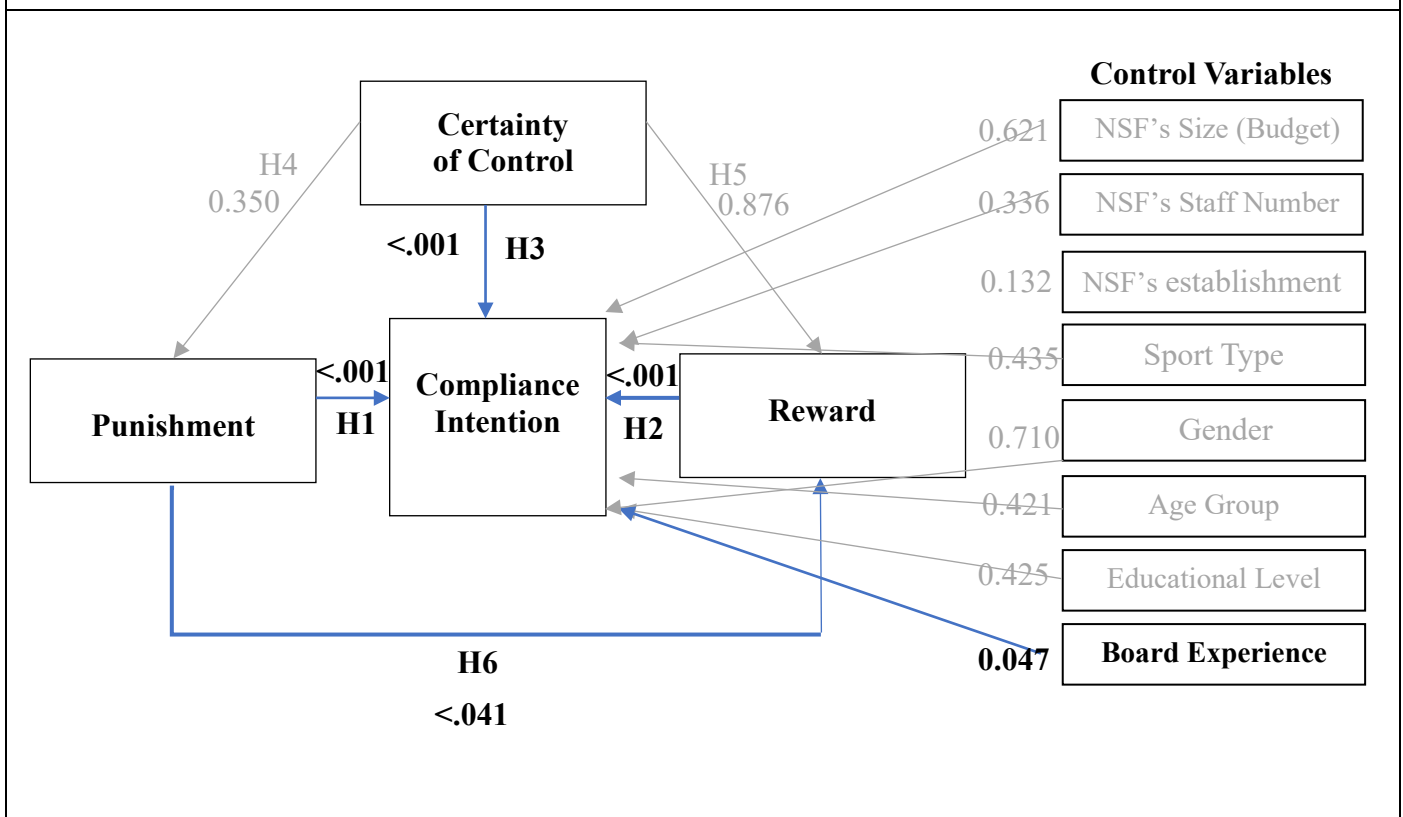
Among the eight profile and demographic variables scrutinised in the study, a notable finding emerges: only one factor, "Board Experience," has demonstrated a statistically significant impact on the inclination of board members to adhere to the Code. To elucidate further, this discovery

suggests that as board members accumulate more experience over an extended period of service, their commitment to adhering to the Code's principles diminishes.

With regards to the six hypotheses of the study as presented above Hypotheses 1, 2, 3, and 6 are accepted, while Hypotheses 4 and 5 are rejected. Their statistical results are summarised in Table 5.34.

Table 5.34: Summary of ANOVA Results and Hypotheses Test Results

Hypothesis	Mean square	F-value	p-value	Partial Eta Squared	Support
H1: Punishment x Intention	11,484	20,480	<,001	0,085	**YES**
H2: Reward x Intention	15,824	30,366	<,001	0,121	**YES**
H3: Control x Intention	29,709	48,188	<,001	0,179	**YES**
H4: Punishment x Control x Intention	0,493	0,878	0,350	0,004	**NO**
H5: Reward x Control x Intention	0,013	0,024	0,876	<0,001	**NO**
H6: Punishment x Reward x Intention	1,836	4,241	0,041	0,019	**YES**

Notes: df = 1, 221

Source: Calculations in SPSS

Moving beyond a simple acceptance or rejection of each hypothesis, a more comprehensive understanding of their effect sizes can be gained by considering their Partial Eta Squared values. Adhering to established guidelines proposed by Cohen (1988, pp. 284–7) as cited in Pallant (2016), where 0.01 denotes a small effect, 0.06 signifies a moderate effect, and 0.14 indicates a large effect, we can discern the relative impact of each hypothesis. As anticipated, Hypotheses H4 and H5, which were rejected, demonstrate no substantial impact, consistent with their non-significant results.

Among the four accepted hypotheses (H1, H2, H3, and H6), the effect of Control (i.e., whether the funder checks if the NSF has complied with the Code) emerges as the most influential,

with a noteworthy Partial Eta Squared value of 0.179. When examining the influence of Punishment and Reward, it becomes apparent that Reward exerts a more significant impact, with a Partial Eta Squared value of 0.121, as opposed to Punishment, which registers a slightly lower effect with a Partial Eta Squared value of 0.085. Finally, Hypothesis 6 (H6: Punishment x Reward x Intention), although accepted as statistically significant, exhibits a relatively small effect, as indicated by its lowest Partial Eta Squared value of 0.019. This aligns with the fact that its significance level is at p=0.041 and was marginally accepted, suggesting that its impact on compliance behaviour is relatively minor compared to the other hypotheses

Figure 5.17 serves as a visual representation that effectively encapsulates the results of the six hypotheses, providing a clear and concise overview of the study's findings.

Figure 5.17: Plot of Compliance Intention by Group and Scenario (Summary of Results)
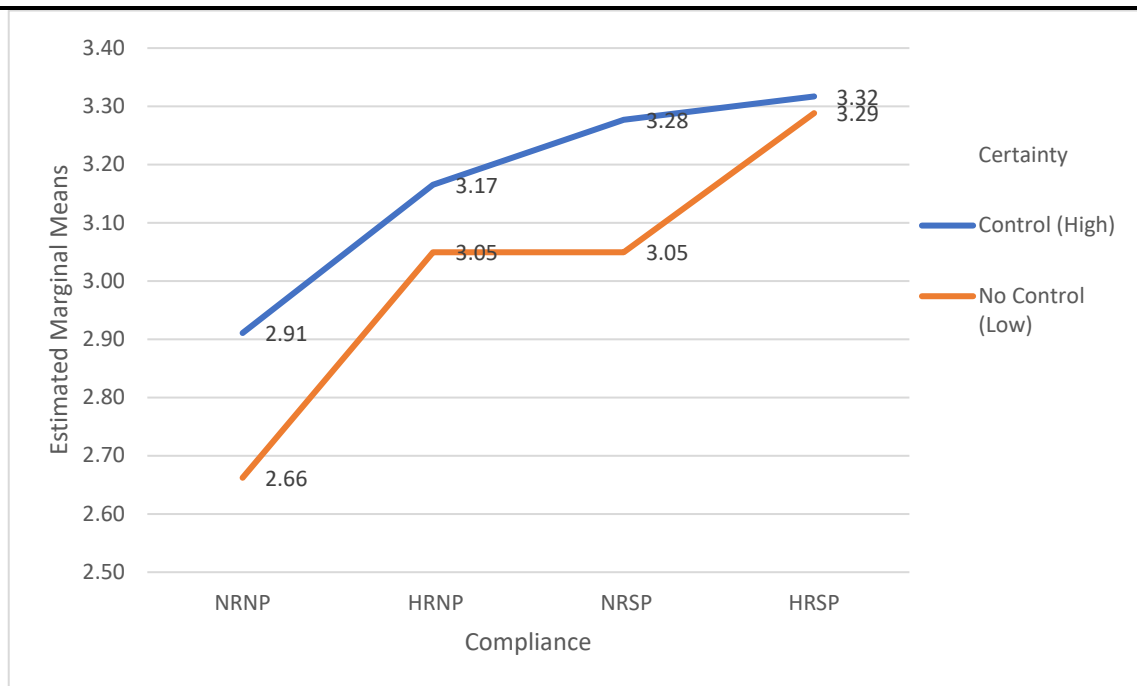
Source: Calculations in SPSS

In summary, it can be deduced that the intention of National Sport Federations (NSFs) to adhere to the principles outlined in a Code of Good Governance tends to rise in tandem with increases in the certainty of control, punishment, and financial rewards from the funder. Interestingly, as both punishment and reward levels increase, the necessity for stringent control measures appears to diminish. This suggests a complex interplay of factors wherein NSFs may exhibit a greater willingness to comply with governance principles when they perceive a clear framework of control and incentives, while simultaneously reducing the need for external oversight as incentives grow stronger.

Chapter 6

Discussion

6.1   Introduction and purpose

The purpose of this study was to identify how effective different means for exercising control are in encouraging National Sport Federations (NSFs) to follow a set of good governance rules (i.e. the Code). This was performed by examining three such means of control enactment that promote governance compliance, namely: punishment, reward, and certainty of control, each administered at two levels, through a questionnaire with a 2 x 2 x 2 mixed design. On the basis of this design eight scenarios have been developed, four for high and four for low (no) certainty of control [59] (i.e. with control (high) or no (low) control), aiming to test their impact and interaction effects, as shown in Table 4.1.

The study provided substantial support for four out of the six hypotheses, reinforcing the validity of the theoretical model proposed. Notably, punishment, reward, and certainty of control were all found to have significantly positive effects on promoting compliance among National Sport Federations (NSFs) with the Code. Additionally, the interaction between punishment, reward, and control was also observed to be significant.

The research findings can be interpreted through the lenses of Institutional Theory and Resource Dependency Theory. Institutional Theory suggests that organisations, such as NSFs, are influenced by institutional pressures to conform to prevailing norms, rules, and practices within their environment. Compliance with good governance principles can be seen as a response to these external pressures, driven by the need for legitimacy, both internally and externally (DiMaggio & Powell, 1983; Papadimitriou, 1998). The findings align with Institutional Theory by

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[59] The same four i.e., Scenario 1: No Reward and No Punishment; Scenario 2: No Reward and Severe punishment; Scenario 3: High Reward and No Punishment; Scenario 4: High Reward and No Punishment, varied for high and for low (no) certainty of control.

demonstrating how the presence of punishment and reward mechanisms can shape the intention of NSFs to comply with good governance principles.

On the other hand, Resource Dependency Theory emphasises the role of external resources and dependencies in shaping organisational behaviour. NSFs often rely on funding from external sources, such as governmental agencies, making them dependent on these entities for financial support. The presence of punishment and/or reward mechanisms by funders can be seen as a manifestation of power and control over resources (Emerson, 1962; Pfeffer & Salancik, 1978). The research findings support Resource Dependency Theory by highlighting how the anticipation of severe punishment and high rewards can influence NSFs' compliance intentions to secure continued access to resources and maintain their relationship with funders.

When considering the theoretical insights from both Institutional and Resource Dependency theories, the findings of this study provide a comprehensive understanding of the factors that influence the compliance intentions of NSFs. These theoretical perspectives shed light on the dynamics between NSFs and their external environment, emphasising on the role of institutional pressures and resource dependencies in shaping their behaviour and decision-making processes.

As such, the intention of NSFs to comply with the principles of a Code of Good Governance increases as certainty of control, punishment, and reward (from the funder) increases. These results are in line with the resource dependency theory and institutional theory as highlighted by Papadimitriou (1998, p. 169), who stated that as non-profit, sport organisations are externally resource dependent they are "*obligated or choose to conform to institutional pressures because of their dominant rationality to mobilise resources.*". This is further supported by

compliance theory and general deterrence theory as portrayed by the existence of centralised resources within a field that increase the potential for coercive pressures to exist (DiMaggio, 1983).

Overall, the study provides valuable insights into the effectiveness of the three governance-promoting factors: punishment, reward, and certainty of control, and highlights the importance of considering both punishment and reward as potential strategies for promoting compliance with a Code.

6.2   Effects of Punishment

The research findings on the effects of punishment on compliance behaviour are consistent with the principles of the GDT. According to GDT, imposing punishment or sanctions can act as a deterrent, dissuading individuals, or organisations from engaging in undesirable behaviour (Friesen, 2012). This aligns with the positions of Becker (1968) and Friesen (2012), who assert that the certainty and severity of the anticipated punishment greatly influence the deterrence of undesired behaviour or a lack of compliance. These findings align with existing research in the field of punishment, which suggests that for coercion or punishment to have a substantial impact, it should commence at a relatively high level of severity (Arvey & Ivancevich, 1980).

The findings also indicate that the threat of punishment can effectively support the efforts of national sport agencies in incentivising NSFs to adopt and adhere to the principles of good governance. By establishing a clear and potentially severe consequence for non-compliance with the governance code, NSFs are more likely to perceive the need for compliance as crucial and take the necessary steps to align their practices accordingly.

The notion that punishment should start at a relatively high level also implies that the severity of the consequences associated with non-compliance should be clearly communicated and

understood by NSFs from the outset. This ensures that the threat of punishment is perceived as credible, thereby increasing the likelihood of compliance. When NSFs recognise the potential severity of the punishment, they are more motivated to comply with the principles of good governance, thereby aligning their behaviour with the expectations set by the national sport agencies. This finding is in agreement with Arvey and Ivancevich (1980, p. 126) who stated that *"where the aversive stimulus is relatively weak, subjects may adapt to the stimulus level and continue to emit the punished behaviour"*.

Overall, the findings emphasise that implementing punishment as a deterrent strategy can play a vital role in promoting compliance with good governance principles by NSFs. By highlighting the potential consequences of non-compliance, national sport agencies can effectively encourage NSFs to adopt and adhere to the governance code, fostering a culture of good governance within the sport industry.

6.3 Effects of Reward

The study also found that reward enforcement, a remunerative control mechanism to promote good governance among NSFs, could be an alternative for cases where sanctions do not successfully promote compliance with the Code's principles.

This finding is consistent with Etzioni's remunerative power (Etzioni, 1975) when he proposed that the one who controls the resources can use rewards to promote compliance. It is also supported by Levinthal (1988), who, through the lens of agency theory, proposed that since agents (NSFs in this case, as custodians of sports) are rational and motivated by self-interest they will aim to maximise their own pay-off, without necessarily seeking the maximisation of the payoff of the principal (the funding agency aiming at improved governance, through Code compliance for the benefit of sports). Since the funding agency (principal) cannot enforce a particular effort level,

it must manipulate the NSFs' (agent's) self-interest by providing rewards to realign this goal conflict. The level of reward provided by the funding agency is thus expected to influence the effort level of the NSF's board to adopt principles of good governance by adopting the principles of governance proposed by the Code.

A reward system attached to the adoption of the Code will indicate that compliance with it is nearly mandatory, increasing the chances of NSFs adopting the principles foreseen by the Code and complying with it. This suggests that using rewards as a control mechanism can effectively improve the governance of NSFs in situations where punishment alone may not be sufficient.

6.4   Effects of Certainty of Control

Vroom's Expectancy Theory (Vroom, 1964) proposes that individuals make conscious decisions about how much effort to put into a task based on their expectations about the outcomes. This is supported by the findings of this study, as the intention to comply increases with certainty of control. Therefore, both reward and punishment can be used as control mechanisms to encourage NSFs to comply with the Code, with certainty of control being the probability that the enforcement strategy will come into effect (Chen et al., 2012). When NSFs perceive a high level of certainty associated with control and enforcement, whether related to compliance or noncompliance, their intention to comply with the Code is expected to increase. This aligns with Vroom's Expectancy Theory, as individuals are more likely to invest effort when they believe that their actions will yield predictable outcomes.

Furthermore, when there is no punishment for non-compliance or reward for compliance, the certainty of control has a greater impact on the intention to comply. This is a finding that is in line with DiMaggio and Powell's (1983) coercive isomorphism. According to DiMaggio and

Powell (1983), coercive isomorphism is demonstrated where influential organisations expect dependent organisations to comply with their requirements.

In the context of this study, when NSFs perceive a high certainty of control without the presence of explicit punishment or reward mechanisms, they are more likely to comply with the Code's principles. This can be attributed to the influence and expectations exerted on NSFs by influential organisations, such as funding agencies or governing bodies. The implicit understanding of compliance expectations creates a sense of pressure for NSFs to conform to the requirements, resulting in a higher intention to comply.

6.5   Effects of the two-way interaction of Certainty of Control with Reward

It was initially hypothesised that certainty of control (i.e. certainty of audit for Code compliance) would moderate the relationship between punishment and reward on the one hand, and compliance intention on the other, with higher levels of control certainty increasing the impact of punishment or reward on compliance intention (Grasmick & Bryjak, 1980). However, this research reveals that the effect of punishment or reward on compliance intention is not moderated by certainty of control; and this is a notable result, contradicting current research (Chen et al., 2012). This unexpected finding suggests that other factors may be more influential in shaping the impact of punishment or reward on compliance intention. For instance, individual attitudes and beliefs about the importance of complying with regulations may be stronger predictors of compliance intention than the level of control present in the regulatory environment (Ajzen, 1991)

One possible explanation for the two-way interaction between certainty of control and reward is that current practices do not use reward as an incentive mechanism for compliance. In other words, NSFs would not receive a reward for following the governance principles outlined in the Code issued by the Cyprus Sport Organisation (CSO), nor would they receive a reward for

complying with other rules and procedures established by CSO related to the funding they receive. It is therefore supposed that the influence of rewards on NSFs is primarily symbolic or psychological. By offering a reward as a token of appreciation for complying with regulations, NSFs are provided with a sense of gratification and confidence, which prompts them to comply, at least temporarily, regardless of whether the reward is ultimately delivered or merely promised (Chen et al., 2012). It's conceivable that NSFs don't immediately grasp the likelihood linked to the reward and instead construct their convictions in this probability before associating it with the reward.

6.6 Effects of the two-way interaction of Certainty of Control with Punishment

The lack of significance in the two-way interaction between certainty of control and punishment is an even bigger surprise, given that punishment in the form of subsidy reductions is the only control mechanism, at the moment, adopted by the CSO as a means to encourage NSFs to adhere to the rules and procedures established for granting subsidies. One possible explanation for this is that NSFs are accustomed to facing penalties for non-compliance with other issues and undergoing compliance checks. In essence, NSFs adhere to the Code under the assumption that, since they face penalties in other areas, the potential application of penalties for non-compliance makes the certainty of control redundant as an explanatory variable. As already established (hypothesis 1), the threat of punishment will promote compliance with the Code, while somehow certainty of control is taken for granted and its level or even absence does not affect NSFs' intention to comply as presented in this study. Furthermore, the fact that CSO, despite currently checking compliance with the Code, as part of a routine audit practice, it has not penalised any NSF for not complying with any of the provisions or guidelines of the Code. This might have created the perception that audits for compliance with the Code are not linked to punishment and

that audits or other control mechanisms will not increase the anticipated punishment for not complying.

6.7 Effects of the two-way interaction of Punishment and Reward

This research has uncovered a noteworthy finding regarding the relationship between reward and punishment, emphasising the asymmetrical effects of these two mechanisms on Code compliance when used together. The study's findings, as illustrated in Figure 5.15, demonstrate that both high and no reward have little influence on compliance intention when severe punishment is in effect, compared to no punishment. This finding suggests that adding a reward as a control mechanism may not significantly increase compliance when punishment is already severe. However, when there is no threat of punishment in place, incorporating a reward can effectively increase compliance.

This result implies that the impact of reward and punishment on compliance intention is not the same, and the severity of punishment plays a crucial role in determining the effectiveness of a reward system. When the threat of punishment is severe, it may serve in its own right as a strong enough deterrent to prevent non-compliance, while a reward system may not be necessary. On the other hand, when there is no threat of punishment in place, a reward system may act as an additional incentive to encourage compliance.

An even more intriguing finding surfaces when considering the simultaneous introduction of severe punishment and high reward in relation to compliance intention. As depicted in Figure 5.17, the high presence of both control mechanisms results in the highest level of compliance intention, regardless of the perceived certainty of control. This suggests that when NSFs are faced with the prospect of severe punishment for non-compliance and significant rewards for adherence, the need for additional control measures in the form of e.g. funding agency proclamations of

compliance audits, diminishes. In other words, the combined effect of severe punishment and high reward seems to create a powerful incentive structure that voluntarily motivates NSFs to comply with good governance principles.

This finding challenges the notion that strict audit measures are the sole or most effective means for ensuring compliance (Chen et al., 2012). Instead, it suggests that a well-designed incentive system combining punishment and reward can create a self-regulating environment where NSFs are motivated to adhere to good governance principles without the constant need for funding agencies to maintain NSF perceptions of a high threat of external monitoring and enforcement.

6.8   Effects of control variables

Among the eight control variables examined, [60] only one appears to impact the intention to comply significantly, as NSFs size/number of employees history, type and participants' age, gender, and education made no difference.   Only the number of years as board members showed a significant impact on the intention to comply. The findings indicate board members' willingness to comply decreases as they approach the tenth-year membership limit set by the current Code (as issued by the CSO). This outcome is consistent with expectations on what would constitute rational behaviour, as the Code's provisions could potentially lead to board members' removal from the NSF's board.

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[60] As a reminder these are: size of federation based on their annual budget; number of employees; how many years ago the federation was established (history); type of sport (individual or team); gender, age group; education level; number of years as board member.

6.9   Concluding Section

The introduction of punishment and reward as deterrent and incentive control mechanisms, respectively, reduces the need for external (i.e., funding agency) monitoring. Etzioni's compliance framework perfectly articulates this phenomenon (Etzioni, 1964, p. 58) *"… organisations require formally structured distribution of rewards and sanctions to support compliance with their norms, regulations, and orders."* This is further supported by Liang et al. (2013 p. 3) who stated that *" .. control uses codified rules and policies and has an explicit sanction component that intends to regulate behaviour by rewarding or punishing".* Figure 5.17 clearly illustrates the impact of different control mechanisms on the intention to comply. These can be summarised as follows:

a. As the certainty of control (monitoring) increases, the intention to comply rises. This means that in all cases, regardless of whether a reward, punishment, or both are introduced, NSFs are more likely to comply when they feel that there is high risk of being monitored or held accountable. However, the impact of the certainty of control diminishes gradually as reward and/or, punishment are introduced.

b. In the absence of any control (monitoring), when used separately, the threat of punishment and the incentive of reward yield the same level of compliance intention. This could potentially suggest that when NSFs are not being monitored, the motivation to comply is driven by the potential outcomes of their past behaviour rather than by monitoring their behaviour as it unfolds.

c. When certainty of control and the threat of punishment (without reward) are present, this leads to a higher compliance intention than when certainty of control and the incentive of reward (without punishment) are present. This implies that the fear of

negative consequences is a more potent motivator for compliance than the promise of positive reinforcement.

d. When both the threat of punishment and the incentive of reward are introduced, the intention to comply is almost the same, regardless of the level of the certainty of control. This indicates that using both positive and negative outcomes can effectively motivate compliance, with the need for external control significantly reduced.

Moreover, there is a negative correlation between the duration of board membership and the board members' willingness to adhere to good governance provisions. Typically, as board members spend more time on the National Sports Federation (NSF) board, their inclination to comply with the Code diminishes. This outcome is predictable since the Code specifies a maximum term limit of ten years.

Overall, these findings have important implications for governmental agencies seeking to improve the governance of NSFs. Understanding the impact of different control mechanisms, allows them to design more effective strategies that align with their goals and values.

Chapter 7

Conclusions

7.1   Introduction and purpose

In the world of sports, where multiple stakeholders, including governments, seek to safeguard their essence and integrity, the proliferation of good governance Codes issued by various entities, whether national, supranational, or within the sports movement itself, is inevitable. However, the development of such Codes represents only an initial step toward the adoption of and compliance with best governance principles.   To truly enhance governance in sports organisations, both at the national and international levels, there is a pressing need to persuade these organisations to embrace the principles espoused by such Codes.

At the national level, the endeavour to encourage compliance has primarily relied on the threat of punitive measures, such as withholding or reducing government funding to sports organisations, particularly National Sport Federations (NSFs). Notably, what has remained unexplored, both theoretically and empirically, is the potential effectiveness of incorporating rewards, in addition to punitive measures, to incentivise the adoption of good governance principles. This thesis endeavoured to address this theoretical and practical gap comprehensively.

Adopting a multitheory perspective in compliance and governance, this study incorporated the theories of Resource Dependency Theory (RDT) and Institutional Theory. It aimed to discern whether a "stick or carrot" approach (punishment or reward), potentially reinforced by the certainty of monitoring, proves more effective in promoting compliance with good governance Codes as part of a broader effort to enhance the governance of sports organisations.

7.2   Research undertaken

The research undertaken to answer these questions took the form of an on-line anonymous questionnaire. The scales used in this questionnaire were developed and validated following a rigorous methodology as documented in the literature. The questionnaire was addressed to the

board of directors of the NSFs of Cyprus. In total, 223 replies were received representing approximately 40% of their board members.

The results supported four of the six hypotheses proposed in Chapter 2, which are diagrammatically presented in **Figure *5.16*** (duplicated) below:

Figure 5.16 : Figure 2.4: Research Model Results*
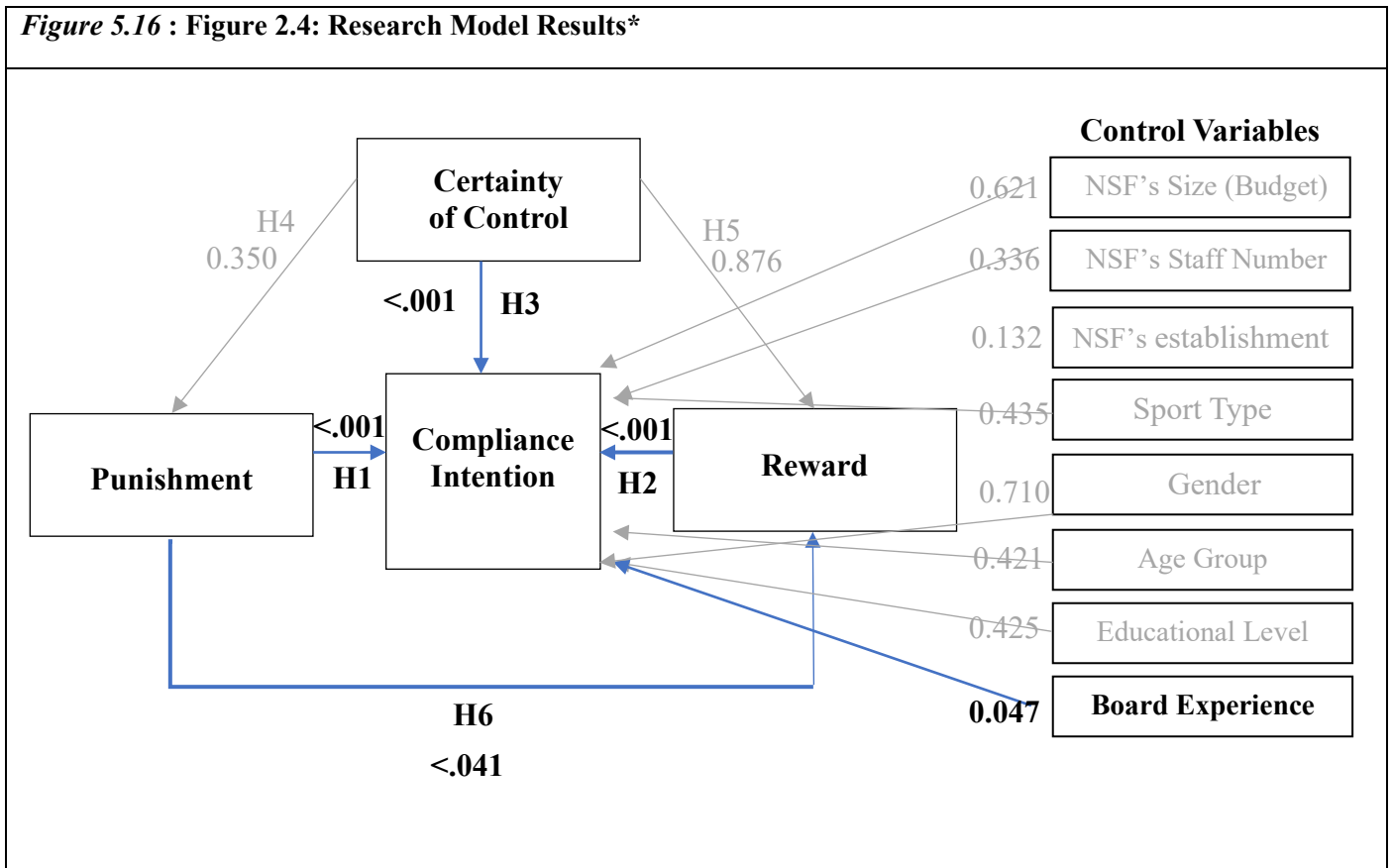
Hypothesis and variables in bold were accepted and in grey fonts were rejected.

Overall, the primary findings of the study can be summarised as follows:

- The intention to comply increases as the certainty of control increases. This suggests that NSFs are more likely to comply when they feel they are being monitored and/or held accountable, regardless of the presence of outcome control measures in the form of reward or punishment. However, the impact of control certainty in the form of monitoring diminishes as rewards and/or punishments are introduced.

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- In the absence of any monitoring threat, when used separately, the threat of punishment and the incentive of reward yield the same level of compliance intention. This implies that, without external monitoring, compliance motivation is primarily driven by the expected outcomes of behaviour rather than by externally imposed measures used to guide behaviour to achieve desirable outcomes.

- When certainty of control is present, the threat of punishment (without reward) leads to a higher compliance intention than when certainty of control and the incentive of reward (without punishment) are present. This indicates that the fear of negative consequences is a more effective motivator for compliance than the promise of positive outcomes.

- When both the threat of punishment and the incentive of reward are introduced, the intention to comply remains almost the same, regardless of the level of the threat of monitoring (certainty of control). This suggests that using both reinforcing and dissuading outcome controls can effectively motivate compliance, and the need for external control is significantly reduced.

In summary, the research underscores the importance of control and accountability in promoting compliance within NSFs. It also highlights the nuanced interplay between reward and punishment as motivators for compliance, depending on the presence or absence of external monitoring mechanisms. Figure 5.17 replicated below provides graphical support for these findings.

Figure 5.17: Plot of Compliance Intention by Group and Scenario (Summary of Results)

Source: Calculations in SPSS

Furthermore, the research has unveiled an inverse relationship between the length of board membership and the willingness of board members to adhere to the provisions of a Code. Generally, as board members' tenure on the National Sports Federation (NSF) board reaches the maximum acceptable limit, their propensity to comply with the Code declines.

7.3   Research Contributions

This section presents the contributions of the current study. There are four forms of contribution. These are theoretical, methodological, and empirical contributions, as well as the practical policy implications of this study.

7.3.1 Theoretical contributions

The "stick and carrot" concept has been widely studied in research, particularly in the fields of psychology, organisational behaviour, and economics, but predominantly in the area of information security.

In the context of organisational behaviour and management, numerous studies have examined the effectiveness of different types of rewards and punishments for promoting compliance (Arni et al., 2012; Filmus, 2015; Mendoza & Wielhouwer, 2015; Mensi-Klarbach et al., 2021; e.g. Fehr & Schmidt, 2007). In the field of economics, the "stick and carrot" approach is often used to promote compliance with tax laws and regulations (e.g. Andreoni et al., 2003; Cowell, 2004; Fehr & Schmidt, 2007; Slager & Chapple, 2016). In the area of information security (from where this study was inspired), research has examined the effectiveness of punishment and reward strategies for promoting compliance with security policies primarily in corporate organisations (e.g. Chen et al., 2012; Fehr & Schmidt, 2007; Liang et al., 2013; Liu et al., 2022).

In the area of governance (not exclusively in the context of sport), studies that investigate the effectiveness of reward mechanisms in promoting compliance with governance codes are still relatively scarce, if not non-existent. In the context of good governance in the area of sport in particular, to the best of the author's knowledge, no prior study has compared how the strategies of punishment ("stick") and reward ("carrot") on the one hand, with different levels of compliance certainty (with or without control) on the other, influence NSFs' compliance intention with a code of good governance (Code) that is issued by a hierarchically superior organisation such as a national sport organisation/agency/ministry, which usually funds NSFs.

As such, the first theoretical contribution of this study is that it introduces and incorporates both punishment and reward as mechanisms that can be used by the funders of NSFs to promote compliance with good governance principles. By combining both punishment and reward mechanisms into the context of promoting compliance with good governance principles, this study provides a more comprehensive approach to addressing compliance issues. This approach recognises that different agents may respond differently to different types of incentives. For instance, some agents may be more motivated by the possibility of receiving a reward, while others may be more motivated to guide their behaviour to achieve a desired outcomes when the threat of punishment is present.

The second theoretical contribution of this study is that it draws more attention to reward as a plausible strategy in promoting the adoption of good governance principles by NSFs. Drawing from GDT, national sport bodies who are the main funders of NSFs have focused on punishment or sanction as the de facto strategy to promote the adoption of the Codes issued (e.g. in the UK, Belgium, Poland) through the threat of subsidies' reduction for non-compliance. Researchers believe that if a policy violation is properly and promptly detected and punished, future violations can be deterred (e.g. D'Arcy et al., 2009; Straub, 1990). Building on Compliance Theory, this study proposes reward as an alternative strategy for promoting the adoption of good governance principles, even though it may appear counterintuitive that rewards could be offered to encourage compliance with a Code. This study provides further evidence that a reward strategy for promoting compliance with a Code is a plausible strategy and deserves further research.

The GDT can also be linked to this study's third theoretical contribution. As mentioned earlier, the GDT has primarily focused on using punishment or sanction as a mechanism to promote compliance. However, this study takes a step further by empirically testing the joint effect

of punishment and reward on compliance intention in the context of NSFs' adoption of good governance principles. The findings of this study indicate that the simultaneous implementation of severe punishment and high levels of reward has a significant joint effect on compliance intention, resulting in a reduced need for explicit monitoring measures. In essence, when national agencies employ both punishment and reward mechanisms, they can effectively foster compliance with good governance principles without necessarily emphasising the certainty of monitoring as an enforcement mechanism to achieve desired outcomes.

This study highlights the potential power of combining punitive measures and incentivising rewards in driving compliance behaviour. The presence of severe punishment serves as a deterrent, while the provision of substantial rewards acts as positive reinforcement. Together, these two mechanisms create a strong motivational force that encourages compliance among individuals or organisations. This implies that the mere existence of punitive and rewarding mechanisms is sufficient to influence compliance intention, reducing the reliance on demonstrating the certainty of punishment enforcement.

The fourth theoretical contribution of this study is that it further confirms the general axiom of GDT theory that certainty and severity of punishment can deter noncompliance (Becker, 1968). This study's findings confirm that both the severity of punishment and the certainty of control that would ensure enforcement significantly influence the compliance intention of NSFs when it comes to adopting good governance principles. The research demonstrates that the effectiveness of punishment as a strategy for promoting compliance with governance codes is further enhanced when there is a high level of certainty regarding its enforcement. However, it is essential to note at this point that varying the certainty of control (high or low control) and at the same time varying the level of punishment (no or severe punishment) did not yield statistically significant results. A

possible explanation for this contradiction could be that under current practices, with control taken as granted (i.e. it is certain that CSO will monitor /audit for compliance with the Code) varying the level of control and the level of punishment at the same time did not change the intention to comply. Despite this, the study still offers valuable evidence supporting the notion that punishment can be an effective tool for fostering compliance with governance codes, especially when there is a strong belief that punishment will indeed be enforced. These findings underscore the importance of implementing appropriate punishments for non-compliance and ensuring a high level of certainty surrounding their enforcement. This combination creates a deterrent effect and reinforces the intention of NSFs to adhere to good governance principles.

On the other hand, the study suggests that the presence of a high reward in combination with certainty of control does not seem to have the same level of impact on compliance intention. While rewards may serve as positive reinforcement, they may not be as compelling as severe punishment's threat in driving compliance behaviour. The research results align with the principles of GDT, which posit that the certainty and severity of punishment play a pivotal role in deterring noncompliance. Moreover, the research results also substantiate the notion that the provision of rewards can effectively motivate compliance behaviour. In essence, this study contributes to the existing body of knowledge on GDT and extends it by examining the interaction effect between punishment and reward. The empirical evidence presented in this study demonstrates that both mechanisms can be employed in tandem to promote compliance with good governance principles in NSFs. A finding that aligns with Trevino et al.'s (1999, p.143) comment that *'people do what's rewarded and avoid what's punished'*. This study enriches our understanding of the dynamics at play within the GDT framework. It offers valuable insights for policymakers and organisations seeking to enhance compliance levels in the context of NSFs.

7.3.2   Methodological contributions

The methodology employed in this research contributes significantly to compliance with governance codes, extending beyond the realm of sport. There are four novel aspects of the methodology employed in this research:

a) Deployment of Hypothetical Scenario Technique: The experiment design involves multiple scenarios per respondent, employing a theoretical representation of NSFs rather than participants' own organisations (as described in Sections 4.1.2). This approach, previously unexplored in the context of compliance with an external requirement (Code) that prescribes principles for best governance in the sports domain, enables a unique exploration of compliance behaviours, free from the potential bias respondents may exhibit when providing feedback on their own organizations. These responses were then compared with those offered by the same participants who were also asked to provide feedback on the compliance intention and governance practices of their own organisations.

b) Introduction of Reward for Compliance: This study introduced the novel concept of rewarding compliance with a Code, complementing the widely adopted approach of punishing non-compliance. By considering both reward and punishment mechanisms, this research expanded our understanding of motivational factors that influence compliance behaviour within the context of good governance.

c) Incorporation of Control exhibited in the form of an audit: The methodology of this research goes a step further by introducing the notion of control, separating the respondents into two equal groups. One group is subjected to scrutiny to check if they have complied with the Code, while the other group remains unchecked. This inclusion

of control allowed for a comparative analysis of compliance intention and shed light on the influence of audit control in promoting adherence to good governance principles.

d) Engagement of actual Board Members: Notably, the questionnaire was administered to board members of organisations, specifically NSFs, in their natural decision-making setting, i.e., during a board meeting. By capturing their responses in a real-world context, the study ensures greater ecological validity and offers insights into compliance intention within the operational dynamics of NSFs.

These methodological advancements contribute to the literature by introducing innovative elements, such as hypothetical scenarios, incorporating rewards and control, and including actual board members' perspectives of their own organisations' compliance intentions and governance practices. These novel aspects enhance the study's validity and extend our understanding of compliance behaviours within the context of externally required governance codes.

7.3.3 Empirical contributions

The empirical contributions of this research are concerned with findings derived from the empirical investigation of NSFs' compliance with a Code prescribing best governance principles, and which advance our understanding of their compliance behaviour by particularly shedding light into the factors that shape their compliance intentions. Specifically, compliance with externally imposed governance codes is a complex and multidimensional phenomenon, encompassing, among others, individuals' intentions to adhere to the prescribed principles. Yet, no research, to the author's knowledge, has focused on systematically measuring these intentions within the specific context of NSFs. Thus, developing and validating a comprehensive and reliable scale to measure NSF's compliance propensity, presents this study's perhaps most significant empirical contribution to the field of sport governance.

As a result, such, this study has contributed to the advancement of measurement theory by providing a refined and validated scale specifically tailored to measure the intentions of NSFs to comply with good governance principles. The scale development process in this study was guided by established psychometric principles (Cheung et al., 2023) to ensure the reliability, validity, and sensitivity of the newly developed scale in capturing compliance intentions. These psychometric principles were followed rigorously to enhance the quality and robustness of the measurement tool.

Secondly, the dataset generated in this study is novel and specifically tailored to the context of compliance with good governance principles within NSFs. What sets this study apart is the unique approach of collecting data directly from board members of NSFs in their natural setting, namely during actual board meetings. This methodology provides an unprecedented perspective on compliance behaviours within NSFs, contributing to the limited body of literature in this area. To the best of the author's knowledge, this study represents the first example in the field of sport governance, and possibly in the broader realm of governance, where actual board members from a high number of NSFs have participated in a questionnaire survey conducted during their board meetings [61], i.e. the very setting where critical decisions regarding their organisations are made. This distinctive approach adds substantial value to the empirical contributions of this study as responses collected are expected to be more reliable, and of better quality since board members are replying in a real word context and exhibit more authentic and natural behaviour during board meetings, as they are engaged in their regular duties and responsibilities. By engaging board members within their organisational context, this study captures their insights, experiences, and perspectives on compliance with good governance principles. This level of direct involvement and

[61] For example, Tacon and Walters (2016) surveyed the chairpersons of 4 UK National Governing Boards (NGBs) but were physically present in the meetings of only one NGB.

proximity to decision-making processes strengthens the validity and authenticity of the data collected. The resulting dataset not only enhances the robustness of the study's findings but also provides a rich source of information for further analysis and exploration of compliance behaviours within NSFs.

Thirdly, the large sample size of this research increases the statistical power (Field et al., 2012) and generalisability of the findings. The substantial number of participants involved in this study allows for a more representative understanding of compliance behaviours within NSFs, strengthening the validity and reliability of the conclusions drawn.

Fourthly, the comprehensive nature of the data collected, encompassing demographic characteristics, organisational factors, and compliance scenarios, offered a rich dataset for analysis. This comprehensive approach enabled a thorough investigation of the factors influencing individuals' intention to comply, providing valuable insights into the complexities of compliance within NSFs.

In summary, this study has made significant empirical contributions by developing and validating a tailored scale, generating a novel dataset, including a large sample size, and employing a comprehensive approach to analysing compliance behaviours within NSFs. These contributions enhance our understanding of compliance with governance codes in NSFs and provide both a foundation for further research and advancements in the field of sport governance and governance in general.

7.3.4 Policy and practical implications of the study

Compliance with governance codes is crucial for ensuring transparency, accountability, democracy, and social responsibility within NSFs. It safeguards the integrity of sports organisations and enhances public trust and confidence in the sports industry. Therefore, it is essential to bridge the

gap between research and practice and translate the research findings into practical implications that can inform policy development, decision-making processes, and the implementation of effective governance mechanisms in real-world settings. This study's policy and practical implications summarise into actionable recommendations for policymakers, governing bodies, and stakeholders involved in promoting compliance with governance principles within NSFs. This study's empirical investigation has provided valuable insights into the factors that influence compliance intentions and shed light on the effectiveness of various compliance-enhancing strategies. The aim is to identify the optimal control mix for encouraging NSFs' adherence to principles of good governance. By illuminating key aspects such as the effectiveness of punishment measures; the circumstances under which it is important to promote certainty of audit control to ensure compliance; the exploration of the potential of reward mechanisms; and the integration of both punishment and reward strategies; actionable steps arise for enhancing compliance within NSFs.

- Implementation of Deterrent Measures

The findings of this study highlight the effectiveness of the threat of punishment as a preventive strategy to promote compliance with governance principles within NSFs. Policymakers and governing bodies can draw upon this evidence to implement deterrent measures that clearly define and enforce sanctions in the event of non-compliance. For punishment to be an effective deterrent measure the level of punishment should be set at a high level and be threatened to be imposed immediately. By establishing a strong deterrent, oversight organisations in sports can discourage NSFs from engaging in behaviour that violates the governance code.

- Promoting Certainty of Audit Control

The study emphasises the importance of promoting a high level of certainty that audits will take place to ensure compliance and that punishment will be enforced where noncompliance is detected. When individuals perceive a high level of certainty surrounding the enforcement of punishment, it significantly influences their compliance intentions. Policymakers and governing bodies should prioritise creating a transparent and consistent system for monitoring and enforcing compliance. If necessary, policymakers and governing bodies can strengthen the deterrent effect and increase compliance rates by ensuring that individual organisations believe their actions will be effectively monitored and punished.

- Exploration of Reward as an Alternative Strategy

The study also highlights the potential for using reward as an alternative strategy for controlling compliance behaviour within NSFs. While punishment has traditionally been the primary focus, the findings suggest that incorporating reward mechanisms can positively influence compliance intentions. Policymakers and governing bodies should consider implementing rewards to incentivise individuals to adhere to good governance principles. This can include recognition, financial benefits such as increased subsidies, or other forms of positive reinforcement such as additional sports equipment.

- Integration of Punishment and Reward Mechanisms

Based on the interaction effect observed between punishment and reward, policymakers should consider using both mechanisms in conjunction to promote compliance with good governance principles in NSFs. By combining punishment and reward strategies, organisations can create a comprehensive approach to addressing different motivations and behaviours that an NSF may exhibit. This dual approach allows for a more nuanced and effective system for encouraging compliance.

- Reduced Need for Certainty of Enforcement

Interestingly, the study suggests that when both punishment and reward mechanisms are used in tandem, the need for a high level of certainty that audit control will be exercised to ensure enforcement is significantly reduced. This implies that punishment and reward create a more balanced and motivating environment in which individual NSFs are inclined to comply even in the absence of any certainty of audit. Policymakers can take this into account when designing compliance frameworks and allocate resources, accordingly, focusing on a holistic approach that combines both mechanisms rather than solely relying on costly audit exercises to ensure strict enforcement.

- Mode of Governance

Returning to the concepts of governance (section 2.1), one of the questions posed pertained to the most effective mode of governance for the adoption of a Code. Treib et al. (2007) introduced four potential modes of governance: coercion, voluntarism, targeting, and framework regulation. In light of the study's findings, targeting emerges as the most suitable governance approach for national agencies to employ in the development of Codes that NSFs will be encouraged to follow.

The use of coercion as a governance approach lacks validity in the context of adopting a code of good governance, as codes are not legally binding instruments. Conversely, the voluntarism approach, while grounded in non-binding instruments, proves overly broad and fails to incorporate the specific principles outlined in the Code. Lastly, framework regulation is deemed insufficient, as it pertains to the self-regulation of entities within a legally binding framework.

As such targeting emerges as the optimal approach grounded in two primary factors. First, the study's results have demonstrated that when a combination of rewards and penalties is utilised, the need for stringent audit control and coercion diminishes. Secondly, targeting strikes a delicate

balance between ensuring compliance with governance codes and NSFs autonomy to operate independently. It acknowledges the distinctive characteristics of each federation, recognising that a one-size-fits-all approach may not be suitable. Instead, it offers the flexibility required to adapt to the specific needs and attributes of each NSF.

By considering these policy and practical implications, policymakers and governing bodies can develop comprehensive strategies that promote compliance with good governance principles in NSFs.

Hence, the optimal approach for policymakers to foster the implementation of good governance policies can be summarised as follows:

1. Codes should take the form of non-binding recommendations (targeting mode of governance) but with precise guidance on the desired outcomes and policy objectives, leaving less room for discretion at the implementation stage.

2. Conducting thorough assessments (i.e., compliance audits) of NSFs) to ensure their adherence to Code principles is crucial. Relying solely on self-regulation is insufficient.

3. To encourage compliance, policymakers should primarily employ a punitive mechanism. However, for this approach to be effective, it should be implemented early on and possess a substantial degree of severity from the outset.

4. In addition to punitive measures, rewards should also be employed to incentivise compliance.

5. Employing a combination of punishment and reward mitigates the need for excessive control through audits in the form of inspection/monitoring visits.

By considering and implementing the policy and practical implications presented in this section, the sports industry can take proactive steps towards strengthening governance structures, promoting ethical behaviour, and ensuring the long-term sustainability of NSFs.

7.4 Study Limitations

While this study has made significant contributions to understanding compliance with governance principles within NSFs, it is important to acknowledge its limitations. These limitations provide opportunities for future research and highlight the boundaries of the current study. The following are some limitations that impinge on this research:

One limitation of this study is the population from which the data was drawn. This has several implications:

a)   The study focused on compliance behaviour within NSFs in Cyprus. As such, local and cultural issues might have affected the way respondents replied to the questionnaire. Therefore, the findings may be influenced by unique contextual factors that may not be generalisable to other settings or regions. However, as Cypriot NSFs are operating within the European Sport Model, are quite active, and follow the recommendations of the respective European and International Federations and governing bodies of their sports, it is not expected that their propensity towards compliance with a governance Code would be substantially different from that of their European (at least) counterparts.

b)   As NSFs in Cyprus are accustomed to being audited for compliance by CSO for the funding they receive, board members that were allocated to the low (no)-control scenario might still have felt and responded as if they would be checked for compliance. This potential carryover effect could have influenced the results related to the interaction of certainty of control and punishment (Hypothesis 4); and the interaction of certainty of

control and reward (Hypothesis 5), both of which were found to be insignificant. However, despite saying this, Hypothesis 3, which tested the significance of the certainty of control, was significant and portrayed the most considerable effect size ($\eta p^2 = 0.179$) among all four hypotheses accepted.

c)   According to the collected data, it appears that the smaller NSFs of Cyprus are underrepresented in the study. However, as the public funding allocated to them is relatively small, improving governance in the bigger NSFs that receive the lion's share of the public funding can be seen as more critical.

A possible threat to the internal validity (i.e. the extent to which a study accurately determines a causal relationship between variables, ruling out alternative explanations) which could apply in all within-subject designs, is maybe another limitation. However, following the experimental design, as suggested by Chen et al. (2012), various precautions were taken to minimise the threat by assigning the participants to two groups; each participant was presented with four scenarios; the order of the scenarios was altered using the concept of a Latin square design to create a Latin square design matrix; the respondents were asked to reply to the scenarios as if they were members of a theoretical NSF, i.e. not their own, while manipulation check questions were also included in the questionnaire.

In addition, since data were collected in a cross-sectional manner, capturing data at a specific point in time, could provide room for common method bias. Common method bias refers to the systematic error or bias that may arise when multiple variables in a study are measured using the same method or data source. This can introduce a spurious[62] correlation between variables and

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[62] Spurious correlation refers to a statistical relationship or correlation between two variables that appears to be significant or meaningful but is actually coincidental or non-causal.

affect the validity of the results. To mitigate this common data source problem, manipulation questions were included in the scenarios and presented to the participants to test interaction effects in this study. As these manipulations were successful (see section 4.10.1), it could be safely argued that common method bias may impose a much smaller threat to this study.

The influence of unmeasured factors could also be another limitation of this study. Despite efforts to include relevant variables, there may be other factors not considered in this study that could influence compliance behaviour within NSFs. While the rigorous scale development process was based on DeVellis (2012) and Boateng et al. (2018), and the evaluation by the target population and experts aimed to include relevant variables, the possibility of unmeasured factors should still be acknowledged.

Moreover, compliance *intentions* instead of *actual* behaviours were measured. Although studying intention rather than actual behaviour is commonly used in such psychometric tests and has been extensively used in other research areas as well, such as in information security literature, it is still a potential limitation of the current study. Intentions may not always align with actual behaviours, and participants may not fully carry out their stated intentions to comply with good governance principles; in this instance, to comply with good governance principles as presented in the Code issued by CSO. Also, respondents could have mixed up scenarios with what is happening in their NSF in terms of complying with the Code and, therefore, might not have revealed their actual personal intentions and behaviours but rather reflected the current situation in their NSF. This is another possible limitation of the current study.

Finally, although various precautions, such as ensuring the anonymity of the survey participants using a hypothetical NSF and scenarios, were taken to prevent potential evaluation apprehension bias, some respondents could still have provided socially desirable responses rather

than their actual thoughts in the survey. To measure the extent to which social desirability bias was an issue in this study, respondents were asked to reply to a set of five social desirability bias questions as suggested by Hays et al. (1989). The results showed that socially desirable responses did not affect the compliance intention of the respondents.

7.5   Future Research Avenues

Within the present thesis, valuable insights into the compliance of NSFs with governance principles have been provided. Nevertheless, there are several avenues for future research that can further expand our understanding and contribute to the advancement of knowledge in this field. These potential research directions encompass theoretical and practical aspects, addressing gaps and emerging areas of interest.

Perhaps the most evident and value-added future research is to conduct a cross-cultural comparison. Cross-cultural comparisons are crucial as culture plays a significant role in shaping in the context of this research governance practices and compliance behaviour. Governance practices, ethical standards, and legal frameworks can vary significantly across nations, influenced by cultural, social, and institutional factors affecting compliance behaviour in NSFs. By duplicating this research in different countries, researchers can assess whether the findings hold true across different cultural settings, thereby enhancing the generalisability and applicability of the study's conclusions. Comparing compliance practices, enforcement mechanisms, and outcomes can provide valuable insights into the contextual factors that shape compliance behaviour and inform the development of tailored governance strategies.

Additionally, while duplicating this research, further investigation can be conducted to examine how significantly the reward levels interact in different national settings in terms of existing governance compliance and enforcement policies. By systematically varying the reward

levels in the study across multiple contexts, researchers can observe whether the magnitude of rewards significantly impacts compliance behaviour. This analysis can provide insights into whether higher or lower levels of rewards are more effective in promoting compliance, considering the specific cultural, social, and economic factors that influence the perception of rewards.

A second valuable future research avenue could be to undertake longitudinal studies. Longitudinal studies on compliance behaviour can provide valuable insights into how compliance evolves over an extended time period. By tracking changes in compliance intentions, behaviours, and the factors influencing them over time, researchers can uncover trends, identify critical turning points, and assess the long-term effectiveness of governance interventions. This can provide valuable insights into the dynamics of compliance within NSFs and inform the development of sustainable compliance strategies.

A third area that calls for further research is the role of rewards in promoting compliance. This thesis introduced the concept of rewarding compliance alongside punishment. Future research can conduct an action research type of study to investigate further how a new remunerative reward policy could affect compliance with governance codes in NSFs. Action research can help bridge the gap between theory and practice (Cohen et al., 2000) by actively involving stakeholders, generating practical insights, and fostering continuous improvement. It promotes a collaborative and evidence-based approach to problem-solving and can lead to more effective interventions to address compliance issues. This can provide insights into the motivational factors influencing compliance intentions and help policymakers and governing bodies design more comprehensive approaches.

Another important area for investigation is the factors that influence the certainty of audit control. The study emphasises the importance of promoting a high level of certainty regarding the

compliance inspection and the enforcement of punishment if noncompliance is detected. Future research can delve deeper into the factors that contribute to individuals' perception of control and explore strategies to enhance the certainty of enforcement. This can involve examining the role of transparency, accountability mechanisms, and communication channels in strengthening the perception of control and ensuring consistent compliance.

Further exploration of the effectiveness of punishment measures is also warranted. While this study highlights the effectiveness of punishment as a strategy to promote compliance, there is room for further research to investigate the specific types and levels of punishment that are most effective in different contexts. This can help policymakers and governing bodies refine their approaches to deter non-compliance and develop targeted strategies that promote compliance.

Future research can also further explore the intention of NSFs to comply with good governance principles through the lens of qualitative research methods. While quantitative research provides valuable insights into the patterns and correlations between variables, qualitative research can delve into the underlying motivations, perspectives, and experiences of NSFs and their stakeholders. By employing qualitative methods such as interviews, focus groups, and document analysis, researchers can investigate the factors that drive NSFs to adhere to good governance principles. Additionally, qualitative research can shed light on the influence of punishment and reward mechanisms implemented by funders in shaping the intentions of NSFs in a low (i.e. virtually no) or high-control environment. Through this approach, future studies can offer a comprehensive understanding of the dynamics between NSFs, funders, and compliance with good governance principles, providing nuanced insights that complement and enrich quantitative findings. A comparison of the results of such a study with the results of the current research would be an interesting comparison. This comparative analysis would provide a holistic

understanding of the topic by integrating quantitative and qualitative perspectives. By triangulating the data obtained from these different research approaches, researchers can gain a more comprehensive and nuanced understanding of the factors influencing NSF compliance with good governance principles. This would enable a deeper exploration of the underlying motivations, experiences, and perspectives of NSFs and their stakeholders in relation to punishment and reward mechanisms, ultimately enhancing our knowledge of how these factors impact governance practices.

By exploring these future research avenues, researchers can continue to advance our understanding of the field of compliance with governance principles in NSFs. The findings from such studies can inform policy development, guide practical interventions, and contribute to the overall improvement of governance practices in the sports industry.

7.6   Concluding Section

This chapter provided an overview of the research work undertaken by presenting the rationale and methodology used. It further presented this research's contributions of by analysing the methodological, theoretical, and empirical contributions. Additionally, the study presented the policy and practical implications, providing policymakers with a realistic and plausible strategy to encourage the adoption of a governance code by NSFs. It further discussed the study's limitations before proceeding to propose future research avenues to advance our knowledge in the area of compliance with governance principles within NSFs.

Chapter 8

Afterword

Embarking on this scholarly endeavour has been a profoundly enriching and transformative journey. As I reflect upon the path traversed, I am filled with a profound sense of growth, both academically and personally.

From the very inception of this research, there was excitement, a spark of curiosity that ignited my passion for exploring the intricate landscape of sports governance. The opportunity to delve into the nuanced world of NSFs, examining their compliance intentions and the factors at play, was both a privilege and a challenge I embraced wholeheartedly.

The journey was marked by rigorous research, countless hours of data collection and analysis, and meticulous scrutiny of existing literature. Along the way, I encountered unexpected twists and turns, each presenting an opportunity to learn and adapt. The complexity of human behaviour within the context of sports governance became increasingly evident, underscoring the need for a multifaceted approach.

One of the most rewarding aspects of this journey was the opportunity to engage with experts, scholars, and stakeholders in the field of sports governance. Their insights and perspectives added depth and nuance to my understanding, and their willingness to share their knowledge was both humbling and inspiring.

Yet, the journey was not without its challenges. There were moments of self-doubt when the vastness of the subject matter seemed overwhelming. There were times when the data presented its own enigma, requiring creative problem-solving and resilience. Through it all, perseverance and determination became my steadfast companions.

As I stand at the culmination of this research, I am struck by the realisation that this journey was not solely about acquiring knowledge. It was a profound exploration of the human spirit, the intricacies of governance, and the pursuit of excellence. It was about questioning assumptions,

challenging conventions, and seeking to contribute meaningfully to the broader discourse on sports governance.

This journey has had, above all, an enduring impact on both my academic and personal development. It has reaffirmed the significance of rigorous inquiry, the value of collaboration, and the imperative of perpetual learning. It has underscored the belief that, in the quest for knowledge, the journey itself holds as much significance as the ultimate destination. It has served as a poignant reminder, echoing the eloquent sentiments of C.P. Cavafy's in his poem "Ithaca," that the journey, replete with its challenges and victories, is the true essence of our pursuit. **Quoting from the original text in Greek: "Σα βγεις στον πηγαιμό για την Ιθάκη, να εύχεσαι να 'ναι μακρύς ο δρόμος, γεμάτος περιπέτειες, γεμάτος γνώσεις".**

As I conclude this chapter of my academic journey, I am filled with gratitude for the opportunities afforded, the lessons learned, and the invaluable experiences gained. This journey has not only enriched my scholarly pursuits, but it has also shaped me as an individual, instilling a deep appreciation for the complexities and potential of the world of sports governance.

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Appendices

Appendix A: Code of Good Governance for the National Sport Federations in the Republic of Cyprus

(unofficial translation)

The following articles are intended to enhance transparency and thereby enable those concerned to monitor the internal operation of the Federations.

1. Strategic Plan

Article 1.1

The Federation draws up a perennial strategic plan, based structurally on the strategic planning manual of the Cyprus Sports Organisation (CSO) (in force since 1.1.2019).

Article 1.2

The role of the Board of Directors (B.D.) is to develop a responsible strategy that will safeguard the perennial well-being of the organisation through reasoned and realistic financial planning, and then to submit it for approval to the General Assembly (G.A.).

> It is a well-known fact that the human resources of the Federations are limited. Therefore, the B.D. may carry out tasks of an operational nature, such as financial, legal, communication, and sports technical tasks. This necessity, however, should not be detrimental to the primary role of the B.D., which always is the development of a strategy which comprises the following important elements: the general vision and mission of the federation, the procedures governing its operation, the relationships between the administration bodies and their responsibilities.

Article 1.3

This project focuses on the desired results and not on the procedures to be used. The procedures are designed by the managing directorate, in cooperation with the respective directorates of the Cyprus Sports Organisation (CSO) and the Cyprus Olympic Committee (COC).

Article 1.4

The strategic plan is subject to critical evaluation to ensure that it meets the main challenges of the Federation, and is drawn up in the light of the desired results rather than individual activities.

Article 1.5

The strategic plan provides information on the risks and unforeseeable factors facing the Federation, as well as the ways it uses to control and avoid such risks (see Dimension 'Accountability & Control' / Article 10.3).

2. Contacting & Updating information by the Board of Directors

Article 2.1

The Federation maintains its own website on which it publishes the following:

1. Documents relating to its operation such as its:
   - i. articles,
   - ii. organisation,
   - iii. sports rules
   - iv most recent internal rules of procedure (where applicable) and
   - v. its perennial strategic plan.

2. General information for transparency, updating and communication:
   - i. General e-mail address
   - ii. Contact details, areas of responsibility and personal details of:
     - i. Members of the B.D. (including the duration of their term of office, its start and end dates, and the number of previous terms served).
     - ii. Administrative Committees
     - iii. External partners and consultants
     - iv. Other Personnel

Usually, external partners and consultants are considered to be those who have no direct links to the organisation or disciplinary control of sports, and are considered independent of objective external observers (e.g., Lawyers, Accountants, Sports Advisors/Organizational Consultants, Researchers and others). The presence of external partners and consultants in the Sports Federations of Cyprus is not unusual practice in connection with the identified needs, and should be credited positively by the Boards of Directors of the organizations. Naturally, the presence of external partners and consultants, as described in this paragraph, creates potential dangers of conflict of interest (see Dimension 'Accountability & Control': Article 10.2 on how this is controlled and treated).

3. Publishes basic information on its member associations such as
   - i. Number of member associations (and/or athletes)
   - ii. Website, email, address and contact telephone numbers.

Access to these documents should be easy and possible to all.

Article 2.2

Each year, the B.D. provides the General Assembly (G.A.) with an annual overview of the other positions/orders held by each member of the B.D., and all other relevant biographical information. This information is also contained in the annual report as well as information relating to external partners/advisers.

3. Practical & Annual Reports of Organisations

Article 3.1

The Federation publishes the updated agenda on its official website well before the convening of the General Assembly (G.A.). This includes the updated items on the agenda together with the relevant explanation, and a list of topics to be discussed, and items to be chosen.

Article 3.2

The Federation publishes on its official website the minutes of the G.A., which must contain a detailed summary of the G.A.'s discussions and the votes which approve them.

Article 3.3

The minutes of the G.A. are sent via the e-mail address of the Federation – at the latest within two weeks - to the member associations and other internal interested parties.

> While posting the minutes on the official website of the Federation is considered in itself a necessary practice of transparency, it also ensures that by communication of the minutes (by e-mail) the internal interested parties have access to information of any decisions made by the General Assembly.

Article 3.4

In the event that the articles of a Federation provide for updating of the minutes and/or the results of votes by the G.A., their posting on the official website of the Federation shall be designated as 'draft'.

Article 3.5

The Federation publishes a public version of the minutes of its B.D. meetings on its official website (except in cases where full transparency is not appropriate for reasons of privacy or discretion).

Article 3.6

The minutes, which must be approved by the Board of Directors, contain a summary of the Board's discussions and list its decisions.

> In the context of best transparency practice, the minutes of the B.D. should include the minutes of the various internal committees of the Federation approved by the B.D. .

Article 3.7

While access to these documents is easy and available to all, the Federation is obliged to distribute these minutes to the member associations within one month of the meeting via e-mail (see Clarification of Article 3.3).

Article 3.8

The Federation prepares and publishes its Annual Report on its official website. This includes audited financial statements and reports of the internal committees. This Report gives a true and reliable picture of the financial state of the Federation and contains information on remuneration received by members of the B.D. for the voluntary services they provide, including any benefits, in an anonymous or specific form (see: Dimension 'Accountability & Control', Article 8.3).

> Membership of the Board of Directors is honorary and unpaid. When members of the B.D. operate outside their permanent place of residence to do work for the Federation, allowances may be paid for travel, subsistence, maintenance and benefit.

Article 3.9

The Annual Report contains a comprehensive report on the championships, and various events (co)organised by the Federation.

Article 3.10

The Annual Report provides information on how the Federation applies this Code. It also analyses and records the instances in which it has chosen to derogate from the code, giving the reason, in accordance with the principle 'conformity or explanation' / 'if not, why not?').

Dimension:

DEMOCRATIC PROCEDURES

The articles provided for below refer to the internal regulations and standards laid down by the Democratic authorities. In particular, the term refers to the participation of those who are involved in the procedural aspect of the policy in question.

4. General Assembly, Election & Recommendation of the B.D.

Article 4.1

As provided for in the articles, the G.A. represents all members of the Federation, directly or indirectly, and meets at least once a year.

Article 4.2

The G.A. (re-)appoints the members of the B.D. in accordance with strict and transparent procedures, while always maintaining its right to do so.

Article 4.3

The Federation's B.D. establishes an Ethics Committee (see also Article 11) in which members or external partners may participate as decided by the G.A. This Committee is responsible for the implementation of due diligence measures/criteria (Fitness Test) for candidates (before acceptance of their nomination), and also for existing holders of positions on the B.D. to ensure, *inter alia*, that the functionality and application of Articles 4, 9, 10, and 11 of this Code are adhered to. At the end of this procedure, the results are sent to the relevant Cyprus Sports Organisation Ethics Committee which checks and decides (positively or negatively) on the correctness of the results.

Article 4.3.1

The tasks of the Ethics Committee consist mainly in overseeing the process of electing and/or appointing/reappointing the members of the B.D. through the Fitness Test – a standard format to be prepared by the Cyprus Sports Organisation – which carries out amongst other tasks:

(1) certification and verification of the identity of the candidate or elected member of the Board of Directors from reliable sources (e.g., passport, telephone bill, bank statement, etc.);

(2) collection of documents and/or information and/or activities and/or data relating to the actual person concerned or his status, in order to ensure that he has not been convicted of a criminal offence involving a lack of honesty or moral obscenity,

(3) allowing the actual person concerned to declare anything that may be considered relevant to his or her fitness assessment;

(4) notifying the person that, in the event of a refusal to provide documents or related information, he/she may be disciplined by that Federation and/or refused nomination for election to the B.D. of the relevant Federation,

(5) ensuring that the candidate and/or existing member of the B.D. signs the document relating to the Fitness Test.

In the event that all the information examined by the Ethics Committee through the Fitness Test is legal, the Federation accepts (or refuses) the nomination and/or validates (or invalidates) the legality of the position of the existing member of the B.D. Final approval of suitability is made by the respective Cyprus Sports Organisation (CSO) Committee.

Article 4.4

The President ensures that the B.D. and the G.A. have sufficient information on the candidates for election, such as their personal details, other relevant matters and whether the candidate has sufficient time to carry out his/her duties appropriately.

Article 4.5

The Articles of the Federations enable the B.D. to appoint partners and consultants with a view to extending the scope of its abilities. These members do not have the right to vote. At the same time, the Federation looks for a varied composition of the B.D. in terms of gender or age.

Article 4.6

The Federation ensures that provision is made for the required quorum of both the Board of Directors and the G.A. as provided for in its articles.

Article 4.7

The B.D. convenes on a regular basis, as provided for in the Articles. The exact number of meetings depends on the size of the Federation and the specific internal and external circumstances.

5. Term of Office of Members of the Board of Directors

Article 5.1

The term of office of the members of the B.D. is fixed and maintained in order to ensure its continuing renewal. The maximum duration - for which there is also provision in the articles - of consecutive terms of office irrespective of the status of the Board's Directors does not exceed 10 years.

Article 5.1.1

In the event that, at the beginning of the application of this code, the elected members of the Board have already completed 10 years, (or will complete 10 years during their term of office) they may complete their term without, however, their being allowed re-election in the future.

Article 5.2

If a member of the B.D. of one Sports Federations is elected or appointed a member of the B.D. of another Federation, he will be assumed to have resigned automatically from the first post.

Article 5.2.1

In the event that members of the B.D. of one Federation are also members of both the B.D. of another Federation, they must resign from one post within 6 months (from the date of this Code becoming effective).

Article 5.3

In accordance with the articles of the Federation, should for whatever reason the B. D. of the Federation does not complete the term for which it was elected, the new B.D. to be elected shall hold office for the remaining period of the previous Board.

Article 5.4

For new members of the Board of Directors, a standardised procedure for giving introductory information/training is established so that all members have sufficient knowledge about the Federation and its environment.

> The Cyprus Sports Organisation's contribution to this process is considered necessary and obligatory. Therefore, this Organisation intends to prepare an appropriate guide with the relevant contents, which the Federations will be able to adopt with a view to ensuring an equally smooth introductory process for new members of the Federation concerned.

6. Coordinating Member-Associations with Federation Strategy

Article 6.1

The Articles of the Federation ensure that there can be no independent or autonomous (regional) entity defining its own strategy, which differs from that laid down by the G. A. and the B.D. of the Federation.

Article 6.2

The participation of associate members in official events held in Cyprus or abroad is not permitted if they are not approved (see calentari) by the relevant Sports Federation and/or the respective international sports Federations.

> The article specifically concerns official matches for which authorisation/approval is required by the respective Federation. Each Federation should therefore provide a standard form on which the member or athlete can apply to participate in the event. In order to participate in informal competitions, the member or athlete must notify such participation in writing to the respective Federation. In the event of an unjustified refusal by the Federation to hold or participate in matches, the person(s) concerned may apply to the Cyprus Sports Organisation's B.D.

Article 6.3

In accordance with the provisions of its articles, the relevant sports Federation may stop or discontinue for a specific period payment of a grant to a member sports club that has participated in or organised matches without its approval. For the same reason, there is also the possibility of suspending its membership.

7. Active Participation & Support of Internal Interested Parties

Article 7.1

The Federation ensures that its internal interested parties play an active role/participate in the functions of the Federation.

Article 7.2

The perennial strategic plans are drawn up provisionally and after consultation with the main internal interested parties. This procedure provides for the B.D. of the Federation to listen to proposals and suggestions from the internal committees, member associations, coaches and/or athletes. It is necessary to record this procedure in the articles.

Article 7.3

The Federation provides support for its member associations in the areas of governance, administration and organisation through the exchange of information.

> The provision of support to member associations in the afore-mentioned areas adds to both the strengthening of the democratic procedures and the wider social responsibility of the Federation (see: Dimension 'Social Responsibility'). In this context, options include the organisation of workshops, the provision of personal advisors, administrative support and the sharing of good practice through international experience. These types of support are recorded in the Federation's Annual Report.

Dimension:

LOGO & CONTROL

The proposed articles which follow are intended to prevent the concentration of powers and ensure that the decision-making process is credible and not unduly influenced.

8. Obligations & Duties of Members of the B.D.

Article 8.1

All members of the Board of Directors understand their legal obligations and duties, as expressly documented in the Articles of the Federation.

Article 8.2

The B.D. is motivated by a duty of accountability to interested parties (e.g., member associations, athletes, coaches) and the various other important partners through an organised communication framework (see: 'Transparency' Dimension: 2. Access & Communication).

Article 8.3

The G.A. appoints an external, independent auditor as recommended by the B.D. The main task of the external auditor is to carry out an audit of the financial statements based on international financial reporting standards.

Article 8.4

The Federation, through its articles and/or internal rules of procedure, clearly defines and fulfils the role, duties and responsibilities of the members of the B.D.

Article 8.5

In Federations where there is a managing director, he/she is not an official member of the B.D. There is a laid down declaration of delegation of responsibilities that clearly sets out the limits of his/her authority and describes his/her freedom or limitations on decision-making.

Article 8.6

The B.D. has sufficient scope to carry out its tasks independently. The B.D. has a general supervisory role (see too, Dimension 'Transparency': Article 1.3) without being involved in individual and specific decisions except in very special cases.

9. Conflicts of Interest

Article 9.1

A policy on conflict of interest is included in the Articles of the Federation.

Article 9.2

The B.D. keeps a register of interests which ensures that potential and/or existing conflicts of interest are recorded. This register is included in the Federation's Annual Report.

Article 9.3

The conflict of interest policy does not authorise the Federation's B.D. to make employment contracts for independent services, work, supplies or any other contracts made for financial consideration, with members of the B.D., employees and technical advisers of the Federation, their wives, children, parents and siblings or with legal persons with whom the abovementioned persons operate.

> It is important to be aware that it is usual for there to be conflicts of interest especially in the realm of such a small state (in population) as Cyprus. The apparent existence of a conflict of interest alone should not and is not to be considered misconduct. It is important, however, to judge these conflicts of interest correctly. The rationale behind this is the recording of any form of conflict of interest (actual, apparent or potential) in order to ensure maximum transparency and avoid undesirable situations (hence there is the need for a register of interests).

10. Control, Avoidance & Perception of Risks

Article 10.1

The Federation has an Internal Compliance Committee appointed by the G.A. or the B.D., depending on what is provided for in the articles..

> The committee verifies whether funds have been used in accordance with the budget, whether audit and accountability procedures have been followed, whether (long-term) financial stability is ensured and whether the funds have been used effectively. It is important to point out that this Committee is the link between the Federation and the independent external auditor (see Article 8.3).

Article 10.2

Risk control is part of the B.D.'s (defined) agenda. This assesses the possibility and effect of all potential factors and ensures that appropriate strategies are developed and used for the restriction or removal of threats. Current strategies are reviewed regularly.

> The involvement of the C.S.O. in these procedures is considered necessary and decisive. Therefore, this Organisation intends to prepare the relevant guide with the proposed content, which the Federations will be able to adopt with a view to implementing a standardised and simple process of identification and control of threats.

11. Code of Conduct & Complaints Policy

Article 11.1

The B.D. establishes a code of conduct, informs the G.A. of its existence, and issues it to the members of the B.D., the administration and the staff, after these have first accepted and signed it. (see: travel expenses, gifts, *et al.*).

Article 11.2

The B.D. establishes a policy on the submission of complaints, which respects confidentiality and contains clear guidelines for its use (regarding athletes, coaches, referees, administrative staff, volunteers, parents of athletes, *et al.*)

> The advice of the C.S.O. in these processes is considered necessary and obligatory. Therefore, this Organisation intends to prepare a standard Code of Conduct as well as a standard form for submission of complaints. The Federations will be able to adopt and implement these in their organisations.

12. Infringement and non-compliance

Article 12.1

This Code will be read in conjunction with the Federations' Standard Procedures Manual.

Article 12.2

Infringement and/or non-compliance gives the right to the B.D. of the CSO to stop state sponsorship entirely or in part based on the principle of proportionality between welfare and infringement or non-compliance (see also Article 3.10).

Dimension:

SOCIAL RESPONSIBILITY

The following articles concern the practical assumption of responsibility regarding internal and external interested parties.

13. Sporting Health

Article 13.1

The Federation implements specific objectives and actions to promote healthy sport. These respect ethical regulations in accordance with current provisions.

Article 13.2

The Federation is obliged to incorporate in its articles the regulations and decisions of the International Olympic Committee on doping.

Article 13.3

The Federation applies disciplinary rules for dealing with pre-scheduled events. These include: (1) prohibiting any member of the Federation from betting on leagues and competitions and/or events that may take place directly or indirectly, and banning the disclosure of any confidential information which may reasonably be expected to be used in the field of betting, (2) requiring any member of the Federation to report to the organisation any suspicion of undue influence on events and/or matches, (3) evolving a process of sanctions for any infringement of the above rules.

14.Socio-environmental Care

Article 14.1

The Federation implements a policy of social responsibility, which focuses on social matters, environmental issues, and/or care for the local community in which the organisation is (co)scheduling sporting events.

> There is no doubt that sports organisations have an outstanding potential to motivate, inspire and involve a large proportion of people who either participate in or attend sporting fixtures. Tree planting, blood donation and fundraising are just some of the activities that the Federations (and their member-associations) are able to organise. This shows both the strength, as well as the ideals and value of sport.

15.Education & Collaboration

Article 15.1

The Federation implements and/or follows prescribed measures (1) for athletes and their coaches, referees and relatives (2) post-athletic care (3) twin careers.

Article 15.2

The Federation maintains current cooperation with academies and/or scientific corporations in order to promote and publicise sport by making use of scientific programmes and the participation of specialist volunteers.

Appendix B: Questionnaire - Scenarios and Instrument

Invitation to participate in the research for my Ph.D. thesis.

Thank you for considering participating in this research. This information sheet outlines the purpose of the study and provides a description of your involvement and rights as a participant if you agree to take part.

Study title: <u>The Carrot or the Stick? Implementing Good Governance in National Sport Federations</u>

You are being invited to take part in a research study relating to the title above. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

The usefulness of good governance codes is questioned by several officials within the National Sport Federations (NSFs) and there are voices that the autonomy of sports is undermined by it. This study will hopefully, among other things, shed light on the question of which approach is better to be followed by funding organisations such as the Cyprus Sport Organisation in their aim to promote the adoption of the good governance code principles. Will the implementation of the code be more effective if a reward ("carrot") is given for compliance or if a penalty ("stick") is imposed for noncompliance?

To evaluate this, you are invited to reply anonymously to the following questionnaire. Data such as gender, age, level of education, years as a board member with the NSF, and size of the NSF (for guidelines on the size see the questionnaire) will be collected for statistical purposes. The study will focus on volunteer board members of the NSFs. You have been contacted to participate in the study because you are a board member of an NSF in Cyprus.

Completing this questionnaire indicates your approval of processing the data presented for the purpose of this research according to the EU General Data Protection Regulation (GDPR) 2016/679. If you decide to take part, you are still free to withdraw at any time and without giving a reason by just not completing the questionnaire. As the data collection is anonymous there will be no identification as to who has completed the questionnaire. All the information collected from the anonymous questionnaires will be kept strictly confidential and private and will only be handled by the researcher. All data collected/generated will be physically stored securely in my house in paper and/or electronic form. Data in electronic form will be stored in my personal computer which is secured by a password and will be backed up in a cloud environment. Data will be kept for a period of five years after the end of the research and then will be destroyed according to the relevant GDPR rules.

As stated above participation will be through an anonymous questionnaire. The questionnaire includes a mix of questions that you will be requested to record your agreement or disagreement on a scale from 1 - 5. It is estimated that it will take you approximately 15 to 20 minutes to complete the questionnaire. No further information will be requested from you and no

follow-up is possible as the questionnaires are anonymous. There are no perceived risks if you decide to participate in this research. The findings stemming from the questionnaires will be used in my Ph.D. thesis in trying to answer the questions set above. Also, at the end of the study, you will be invited to the presentation of the study's results and a copy of the results and published research will be made available to you if you so wish.

If you wish to take part in the study, please complete the following questionnaire. The research is conducted with the guidance of both UCLan Cyprus and UCLan UK and the school of Sport & Wellbeing. No funding has so far been received for this study by any organisation. The research has been approved by UCLan's Research Governance Unit.

Should you require any further information do not hesitate to contact me. My email address is vkoutsioundas@uclan.ac.uk. If you have any concerns about the way in which the study has been conducted, please contact UCLan's Officer for Ethics (email address: OfficerforEthics@uclan.ac.uk). Thank you for taking the time to read the information sheet and I look forward to your positive reply.

STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS STUDY
By filling in this questionnaire I agree with processing personal data for the purpose of this research according to the EU General Data Protection Regulation (GDPR) 2016/679, as laid down above.

INTRO The present survey is divided into three sections.

The first section presents four scenarios, for a **hypothetical National Sport Federation (not your own).**

Please reply to these questions as if you are a **board member of the hypothetical National Sport Federation (not your own)**.

An NSF that does not face any capacity issues such as staff, financial and other resources limitation. The four scenarios differ as to whether there is a reward and/or punishment for the implementation or not of the principles of the Code. However, the questions following each scenario are identical.

The second section consists of the general questions about you and **your National Sport Federation**.

The third section is about governance in your **own National Sport Federation**, not the hypothetical one.

Section One - Based on the following 4 scenarios of a Hypothetical Federation, **not your own** answer the questions that follow. The questions are the same for all 4 scenarios. In the first 4 scenarios, it is assumed that **CSO will assess** whether the Hypothetical Federation has **complied** with the Code. In the next 4 scenarios it is assumed that **CSO will not assess** whether the Hypothetical Federation has complied with the Code.

1. **High Certainty Scenario 1 (High Certainty, Low Reward, Mild Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows well that the Cyprus Sport Organisation (CSO), in order to promote compliance with the Good Governance Code (the Code) it has issued, has a department to monitor and record the degree of compliance with the provisions of the Code through frequent as well as various types of audits. The results of these audits are sent to the Internal Audit Committee of the CSO. The NSF meets every year with the CSO's Internal Audit Committee to discuss Code compliance. During the meeting, NSFs who have **complied** with the Code will be **orally praised** while those who **have not**, partially or wholly, will be **orally censured.**

2. **High Certainty Scenario 2 (High Certainty, Low Reward, Severe Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows well that the Cyprus Sport Organisation (CSO), in order to promote compliance with the Good Governance Code (the Code) it has issued, has a department to monitor and record the degree of compliance with the provisions of the Code through frequent as well as various types of audits. The results of these audits are sent to the Internal Audit Committee of the CSO. The NSF meets every year with the CSO's Internal Audit Committee to discuss Code compliance. During the meeting, NSFs who have **complied** with the Code will be **orally praised**. NSFs that **have not**, partially or wholly, **adopted** the Code will be **orally censured and their next year's funding from the CSO will be reduced** between *20% and 33% depending on the degree of compliance with the 55 articles of the Code.*

3. **High Certainty Scenario 3 (High Certainty, High Reward, Mild Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows well that the Cyprus Sport Organisation (CSO), in order to promote compliance with the Good Governance Code (the Code) it has issued, has a department to monitor and record the degree of compliance with the provisions of the Code through frequent as well as various types of audits. The results of these audits are sent to the Internal Audit Committee of the CSO. The NSF meets every year with the CSO's Internal Audit Committee to discuss Code compliance. During the meeting, NSFs who have **complied** with the Code will be *orally praised and their next year's* **funding from the CSO will be** *increased between 20% and 33% depending on the degree of compliance with the 55 articles of the Code.* On the contrary, those NSFs who **have not complied**, partially or wholly, will be **orally censured**.

4. **High Certainty Scenario 4 (High Certainty, High Reward, Severe Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows well that the Cyprus Sport Organisation (CSO), in order to promote compliance with new the Good Governance Code (the Code), has a department to monitor and record the degree of compliance with the provisions of the Code through frequent as well as various types of audits. The results of these audits are sent to the Internal Audit Committee of the CSO. The NSF meets every year with the CSO's Internal Audit Committee to discuss Code compliance. During the meeting, NSFs who have **complied** with the Code will be **orally praised and their next year's funding from the CSO will be increased** between 20% and 33% depending on the degree of compliance with the 55 articles of the Code. NSFs that *have not,* partially or wholly, **adopted** the Code will be **orally censured and their next year's funding from the CSO will be reduced** between 20% and 33% depending on the degree of compliance with the 55 articles of the Code.

5. **Low Certainty Scenario 1 (Low Certainty, Low Reward, Mild Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows that the Cyprus Sport Organisation (CSO) has not established a method to access the extent to which Federations are complying with the provisions of the Code and it is not certain that there will be an assessment. After each assessment (if any) those who have **complied** with the articles of the Code are **orally commented** while those who **have not complied**, partially or wholly, are **orally censured.**

6. **Low Certainty Scenario 2 (Low Certainty, Low Reward, Severe Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows that the Cyprus Sport Organisation (CSO) has not established a method to access the extent to which Federations are complying with the provisions of the Code and it is not certain that there will be an assessment. After each assessment (if any) those NSFs who have **complied** with the articles of the Code are **orally commented**. NSFs that **have not complied**, partially or entirely, with the Code are **orally censured and their next year's funding from the CSO is reduced** between 20% and 33% depending on the degree of compliance with the 55 articles of the Code.

7. **Low Certainty Scenario 3 (Low Certainty, High Reward, Mild Punishment)**
   George is a board member of a hypothetical National Sport Federation (NSF). He knows that the Cyprus Sport Organisation (CSO) has not established a method to access the extent to which Federations are complying with the provisions of the Code and it is not certain that there will be an assessment. After each assessment (if any) those NSFs who have **complied** with the articles of the Code are **orally commented and their next year's funding from the CSO is increased** between 20% and 33% depending on the degree of compliance with the 55 articles of the Code. Those NSFs who **have not complied**, partially or entirely, with the Code are **orally censured.**

8. **Low Certainty Scenario 4 (Low Certainty, High Reward, Severe Punishment)**
George is a board member of a hypothetical National Sport Federation (NSF). He knows that the Cyprus Sport Organisation (CSO) has not established a method to access the extent to which Federations are complying with the provisions of the Code and it is not certain that there will be an assessment. After each assessment, (if any) when they take place, those NSFs who are ***complied*** with the articles of the Code are ***orally commented and their next year's funding from the CSO is increased*** *between 20% and 33% depending on the degree of compliance with the 55 articles of the Code. On the contrary,* NSFs that *have not complied,* partially or entirely, ***with*** the Code are ***orally censured and their next year's funding from the CSO is reduced*** *between 20% and 33% depending on the degree of compliance with the 55 articles of the Code.*

Questions

     Given this hypothetical scenario and assuming you are George – the board member of the hypothetical National Sport Federation - please specify the extent to which you agree or disagree with the following statements (5-point scales: 1 = "strongly disagree," 5 = "strongly agree").

     (This part of the text and questions was repeated for each of the four scenarios presented to each participant):

		Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5
1.	It is possible that the hypothetical National Sport Federation will follow all the articles outlined in the Good Governance Code (Code). **(Compliance Intent 1 or CI1)***					
2.	It is probable that the hypothetical Sport Federation will follow all the articles outlined in the Code. **(CI2)**					
3.	The hypothetical Sport Federation will certainly follow all the articles outlined in the Code. **(CI3)**					
4.	If the hypothetical Sport Federation does not comply -either partly or entirely- with the articles outlined in the Code, the chance to be detected is high. **(Manipulation Check Perceived Certainty 1 or MANI-C1)**					
5.	If the hypothetical Sport Federation does not comply -either partly or entirely- with the articles outlined in the Code, there will be serious consequences. **(Manipulation Check Perceived Punishment Severity or MANI-P)**					
6.	If the hypothetical Sport Federation follows all articles outlined in the Code, the chance to be rewarded is high. **(Manipulation Check Perceived Certainty 2 or MANI-C2)**					
7.	If the hypothetical Sport Federation follows all articles outlined in the Code, it will be rewarded greatly. **(Manipulation Check Perceived Reward Significance or MANI-R)**					

The question dropped in Step 2 of the development was: The hypothetical Sport Federation is likely to follow all the articles outlined in the Code.

Section Two - In this second part, the questions refer to you and your own National Sport Federation.

1. Size of federation based on their annual budget:
    a) €0 - €20.000
    b) €20.001 - €50.000
    c) €50.001 - €100.000
    d) €100.001 - €200,000
    e) €200,000 and up

2. Number of employed staff in your federation:
    a) 0
    b) 1
    c) 2-4
    d) 5+

3. How many years ago was your federation established?
    a) 0 – 5 years
    b) 6 – 15 years
    c) 16 – 30 years
    d) More than 30 years

4. Is your sport
    a) Individual sport
    b) Team Sport
    c) Both but primarily single
    d) Both but primarily team

5. Gender:
    a) Male
    b) Female
    c) Non-binary / third gender

    d) Prefer not to say

6. Age group
    a) 18-23 years old
    b) 24-29 years old
    c) 30-35 years old
    d) 36-41 years old
    e) 42-47 years old
    f) 48-53 years old
    g) 54-59 years old
    h) 60-65 years old
    i) 66-71 years old
    j) 72 years or older

7. Education level:
    a) Primary
    b) Secondary
    c) College
    d) Graduate
    e) Postgraduate
    f) Other ………………………………

8. How many years you have been a board member in your federation?
    a) Less than a year
    b) 1-3 years
    c) 4-6 years
    d) 7-9 years
    e) 10-12 years
    f) 13+ years

Listed below are a few statements about your relationship with others. How much is each statement TRUE of FALSE for you?

		Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5
9.	I am always courteous even to people who are disagreeable. **(Social Desirability Bias 1 or SDB1)**					
10	There have been occasions when I took advantage of someone. **(SDB2)**					
11	I sometimes try to get even rather than forgive and forget. **(SDB3)**					
12	I sometimes feel resentful when I do not get my way. **(SDB4)**					
13	No matter who I'm talking to, I'm always a good listener. **(SDB5)**					

Section Three - In this third part answer the following questions that are related to your **own National Sport Federation, not to the hypothetical** National Sport Federation.

		Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5
1.	Board members in my federation value the importance of having a Code of good governance. **(Governance Culture 1 or GC1)**					
2.	In my federation, a culture exists that promotes principles of good governance. **(GC2)**					
3.	Good governance has traditionally been considered an important value in my federation. **(GC3)**					
4.	Practicing principles of good governance is the accepted way of steering my federation. **(GC4)**					
5.	The overall environment in my federation fosters good governance thinking in all our actions. **(GC5)**					
6.	Principles of good governance is a key norm shared by all board members in my federation. **(GC6)**					
7.	Protecting the integrity of the federation as seen by all its stakeholders is very important in my federation. **(GC7)**					
8.	To accomplish the aims of the federation, board members are willing to take risks of not complying with articles outlined in the Code. **(GC8)***					
9.	CSO has published specific guidelines that describe how federations can apply the articles outlined in the Code. **(Governance Policy 1 or GP1)**					

		Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5
10	CSO has published specific guidelines that describe how federations can apply the articles relating to **Transparency**. **(GP2)**					
11	CSO has published specific guidelines that describe how federations can apply the articles relating to **Democratic Processes**. **(GP3)**					
12	CSO has published specific guidelines that describe how federations can apply the articles relating to **Accountability**. **(GP4)**					
13	CSO has published specific guidelines that describe how federations can apply the articles relating to **Societal Responsibility**. **(GP5)**					
14	My federation provides training to help board members become aware of the principles of the Code. **(Governance Training 1 or GT1)**					
15	My federation informs board members with regards to the Code. **(GT2)**					
16	My federation informs board members about CSO's expectations in implementing the Code. **(GT3)**					
17	In my federation, board members are briefed on the consequences of not complying with the Code. **(GT4)**					
18	CSO will monitor the compliance of federations with the principles and articles as outlined in the Code. **(Governance Monitoring 1 or GM1)**					
19	I believe that CSO will consider the self-assessment checklist related to the compliance with the Code that is submitted annually by my federation. **(GM2)**					

		Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5
20	I believe that CSO will audit the degree of the federation's compliance with the Code. **(GM3)**					
21	My federation has the knowledge to implement the Code. **(Governance Capacity 1 or GCp1)****					
22	My federation has the human resources to comply with the Code. **(GCp2)****					
23	I believe that CSO should provide more training to the federations for the implementing the Code. **(GCp3)***					

* Item dropped during the item reduction analysis. ** Item dropped during the extraction of factors

Appendix C: Descriptive statistics of the measurements used in the study

Descriptive Statistics of Scenarios Variables

Group 1 with Control and Group 2 No Control

	High Control						Low Control					
	N					Std.	N					Std.
	Valid	Missing	Mean	Median	Mode	Deviation	Valid	Missing	Mean	Median	Mode	Deviation
NRNP_1	112	0	3.58	4.00	4	1.088	111	0	3.55	4.00	4	1.134
NRNP_2	112	0	3.09	3.00	4	1.103	111	0	2.78	2.00	2	1.139
NRNP_3	112	0	2.73	3.00	2	1.155	111	0	2.54	2.00	2	1.134
NRNP_4	112	0	3.60	4.00	4	1.000	111	0	3.37	4.00	4	1.111
NRNP_5	112	0	2.97	3.00	2	1.270	111	0	2.70	2.00	2	1.157
NRNP_6	112	0	3.45	4.00	4	1.056	111	0	3.11	3.00	4	1.139
NRNP_7	112	0	3.32	3.00	4	1.202	111	0	3.07	3.00	4	1.256
NRSP_1	112	0	3.47	4.00	4	1.057	111	0	3.41	4.00	4	1.148
NRSP_2	112	0	3.31	4.00	4	1.040	111	0	3.10	3.00	4	1.160
NRSP_3	112	0	3.02	3.00	4	1.178	111	0	3.00	3.00	2[a]	1.191
NRSP_4	112	0	3.72	4.00	4	0.922	111	0	3.49	4.00	4	0.980
NRSP_5	112	0	3.36	4.00	4	1.130	111	0	3.12	3.00	4	1.173
NRSP_6	112	0	3.55	4.00	4	1.097	111	0	3.28	4.00	4	1.146
NRSP_7	112	0	3.46	4.00	4	1.192	111	0	3.24	4.00	4	1.193
HRNP_1	112	0	3.41	4.00	4	1.119	111	0	3.40	4.00	4	1.081
HRNP_2	112	0	3.48	4.00	4	1.115	111	0	3.18	4.00	4	1.169
HRNP_3	112	0	3.07	3.00	4	1.129	111	0	2.92	3.00	2	1.161
HRNP_4	112	0	3.68	4.00	4	0.961	111	0	3.25	4.00	4	1.004
HRNP_5	112	0	3.03	3.00	4	1.204	111	0	2.91	3.00	2	1.156
HRNP_6	112	0	3.67	4.00	4	1.094	111	0	3.49	4.00	4	1.043
HRNP_7	112	0	3.72	4.00	4	1.179	111	0	3.52	4.00	4	1.119

	Valid	Missing	Mean	Median	Mode	Std. Dev.	Valid	Missing	Mean	Median	Mode	Std. Dev.
HRSP_1	112	0	3.40	4.00	4	1.166	111	0	3.27	4.00	4	1.213
HRSP_2	112	0	3.44	4.00	4	1.072	111	0	3.41	4.00	4	1.187
HRSP_3	112	0	3.20	3.50	4	1.177	111	0	3.16	3.00	4	1.187
HRSP_4	112	0	3.66	4.00	4	0.855	111	0	3.59	4.00	4	1.003
HRSP_5	112	0	3.36	4.00	4	1.214	111	0	3.23	4.00	4	1.183
HRSP_6	112	0	3.79	4.00	4	1.017	111	0	3.59	4.00	4	1.156
HRSP_7	112	0	3.78	4.00	4	1.063	111	0	3.59	4.00	4	1.074

a. Multiple modes exist. The smallest value is shown

Source: Calculations in SPSS

Descriptive Statistics of Control Variables

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing				
SIZE	223	0	3.51	4.00	5	1.470
EMPLOYEES	223	0	2.61	3.00	3	1.006
HISTORY	223	0	3.60	4.00	4	0.584
SPORT	223	0	2.08	2.00	1	0.958
GENDER	223	0	1.25	1.00	1	0.583
AGE	223	0	6.34	6.00	6[a]	2.084
EDUCATION	223	0	4.09	4.00	4	0.996
YEARS	223	0	3.44	3.00	2	1.629
SDRS 1	222	1	2.14	2.00	2	1.127
SDRS 2	222	1	3.97	5.00	5	1.378
SDRS 3	222	1	4.04	5.00	5	1.305
SDRS 4	222	1	3.65	4.00	4	1.219
SDRS 5	222	1	2.04	2.00	1	1.199

a. Multiple modes exist. The smallest value is shown

Source: Calculations in SPSS

Descriptive Statistics of Own Federation Variables

	N		Mean	Median	Mode	Std. Deviation
	Valid	Missing	Mean	Median	Mode	Deviation
Governance Culture 1	220	3	3.77	4.00	4	1.041
Governance Culture 2	219	4	3.95	4.00	4	1.015
Governance Culture 3	219	4	3.84	4.00	4	1.074
Governance Culture 4	221	2	3.93	4.00	4	1.022
Governance Culture 5	221	2	3.85	4.00	4	1.033
Governance Culture 6	219	4	3.73	4.00	4	1.039
Governance Culture 7	221	2	4.18	4.00	5	1.027
Governance Culture 8	221	2	2.89	3.00	4	1.203
Governance Policy 1	220	3	3.72	4.00	4	0.941
Governance Policy 2	220	3	3.71	4.00	4	0.904
Governance Policy 3	221	2	3.66	4.00	4	0.928
Governance Policy 4	221	2	3.74	4.00	4	0.915
Governance Policy 5	219	4	3.57	4.00	4	0.962
Governance Training 1	220	3	3.25	4.00	4	1.185
Governance Training 2	218	5	3.60	4.00	4	1.132
Governance Training 3	216	7	3.69	4.00	4	1.100
Governance Training 4	220	3	3.61	4.00	4	1.115
Governance Monitoring 1	218	5	3.59	4.00	4	0.999
Governance Monitoring 2	219	4	3.61	4.00	4	1.009
Governance Monitoring 3	219	4	3.68	4.00	4	1.012
Governance Capacity 1	219	4	3.71	4.00	4	1.081
Governance Capacity 1	221	2	2.99	3.00	4	1.277
Governance Capacity 1	219	4	4.22	4.00	4	0.899

Source: Calculations in SPSS

Appendix D: Composite reliability test and AVE on extracted Components

- Average Variance Extracted (AVE) $\dfrac{\Sigma \lambda^2}{n}$

- Composite Reliability (CR) $\dfrac{(\Sigma \lambda)^2}{(\Sigma_\lambda)^2 + (\Sigma \varepsilon)}$

Component:	Governance Culture	
λ	λ^2	ε
0.683	0.467	0.533
0.810	0.657	0.343
0.840	0.705	0.295
0.819	0.670	0.330
0.885	0.783	0.217
0.848	0.720	0.280
0.766	0.588	0.412
5.652	4.589	2.411
Number of items:		7
AVE:		**0.656**
CR:		**0.930**

Component:	Governance Policy	
λ	λ^2	ε
0.794	0.630	0.370
0.846	0.716	0.284
0.864	0.746	0.254
0.860	0.740	0.260
0.835	0.698	0.302
4.199	3.530	1.470
Number of items:		5
AVE:		**0.706**
CR:		**0.923**

Component:	Social Desirability		
	λ	λ^2	ε
	0.811	0.657	0.343
	0.831	0.690	0.310
	0.810	0.656	0.344
	0.602	0.362	0.638
	0.843	0.711	0.289
	3.896	3.076	1.924
Number of items:			5
AVE:			**0.615**
CR:			**0.888**

Component:	Governance Training		
	λ	λ^2	ε
	0.803	0.644	0.356
	0.836	0.698	0.302
	0.774	0.599	0.401
	0.752	0.566	0.434
	3.165	2.508	1.492
Number of items:			4
AVE:			**0.627**
CR:			**0.870**

Component:	Governance Monitoring		
	λ	λ^2	ε
	0.744	0.554	0.446
	0.795	0.633	0.367
	0.732	0.535	0.465
	2.272	1.723	1.277
Number of items:			3
AVE:			**0.574**
CR:			**0.802**

Component:	Compliance Intention		
	λ	λ^2	ε
	0.904	0.817	0.183
	0.896	0.803	0.197
	1.800	1.621	0.379
Number of items:			2
AVE:			**0.810**
CR:			**0.895**

Appendix E: Heterotrait-Monotrait (HTMT) ratio

	Pearson Correlation																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Compliance_Intent3																										
Compliance_Intent2	0.689																									
R_SDRS_1	0.044	0.095																								
SDRS 2	-0.048	-0.051	0.563																							
SDRS 3	-0.018	0.016	0.548	0.571																						
SDRS 4	-0.061	-0.006	0.382	0.352	0.518																					
R_SDRS_5	0.049	0.054	0.653	0.673	0.582	0.332																				
Governance Culture 1	0.085	0.053	0.056	0.125	0.146	0.123	0.149																			
Governance Culture 2	0.125	0.083	0.058	0.062	0.099	0.120	0.089	0.611																		
Governance Culture 3	0.037	0.030	0.045	0.101	0.166	0.155	0.132	0.583	0.819																	
Governance Culture 4	0.140	0.170	0.036	0.064	0.201	0.189	0.047	0.550	0.752	0.788																
Governance Culture 5	0.024	0.048	0.069	0.159	0.148	0.106	0.159	0.539	0.732	0.790	0.722															
Governance Culture 6	0.047	0.086	0.031	0.066	0.104	0.058	0.089	0.627	0.668	0.692	0.661	0.793														
Governance Culture 7	-0.017	0.076	0.024	0.099	0.133	0.125	0.067	0.554	0.572	0.566	0.548	0.608	0.606													
Governance Policy 1	0.185	0.146	0.069	0.039	0.060	0.079	-0.020	0.218	0.258	0.261	0.297	0.256	0.272	0.287												
Governance Policy 2	0.260	0.158	0.048	-0.023	0.081	0.084	0.004	0.278	0.344	0.334	0.353	0.240	0.262	0.255	0.761											
Governance Policy 3	0.227	0.179	0.136	-0.004	0.153	0.158	0.037	0.333	0.299	0.307	0.325	0.216	0.238	0.239	0.613	0.774										
Governance Policy 4	0.234	0.168	0.108	0.019	0.087	0.185	0.035	0.296	0.268	0.289	0.248	0.198	0.164	0.208	0.621	0.727	0.806									
Governance Policy 5	0.194	0.112	0.128	0.004	0.140	0.160	0.010	0.261	0.198	0.170	0.221	0.066	0.165	0.182	0.539	0.684	0.734	0.774								
Governance Training 1	0.206	0.074	0.133	0.132	0.269	0.238	0.193	0.388	0.434	0.432	0.376	0.371	0.356	0.305	0.202	0.362	0.344	0.414	0.480							
Governance Training 2	0.140	0.042	0.051	0.040	0.186	0.196	0.124	0.395	0.494	0.526	0.437	0.428	0.474	0.371	0.202	0.355	0.346	0.334	0.371	0.764						
Governance Training 3	0.067	-0.010	0.010	0.060	0.219	0.246	0.119	0.448	0.559	0.597	0.504	0.476	0.529	0.389	0.199	0.391	0.370	0.339	0.325	0.693	0.829					
Governance Training 4	0.130	0.038	0.055	0.022	0.182	0.145	0.074	0.383	0.535	0.589	0.448	0.443	0.462	0.346	0.232	0.415	0.441	0.388	0.372	0.674	0.735	0.750				
Governance Monitoring 1	0.300	0.154	-0.014	0.017	0.078	0.042	0.016	0.309	0.343	0.286	0.291	0.194	0.200	0.239	0.364	0.492	0.425	0.481	0.396	0.344	0.353	0.350	0.362			
Governance Monitoring 2	0.193	0.068	-0.047	-0.006	0.074	0.077	-0.016	0.384	0.410	0.311	0.333	0.296	0.330	0.325	0.438	0.482	0.460	0.427	0.376	0.356	0.370	0.362	0.400	0.590		
Governance Monitoring 3	0.244	0.135	0.051	0.005	0.158	0.159	0.000	0.299	0.378	0.295	0.341	0.228	0.248	0.258	0.468	0.604	0.563	0.520	0.535	0.335	0.347	0.368	0.347	0.630	0.706	

Monotrait Correlation

CULT	0.656
POLI	0.703
SDRS	0.517
TRAIN	0.590
MONI	0.741
COMPL	0.689

Hetrotrait Correlations		**HTMT Ratio**
COMPL - SDRS	0.007	0.013
COMPL - CULT	0.071	0.105
COMPL - POLI	0.186	0.268
COMPL - TRAIN	0.086	0.135
COMPL - MONI	0.182	0.255
SDRS - CULT	0.103	0.176
SDRS - POLI	0.071	0.118
SDRS - TRAIN	0.135	0.244
SDRS - MONI	0.040	0.064
CULT - POLI	0.252	0.370
CULT - TRAIN	0.446	0.717
CULT - MONI	0.300	0.430
POLI - TRAIN	0.344	0.534
POLI - MONI	0.469	0.649
TRAIN - MONI	0.358	0.541