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**EXPLORING THE CAPACITY OF CANADIAN INTERCOLLEGIATE
ATHLETICS DEPARTMENTS TO ENGAGE IN ENVIRONMENTALLY
SUSTAINABLE OPERATIONS**

By

Mallory Martin

A Thesis
Submitted to the Faculty of Graduate Studies
Through the Department of Kinesiology
in Partial Fulfillment of the Requirements for
the Degree of Master of Human Kinetics
at the University of Windsor

Windsor, Ontario, Canada

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ATHLETIC DEPARTMENTS TO ENGAGE IN ENVIRONMENTAL
SUSTAINABILITY OPERATIONS**

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January 12, 2021

DECLARATION OF ORIGINALITY

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ABSTRACT

Despite an increased understanding about the role of sports in environmental sustainability (ES), little is known about the nature of ES operations in Canadian university athletics departments. The purpose of this study was to investigate the organizational capacity of Canadian intercollegiate athletics departments to engage in ES efforts. Hall et al.'s (2003) capacity framework was used to explore the capacity (or lack thereof) to pursue ES operations, identifying the challenges within each capacity dimension (i.e., human resources, financial, infrastructure and process capacity, relationships and networking and planning and development). University athletics department personnel most responsible for sustainability initiatives were invited to participate in a semi-structured interview to examine his/her perceptions and experiences of ES within their athletics department operations through the lens of organizational capacity. The findings provide key insights about the current ES action of Canadian athletics departments, the nature of capacity to pursue such action, and factors that could enable ES engagement. In sum, this research can help athletics department leaders and stakeholders understand the challenges of ES implementation, while contributing to organizational capacity theory and Sport and Environmental Sustainability (SES) literature through a focus on environmentally sustainable operations as well as extending the application of Hall et al.'s (2003) model.

Keywords: environmental sustainability, sport, capacity, intercollegiate athletics, Canada, athletic department

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CHAPTER 1

INTRODUCTION

Climate change and environmental concern is undoubtedly one of the most time-sensitive and detrimental threats currently facing humanity (Kellogg, 2019). Scholars conclude that the rate of climate change is faster now than it has ever been, due to human activity (Orr, McCullough, & Ross, 2019). Sustainable interaction with the environment is essential to preserve natural eco-systems and foster life on earth today and for future generations. Globally, every individual, organization and industry, including sport (Casper & Pfahl, 2015b), produce a great demand on nature, which is known as having an ecological footprint. An ecological footprint is the amount of the environment necessary to produce the goods and services needed to support a particular lifestyle (World Wildlife Fund, n.d.).

Not all sport organizations are affected by climate change in the same manner, however it is suggested that sport in all contexts is impacted by the climate crisis to some extent (Orr et al., 2019). There are a range of ways in which changes to the climate effects the sport industry, including: damage to facilities due to increased natural disasters (Booker, 2018), warmer winters causing ski events to be cancelled (Malewitz, 2019), and surfers riding over plastic in the ocean (Crerar, 2013).

While the consequences from climate change effect the sport industry, sport is also a key contributor to the climate issue (Sports for Climate Action, n.d.). Sport organizations produce large amounts of waste, carbon dioxide emissions, and use many resources through their sport operations (i.e., sport events), which result in an extensive ecological footprint. Participants, fans, and consumers of sport are all part of this

footprint as well. Measuring the impact of sport on the environment is a difficult task as scholars and sport leaders have trouble agreeing upon which actions should be given priority as an environmental concern (Orr et al., 2019). It is important to investigate and analyze the current needs and abilities of sport organizations in regard to their environmental sustainability (ES) practices within different sport contexts, to facilitate meaningful change and minimize the negative impacts on the environment. In doing so, one is able to subsequently implement change in the organization to better address capacity needs in regard to environmentally sustainable operations.

Sport organizations are key sites to lead action on climate change. As Schmidt (2006) argues, the global appeal of sport provides a strong foundation to ignite conversations regarding sustainability and begin a sport-environmental movement in hopes of reducing the ecological footprint of sports. Sport is uniquely positioned as an unparalleled social and cultural platform to inspire and educate all stakeholders on the importance of environmentally sustainable activities (e.g., Czula, 1979; Orr et al., 2019). By engaging in sustainable practices, sport organizations can differentiate themselves from competitors, build brand reputation, and encourage volunteers, employees, and fans to participate in meaningful and transformative climate action (Sports for Climate Action, n.d.). Klein (2014) believes that “if the millions of fans who attend an event at the stadium this year and millions more at hundreds of facilities globally, incorporate even a few of the sport organization’s green attributes into their daily lives, we’ll have bought some ecological time” (para. 7).

Orr et al. (2019) suggest that many sport industry leaders agree that climate change is problematic and immediate action is crucial. However, the changes being made

within organizations are scarce or slow to occur due to a lack of time and money, a fear of compromising the sport experience, and little knowledge about ES (Casper, Pfahl, & Mcsherry, 2012). Fortunately, sustainability is becoming a more common practice among sport managers' organizational operations and strategic planning (e.g., Casper & Pfahl, 2015b; Kellison, Trendafilova, & McCullough, 2015; Orr et al., 2019). Many notable sustainability accomplishments within the industry exist under the umbrella of corporate social responsibility (CSR) initiatives as well as specific organizational operations, such as facility design, in a range of sport settings, including: professional sport (e.g., National Hockey League, 2012), international sport mega-events (e.g., Olympics) and intercollegiate sport (e.g., NCAA). Several benefits of environmental stewardship such as long-term financial rewards, positive public image, relationship building opportunities with stakeholders, and ethical decision making (Rogers, 2016) have led to a variety of innovative initiatives across the sport industry including: solar paneled stadiums, use of recycled beverage and food containers, recycling programs, and Leadership in Energy and Environmental Design (LEED) certification (Alton, 2018). Due to the timeliness of the issue of climate change and a need to address aspects of it, organizations, leagues, and teams are vigorously joining the motion for sustainable practices. For example, in December 2019, the Canada Games Council signed onto the United Nations (UN) Sports for Climate Action Framework. Subsequently, Canadian sport organizations will likely undergo increasing pressure to become more sustainable (Canada Games Council, 2019).

Despite this progress, sport organizations often overstate their ES performance to appear as though they are more environmentally cautious than they actually are. This is commonly defined as greenwashing (Orr et al., 2019). It is advised that sport personnel

be wary of token initiatives and *greenwashing* and understand that “being sustainable means more than just recycling and turning off the lights” and know that “systematic change is necessary” in order to reduce the environmental impact of sport (Orr et al., 2019). To date, most initiatives noted within the industry are focused on facility management and resource management. Moving forward, Orr et al. (2019) suggest that greater efforts are necessary in the areas of fan engagement (i.e., environmental education) and environmental externalities, such as impacts of travel or discussing environmental impacts of sponsors.

Concurrently in academia, the novel topic of ES is developing momentum as an emerging sub-discipline in sport management (e.g., McCullough, Pfahl, & Nguyen, 2016; Trendafilova & McCullough, 2018). Scholars have researched a range of topics related to sport and environmental sustainability (SES), including: the motives to adopt green practices (e.g., Babiak & Trendafilova, 2011; Ioakimidis, Stergioulas, & Tripolitsioti 2006; McCullough & Cunningham, 2010; Trendafilova, Babiak, & Heinze, 2013), managerial strategy (e.g., Mallen & Chard, 2011; McCullough et al., 2016), and fan perceptions and engagement (e.g., Casper, Pfahl, & McCullough, 2017; Inoue & Kent, 2012). Other areas of research include: facility management (e.g., Kellison, 2015), sport event sustainability (e.g., Bakos, 2014; Dolf & Teehan, 2015), and climate vulnerability and adaptation (e.g., Dingle & Stewart, 2018; Orr & Inoue, 2019). While some SES research has examined intercollegiate sport, the majority of this research focuses on the National Collegiate Athletic Association (NCAA) in the United States (e.g., Casper et al., 2012; Casper et al., 2017). Findings from these studies are not easily transferable to a Canadian intercollegiate sport context due to unique operational differences such as

financial budget structures and revenue generation, athletic division structure, level of competition, sport event attendance, commercialism and access to human resources (e.g., Casper & Pfahl, 2015a; Danylchuk & Chelladurai, 1999; Danylchuk & Grbac, 2016; Danylchuk & MacLean, 2001; Geiger, 2013). Additionally, within the SES literature little attention is given to understanding the capacities of sport organizations to engage in ES (Casper & Pfahl, 2015b).

To fully understand all of the components of SES (e.g., from planning to implementation and evaluation), there is a need to explore the current organizational capacities (or lack thereof) of sport organizations in order to gauge their potential pursuit of sustainability initiatives and strategies. Organizational capacity is an organization's ability to draw on or deploy a variety of types of organizational capital to produce the outputs and outcomes it desires (Hall et al., 2003). From a Canadian context, Hall et al. (2003) conceptualized an organizational capacity framework that suggests that non-profit organizations should possess capacity in five areas to accomplish the goals of the organization. These areas are: human resources capacity, financial capacity, infrastructure and process capacity, relationships and networking capacity and planning and development capacity. Hall et al.'s (2003) approach has been adopted, applied, and modified in various non-profit sport contexts (e.g., Doherty, Misener, & Cuskelly, 2014; Misener & Doherty, 2009, 2013; Sharpe, 2006; Stevens, 2017; Wicker & Breuer, 2011, 2014). Furthermore, Hall et al.'s (2003) framework dimensions align best with several distinctive features of intercollegiate athletics departments, therefore the use of Hall et al.'s (2003) framework is deemed most appropriate for the current study.

Purpose and Research Questions

The primary purpose of this thesis is to explore the organizational capacity of Canadian intercollegiate athletic departments to engage in environmentally sustainable operations. The following research questions have been developed to guide the research process:

RQ1. How do key athletic department personnel perceive and prioritize ES as it relates to the purpose (i.e., mission/vision, strategic plan) and operations of their athletic department?

RQ2. What is the nature of organizational capacity in athletic departments that restricts or enables ES pursuit (i.e., human resources, financial, planning and development, infrastructure and process, relationship and network)?

Thesis Outline

Beyond this Introduction chapter, this thesis consists of five chapters. Chapter two examines the literature related to ES, SES, and organizational capacity. It provides a background into the general characteristics and current understandings of ES, followed by an overview of how SES is conceptualized in the literature and a description of some of the ways in which ES has been practiced in sport organizations. From here, the focus shifts to discuss Hall et al.'s (2003) organizational capacity framework, identifying the ways in which it has been applied in sport literature, and highlights the five capacity dimensions: 1) human resources, 2) financial, 3) infrastructure and process, 4) relationship and network, and 5) planning and development. Chapter three outlines the methodology utilized for this study. Initially, the chapter provides a rationale for the research strategy, design, and qualitative methods that were used in collecting the data for

the study. Following this, the chapter describes the participant recruitment strategy and data collection procedure. The chapter ends with an overview of the process to analyse the data. Chapter four presents the findings of the study organized in themes that align with Hall et al.'s (2003) five capacity dimensions. Chapter five provides a critical analysis and discussion of the findings. In particular, this chapter discusses how the findings connect with previous literature with regard to the factors that enable or constrain ES action for Canadian university athletics departments. Finally, chapter six presents an overall conclusion of the research that details a number of applied contributions through recommendations, and concludes with suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

The purpose of this section is to synthesize the relevant literature related to the broad subject areas of this study: environmental sustainability (ES), sport and environmental sustainability (SES), and Hall et al.'s (2003) organizational capacity framework. The first section identifies general characteristics and current understandings of ES. Following this is an overview of how SES is conceptualized in the literature and a description of some of the ways in which ES is practiced in sport organizations. Finally, this chapter discusses Hall et al.'s (2003) organizational capacity framework, identifying the ways in which it has been applied in sport literature, and how it will be used to guide the current study.

Environmental Sustainability

The United Nations (UN) describes sustainable development as a guiding principle for economic, environmental, and social development that seeks to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). Mazurkiewicz (2004) refers to ES as “the environmental implications of a company’s operations, products and facilities to eliminate waste and emissions, maximize the efficiency and productivity of its resources, and minimize practices that might adversely affect the enjoyment of the country’s resources by future generations” (p. 2). In this sense, ES is understood to be expansive and multifarious.

Research on environmental sustainability can be found across a range of disciplines including: engineering (e.g., Medved, Domjan, & Arkar, 2019), environmental science (e.g., Hornborg & Crumley, 2007), and business (e.g., Jain &

Kedia, 2011). More specifically within the business literature, the environment is studied in relation to: strategic implications (e.g., Hart, 1995; Hart & Milstein, 2003), changes in organizational culture (e.g., Govindarajulu & Daily, 2004), and, most commonly, corporate social responsibility (CSR) (e.g., O'Connor & Gronewold, 2013; Smith & Westerbeek, 2007; Wall-Tweedie & Nguyen, 2018; Williamson, Lynch-Wood, & Ramsay, 2006). A number of scholars query the CSR categorization due to the significance of environmental impacts across many, if not all, areas of organizational operations (Etzion, 2007; Pfahl, 2010; Pfahl, Casper, Trendafilova, McCullough, & Nguyen, 2015). Existing research within the business sector implies that companies are beginning to consider their broader influence on the natural environment and introduce practices to reduce their negative environmental impact resulting from legal pressures, improved operational efficiency, partnership opportunities and increased pressure from stakeholders (Sarkar, 2008; Wall-Tweedie & Nguyen, 2016).

Sport and Environmental Sustainability

For the purpose of this study, the focus of ES will be solely discussed in the context of sport, applying Mazurkiewicz's (2004) definition to a sport setting. Therefore, SES is described as initiatives and practices of sport organizations that aim to protect the natural environment in order to preserve resources for future generations.

In recent years, the sport industry has experienced a substantial shift wherein sport organizations have become more aware of environmental impacts at the collegiate, professional, and international sport mega-event levels (e.g., Babiak & Trendafilova, 2011; Casper et al., 2012; Greenhalgh, LeCrom, & Dwyer, 2015; Trendafilova et al., 2013). Simultaneously, scholars have begun to study sport and the environment further,

with increased attention devoted to understanding sustainability in sport (Casper & Pfahl, 2015b; Trendafilova & McCullough, 2018). Some scholars have explored the motives to adopt green practices (e.g., Babiak & Trendafilova, 2011; Ioakimidis et al., 2006; McCullough & Cunningham, 2010; Trendafilova et al., 2013) as well as other areas of SES research including: fan perceptions and engagement (e.g., Casper et al., 2017; Inoue & Kent, 2012), facility management (e.g., Kellison, 2015), sport event sustainability (e.g., Dolf & Teehan, 2015), and climate vulnerability and adaptation (e.g., Dingle & Stewart, 2018; Orr & Inoue, 2019). In sport management research, scholars have used traditional business thinking to analyze and further theorize the environment and sport relationship relative to the most critical managerial divisions including CSR and public relations, facilities, operations, and policies (Casper & Pfahl, 2015b).

Corporate social responsibility and public relations initiatives. CSR is the commitment of an organization to facilitate business activities in an ethical and socially responsible manner (Jonker & De Witte, 2006). CSR activities are rarely required by law; therefore, many organizations view CSR as philanthropic engagements and strategic practices to achieve social and strategic distinction (Trendafilova & Nguyen, 2015). Environmental concern has become an important CSR consideration in sport marketing and management literature due to shared environmental, economic, and social concerns among managers and marketing experts (Montiel, 2008). This research indicates that a growing number of sport organizations are adopting pro-environmental initiatives and promotions (Trendafilova & Nguyen, 2015). For example, through the league-wide adoption of environmental concern, in 2011, the National Hockey League (NHL) introduced a green promotion called *Gallons for Goals*, with each goal scored in the

regular season resulting in 1,000 gallons of water to be restored to the dewatered Deschutes River in Oregon (“NHL Green, NHL Foundation”, 2012).

A new CSR environmental focus in sport is driven by societal expectations of stakeholders. For example, Babiak and Trendafolova (2011) interviewed senior sport personnel and discovered that seeking legitimacy by conforming to these societal pressures to adopt ES CSR initiatives was one of the main motives to adopt such practices. Subsequently, Trendafolova and Babiak (2013) studied environment-related CSR practices of professional sports teams in North America and found that teams and leagues position their environmental initiatives within their CSR agendas, resulting in internal benefits (i.e., shared employee vision), and external benefits (i.e., new sponsorship opportunity). Further, Orr and colleagues (2019) recommend that sport leaders understand that sustainability is more than just recycling and turning the lights off. This group of scholarly experts suggest that “systematic change is necessary” and while some CSR initiatives offer insight into the ES practices from a public relations perspective, further research is needed in order to uncover how these organizations implement ES through their organizational operations and policies.

Organizational operations and policies. In order for valuable change to occur, environmental concern must be approached with detailed action plans and proposals for implementation that put strategic plans successfully into practice, beyond that of CSR initiatives (Crowe, 2015). In sport, this can often be achieved through an operational context including the establishment of partnerships, new facility design strategies, policy and program implementation, and strategic environmental action plans.

Partnerships. Recent partnerships have been formed between the American-based Natural Resources Defense Council (NRDC) and North American sports leagues at the professional and intercollegiate levels (Trendafilova & Nguyen, 2015). For example, in 2005, Major League Baseball (MLB) partnered with the NRDC to develop and employ a league-wide environmental strategy and greening policies, known as the *Team Greening Program* (NRDC, 2008). The *Team Greening Program* provides each individual team with a web-based software tool presenting advice and resources for every aspect of an individual club's operations including energy and water use, concession operations, recycling, and transportation (Neriotti, 2015). Other leagues such as the NHL, National Football League (NFL), and the NCAA have since established partnerships with the NRDC as well (Casper & Pfahl, 2015b).

Beyond partnerships with third-party environmental experts, other forms of sport partnerships have been established. For example, Adidas recently partnered with the University of Miami unveiling special edition Parley baseball jerseys, which utilize repurposed and upcycled materials including Parley Ocean Plastic and regenerated Econyl yarn ("The University of Miami and Adidas", 2019). This partnership not only indicates the University of Miami's intent towards positive environmental behaviours but further signals their efforts to reduce their ecological footprint through their sport operations.

Facilities. When exploring sport facility management, Kellison (2015) reported that pressures to operate sport facilities in more environmentally conscientious ways has led to increasingly innovative means of facility management in order to exhibit sustainable initiatives. Evidently, a growing number of leagues and teams are aiming to

adopt sustainable practices through their sports facilities design. According to Cooper (2009), in 2006 Penn State University constructed the first LEED certified stadium. In 2008, Nationals Park, home of MLB's Washington Nationals, was the first professional stadium to be LEED certified. This facility demonstrates an environmentally sustainable design as it was made with 10 percent recycled materials, regionally produced supplies, accessible to a variety of public transportation routes, includes water and energy conserving fixtures, and incorporates a ground and storm filtration system for efficient water treatment prior to being released back into the local watershed. Likewise, while examining the adoption of pro-environmental initiatives within North American professional and collegiate sport facilities, Kellison et al. (2015) found that lead facility designers embraced ecological values in order to justify new green facilities, technologies, and recycling programs, all of which were considered "added value" to facility ownership. More recently, over 40 major sporting facilities in the U.S. have been recognized by the Green Building Council for sustainable design (Kellison, et al., 2015).

Policies and programs. As the momentum to address ES continues to strengthen in sport, this has prompted governing bodies to adopt and implement formal environmental policies (Kellison, 2015). According to Pfahl (2013), some policy makers introduced legislation that requires stadium proposal plans to include ES in order to be approved. The International Olympic Committee (IOC) also mandates that environmental concern must be addressed during the host city bidding process for the Games. Both the Winter 2010 Olympic Games in Vancouver and the Summer 2012 Olympic Games in London were managed with ES in mind (i.e., including reporting systems and sustainability legacy programs) ("London 2012's sustainability legacy lives on", 2013).

To emphasize the global significance of ES related to sport, in 2018, the IOC aligned with the UN to introduce the United Nations Climate Change initiative known as the UN Sports for Climate Action Framework. This framework aims to support and guide sport personnel in achieving global climate change goals meeting the needs of five key principles: 1) promoting greater environmental responsibility, 2) reducing overall climate impact, 3) educating for climate action, 4) promoting sustainable and responsible consumption, and 5) advocating for climate action through communication (Newsflash, 2019; United Nations Climate Change, n.d.). Over 80 sport organizations and stakeholders have signed the initiative, taking responsibility for their ecological footprint and initiating change through their sport operations by meeting verified standards, measuring and reducing greenhouse emissions, and using sport as a tool to create solidarity among citizens for climate action (Newsflash, 2019).

To date, the University of Colorado Athletics Department (CUAD) is the only NCAA member currently participating in the Sport for Climate Action framework. There are no Canadian university athletics departments listed as participants on the framework. However, Canadian university athletics departments are guided by their governing organization, U Sports. The only mention of environment-related policy in any U Sports documents occurs in their Policies and Procedures document (2018), section 20.40.1.11, which states that “bid committees must demonstrate a commitment to environmental sustainability and reducing the environment footprint of championships” (p. 20-16). U Sports uses a bid process to select hosts and locations for their annual national championships. According to U Sports (2018), bid committees from each institution can request hosting rights one to two years prior to the competition and must meet the

minimum hosting requirements as outlined in the U Sports Bid Book in order to be selected as a host institution. When examining U Sports (2019a) Bid Books for the 2021-2022 Men's and Women's Soccer, and Women's Rugby National Championships, as well as the 2022-2023 Men's and Women's Volleyball National Championships, there is no indication of ES requirements that match the policy in section 20.40.1.11 of the Policies and Procedures document. Other than this section that speaks exclusively to national championships, there are no statements or policies that relate to day-to-day operations, and thus no evidence-base that indicates an environmental commitment by U Sports that mandates university athletics to prioritize ES through their departments routine operations.

Action plans. While policies identify ES mandates that organizations must follow, they become meaningless without detailed action plans, project proposals and the adoption of an environmentally cautious attitude (Crowe, 2015; Orr et al., 2019). As one example, in 2003, the IOC launched the Olympic Games Global Impact Project. This project intended to create, measure, and report on the ES actions of Olympic Games (Casper & Pfahl, 2015b). In another example, Florida State University introduced a recycling program at their football home games in 2010, collecting over 32 tonnes of recycled material during that single season (Trendafilova & Ngyuen, 2015).

Examining the beliefs and values of sport organizations in North America, Sartore-Baldwin and McCollough (2018) advise that sport organizations should take action against climate change by incorporating eco-centric management principles in their organizational practices and thus, become more ecologically just. They further conclude that sport organizations can serve as influencers encouraging other industry

leaders to follow similar eco-friendly practices. Orr et al. (2019) suggest that making sustainability a part of an organizations mission and operations will initiate a buy-in process where all employees, volunteers, and fans will begin to engage in the environmental movement unanimously. They further argue that it can be very difficult to produce effective change without the support from decision makers as they typically have the most power to create change (Orr et al., 2019). Therefore, it is vital to recognize the importance of sport leaders as key individuals to strategically facilitate engagement with ES strategies, which can have spillover effects to encourage stakeholders and other industries to engage in ES alongside sport organizations.

Although the area of SES research is continually evolving, little attention is given to understanding the capacities of sport organizations to engage in ES (Casper & Pfahl, 2015a). Part of this reason is due to the complex nature and diverse capacities of sport organizations (Millar & Doherty, 2018), which contributes to their different approaches when enacting sustainable behaviour. Casper et al. (2012) claim that “in sport, given the relatively new interest in the topic, little research has focused on blending the broad aspects of the natural environment issues in relation to organizational operations” (p. 4). Studies investigating the ecological footprint of intercollegiate sport are limited, and nearly all publications within this context focus on the NCAA in the U.S (e.g., Casper et al., 2012; Casper et al., 2017; McCullough, Kellison, & Wendling, 2018). As such, these authors encourage scholars to examine the relationship between sport and the environment in new settings, beyond NCAA Division I and professional sport. Findings from NCAA studies are not easily transferable to a Canadian intercollegiate sport context due to unique operational differences such as financial budget structures and revenue

generation, athletic division structure, level of competition, sport event attendance, and human resources (Casper et al., 2017). Additionally, Casper and Pfahl (2015) call for a focus on athletic departments and their strategic processes related to environmental activities. Likewise, Canadian intercollegiate sport is arguably incomparable to professional sport research due to similar discrepancies such as level of competition, financial and human resource access, and global market reach (e.g., Ciletti, Lanasa, Ramos, Luchs, & Junying, 2010; Trendafilova et al., 2013). Moreover, working in close alignment with the objectives of the institution, Canadian intercollegiate athletic departments are key community actors (Geiger, 2013). They are responsible for hosting and educating students, community members, and sports fans regionally, nationally, and internationally. Universities also have the ability to influence mass numbers of students, athletes and fans, whom all of which play a pivotal role, individually and collectively, in the shift towards more environmentally sustainable living. Thus, it is critically important to study Canadian athletic departments in order to identify and enable meaningful change towards more eco-friendly attitudes within the Canadian society. The proposed study addresses these gaps in the research.

Organizational Capacity

The term capacity is broad in nature and most commonly defined as an organization's ability to draw on or deploy a variety of types of organizational capital to produce the outputs and outcomes it desires (Hall et al., 2003). There are multiple frameworks in the literature that are used to investigate capacity in varying contexts including: international development (e.g., Morgan, 2008), neighborhood communities (e.g., Chaskin, 2001), and non-profit management (e.g., Hall et al., 2003; Horton et al.,

2003). Recent research in the sport context has driven and expanded capacity literature (e.g., Doherty et al., 2014; Gumulka, Barr, Lasby, & Brownlee, 2005; Millar & Doherty, 2016; Misener & Doherty, 2009; 2013; Sharpe, 2006; Stevens, 2017; Wicker & Breuer, 2011; Wicker & Hallman, 2013). It is proposed that the alterations of capacity models were motivated by the recognition of differences and diversity amongst organizations as capacity needs differ depending on the mission, operating environment, as well as strengths and weaknesses in different areas of an individual organization (Horton et al., 2003). Hall et al.'s (2003) framework was developed specifically for the non-profit sport sector and appears to be the most applied framework in the literature (e.g., Millar & Doherty, 2016; Misener & Doherty, 2009). Its dimensions align with several distinctive features of intercollegiate athletics departments and include the necessary elements for exploring an athletics departments overall capacity. For these reasons, Hall et al.'s (2003) organizational capacity framework is deemed most appropriate for the current study.

Conceptual model of organizational capacity. Hall et al. (2003) outline five critical dimensions that foster goal achievement, including: 1) human resources, 2) financial, 3) infrastructure and process, 4) relationship and network, and 5) planning and development. It is implied that the ability to attain goals is dependent upon an organization's capacity in each dimension respectively and collectively. The understanding of capacity as a multidimensional concept is prevalent amongst scholars as consistent conclusions within the literature propose that these five elements are the most essential dimensions that influence the capacity of an organization (e.g., Eisinger, 2002; Hall et al., 2003; Millar & Doherty, 2016; Misener & Doherty, 2009). The complete framework constructed by Hall et al. (2003) extends beyond the five capacity elements

and includes external factors that influence capacity such as environmental constraints and resource access, as well as organizational outcomes of capacity building (Millar & Doherty, 2016). However, given the exploratory nature of the proposed study, the framework will be used, focusing solely on the five critical capacity dimensions (see Appendix A). Nevertheless, future researchers will be able to build upon the current study, applying the entire capacity framework to a Canadian university athletics context, to aid the capacity building process for these organizations.

Human resources capacity. Human resources capacity refers to an organization's ability to deploy human capital (i.e., paid or volunteer individuals) in order to achieve its objectives and is the most widely studied dimension of organizational capacity (Hall et al., 2003). This dimension also includes the competencies, knowledge, skills, motivations, and behaviours of organization personnel (Hall et al., 2003; Misener & Doherty, 2009). Across several sport contexts (i.e., non-profit, recreation, intercollegiate), sport management scholars have suggested that human resources are central to an organization's overall capacity as they are likely to directly or indirectly influence the other dimensions (e.g., Gumulka et al., 2005; Misener & Doherty, 2009, 2012; Sharpe, 2006; Svensson & Hambrick, 2016; Wicker & Breuer, 2011, 2013). For example, when exploring the capacity of non-profit community sport organizations, Misener and Doherty (2009) discovered that a shortage of staff resulted in a lack of "necessary financial management skills and compromised the financial capacity" of the sports club (p. 496). For this reason, it is reported that an organization's human resources capacity is its greatest strength for goal achievement (Misener & Doherty, 2009). Similarly, Andrassy et al. (2014) found that coaches' and internal stakeholders' knowledge, creativity, and value

of organizational culture played a critical role in the ability to leverage relationships and achieve the organizations goals despite their limited financial capacity. This demonstrates the importance of human capacity beyond the quantity of human capital, emphasizing the significance of knowledge and expertise among employees as well. Much research related to human resources capacity in an intercollegiate sport context is predominantly fixated on the hiring and engagement of women and gender role stereotyping (e.g., Acosta & Carpenter, 2010; Burton, Barr, Fink, & Bruening, 2009; Peachey & Burton, 2011) and student athlete development (e.g., Andrassy et al., 2014). This is not discounting Casper et al.'s (2012) exploration of sustainability practices of NCAA athletic departments. While the athletic personnel's level of awareness of environmental issues was found to be high, the results presented a disconnect between awareness and knowledge resulting in a lack of implementation or pursuit of environmental sustainability action.

Financial capacity. Financial capacity refers to an organization's ability to strategically manage financial resources including revenues, expenses, assets, and liabilities (Hall et al., 2003). Doherty et al. (2014) suggest that key financial factors include: manageable expenses, adequate and stable revenues, and financial management. This supports Hall et al.'s (2003) claim that "non-profit and voluntary organizations in Canada face significant financial challenges that effect their ability to fulfill their missions" (p. 27), notably due to resource allocation policies and a lack of core funding. The same is presumed of Canadian intercollegiate athletic departments as they also rely on provincial government and university funding, creating constant financial challenges for these departments (e.g., Danylchuk & Grbac, 2016; Danylchuk & MacLean, 2001;

Geiger, 2013). It is for this reason that Canadian athletic departments must act efficiently and creatively in order to effectively manage financial capital appropriately to foster goal achievement. Contradictory to previous research, Misener and Doherty (2009) found that financial capital in the community sport context was not a critical factor of goal achievement. However, the authors suggest that “challenges with regard to financial planning and management may become more critical and require more attention as sport clubs grow and more people become involved” (Misener & Doherty, 2009, p. 478). Despite Misener and Doherty’s (2009) findings, scholars continue to examine financial capacity, with results arguing that revenue diversification and resource acquisition allow sport organizations to achieve organizational objectives (e.g., Wicker & Breuer, 2011; 2014). Furthermore, Jin, Lunhua Mao, Zhang, and Walker (2011) explored donor behaviour and green stadium initiatives (GSI) within the context of the NCAA and found that intercollegiate sport programs that focus on favourable attitudes towards GSI will likely increase donor intentions, thus increasing financial capacity.

Infrastructure and process capacity. Infrastructure and process capacity refers to an organization’s ability to initiate and deploy internal operational efforts, including aspects related to internal structure and day-to-day operations (e.g., culture, policies, and procedures) (e.g., Doherty et al., 2014; Misener & Doherty, 2009). Frequent and open communication amongst staff, a positive organizational culture, and adequate facilities are all identified as critical aspects of infrastructure capacity (Doherty et al., 2014). In a community sport setting, Misener and Doherty (2009) found that infrastructure and process capacity was not perceived to have a strong impact on overall goal achievement. However, findings from Balduck, Lucidarme, Marlier, and Willem (2015) report that

infrastructure problems were present for larger sport clubs, and from a sport-for-all perspective the authors suggest that “this is problematic because successful sports clubs might have to refuse new members due to limited infrastructure resources” (p. 2039). Additional findings from Svensson, Hancock, and Hums (2017) and Clutterbuck and Doherty (2019) support Balduck et al. (2015), offering findings that identify Information Technology (IT) as a critical asset for organizations at all levels of management. Clutterbuck and Doherty (2019) also found that facilities and space for programming was a challenge within an organization’s capacity, thus reinforcing previous capacity research (e.g., Svensson & Hambrick, 2016; Svensson et al., 2017).

Relationship and network capacity. Hall et al. (2003) define this dimension as the ability of an organization to draw on relationships with external groups such as clients, members, funding agencies, partners, government, media, and the public. Partnerships and network relationships have been considered important for sport organizations, as they allow access to shared values, resources, knowledge, and experience (e.g., Hall et al., 2003; Misener & Doherty, 2009; Svensson & Hambrick, 2016). Misener and Doherty (2009) further argue this importance in their study of capacity in a non-profit community sports club, concluding that relationship and network connections between community sport organizations and external stakeholders was distinct and further identified as a strength for reaching organizational goals. Similarly, in a domestic sport for development (SFD) context, Clutterbuck and Doherty (2019) identified several critical elements within the external relationship and network capacity dimension including engaged partners, sustained partnerships, social capital, and successful partnership management. The

authors conclude these elements are all “critical for program continuity” and “critical to achieving social change” (Clutterbuck & Doherty, p. 27).

Within an intercollegiate context, previous research on relationship and network capacity has typically focused on the relationship between an athletic department and its respective university. For example, Buer (2009) researched athletic programs in the NCAA and found university athletic programs have dual identities, being both academic and competitive athletic entertainment. The author identified conflicts between the athletic and academic identities within organizations, however he suggests issues can be alleviated by building relationships, synergizing the two identities of an institution. Developing partnerships with organizations and businesses that share an interest in environmental concern has the ability to facilitate organizational changes towards more sustainable operations, eco-efficiency, cost savings and revenue opportunities for university athletic programs (Casper et al., 2012). Furthermore, organizational learning competencies can be gained through the development of relationships with the university, green corporations, or other partners who value sustainability, in order to improve the awareness, knowledge, and practice of ES. Although there is potential, there is no guarantee that every partnership will result in a pro-environmental relationship, therefore attention must be given to proactive relationship development in order for continuous growth in the area of sustainability to occur (e.g., Casper & Pfhal, 2015a; Owens & Halfacre-Hitchcock, 2006; Woodland & Hutton, 2012).

Planning and development capacity. Planning and development capacity refers to an organization’s immediate and future goals and subsequently formulating and monitoring strategies to help attain those aims (Hall et al., 2003). For many

organizations, a lack of strategic planning for funding is the greatest challenge to the development of organizational vision and strategic planning (Hall et al., 2003). Although little research has focused on this dimension in isolation, planning and development is recognized as one of the biggest factors to influence the overall achievement of organizational goals in a sport context (e.g., Gumulka et al., 2005; Misener & Doherty, 2009, 2012; Svensson & Hambrick, 2016). Dolles and Söderman (2010) examined the Federation International de football Association's (FIFA) "Green Goal" initiative from 2006 and determined this initiative was a specific pro-environmental goal of the sport organization, which links with Hall et al.'s (2003) planning and development capacity dimension. Some sport clubs in Doherty et al.'s (2014) study agree that strategic planning is critical, however their long-term planning was sacrificed due to a need to focus on day-to-day operations, presenting a challenge for overall club performance. Svensson and Hambrick (2016) explored the capacities of Gainline Africa (GA), a small sport for development and peace, non-profit organization, to identify key elements that influence their organizational capacity. Their findings further support Doherty et al.'s (2014) conclusion, as an interviewee remarked "we don't plan very often. We don't sit down to really identify objectives and our long-term vision" (p. 129), thus restricting long-term goal achievement. Casper et al. (2012) found little evidence supporting an appropriate level of key environmental strategies of NCAA athletic departments. The authors advise that "without a clear plan in place, athletic departments are unlikely to maximize the potential of their green efforts" (p. 21). The collective impact of such activities is potentially quite large, offering opportunities in the area of sustainability that not only benefit our planet, but also have the potential to positively affect the brand of Canadian

athletic programs. However, these opportunities require extensive planning and commitment both short and long term, which may be difficult for some athletic departments.

To fully understand capacity, scholars suggest that these five dimensions be considered as an interconnected system, with each dimension having an impact on another (e.g., Clutterbuck & Doherty, 2019; Hall et al., 2003; Misener & Doherty, 2009; Svensson & Hambrick, 2016; Svensson et al., 2017). Clutterbuck and Doherty (2019) additionally note that “the specific elements within each dimension are expected to vary by the particular context” (p. 17), thus supporting Doherty et al.’s (2014) argument that the use of Hall et al.’s (2003) framework is crucial to better understand each element in a specific sport context. This framework provides a foundation for examining the capacities (or lack thereof) that enable or restrict organizations from achieving particular objectives. Stevens (2017) advocates for an examination of capacity, and SES more broadly, beyond the “what” and “where”, to analyze the “why” and “how” within SES scholarship. Specifically, Stevens (2017) encourages the use of a capacity framework to determine the intersection of sport, ES, and capacity in order to advance knowledge of SES and address the broader question of whether sport organizations are able to attain such organizational change.

Using Hall et al.’s (2003) capacity elements, the purpose of this thesis is to explore the organizational capacity of Canadian intercollegiate athletic departments to engage in environmentally sustainable operations. More specifically it seeks to uncover the nature of organizational capacity in athletic departments that restricts or enables ES pursuits (i.e., human resources, financial, planning and development, infrastructure and

process, relationship and network). Following Orr et al.'s (2019) claim about the key roles of decision makers in organizations, there is a need to understand how athletic department leaders perceive and prioritize ES as it relates to the purpose (i.e., mission/vision, strategic plan) and operations of their athletic department. As industry leaders, it is essential for Canadian university athletics to adopt a more sustainable approach and urge the reduction of their ecological footprint in order to preserve ecosystems and life on earth. Exploring the capacity of Canadian athletic departments provides the foundation for these leaders to pursue environmental action by identifying the ways in which their athletic department can make use of resources that are available to them to exercise more environmentally friendly action and lessen their ecological footprint.

CHAPTER 3

METHODOLOGY

This chapter describes the research design and methods used to uncover the capacity of Canadian university athletics departments to pursue ES practices. An outline of the research methods is explained, followed by the data collection procedures including an overview of the interview guide and participant recruitment, and finally the data analysis techniques used.

The researcher was guided by an interpretive phenomenological qualitative research paradigm (Marshall & Rossman, 2004), seeking to examine the complex nature of the participants lived experiences with ES in their own words (Creswell, 2007). Through this process, it was anticipated the results would offer a more comprehensive understanding of Canadian athletic personnel's familiarity and experience with sustainability in their athletic department's operations and create further analysis and trend development in the context of SES.

The majority of research investigating SES has used a quantitative approach. As one example, Casper et al. (2012) applied a quantitative approach, issuing a survey to participating NCAA Division I athletics department staff aiming to examine awareness levels and concern for environmental issues, as well as discover the department's environmental strategies and practices. More recently, there have been calls for qualitative work in this area of research as interviews allow for "an in-depth understanding of the participants' perspectives concerning their organization's involvement in environmental initiatives" (Babiak & Trendafilova, 2011, p. 16). Unlike with surveys, an interview provides an opportunity to ask follow-up questions permitting

detailed responses aimed at developing better insight on the topic (e.g., Bakos, 2014; Casper et al., 2012; Casper & Pfahl, 2015a; Rowley, 2012). Therefore, semi-structured interviews were deemed most appropriate and were used in the current study.

Data Collection

Interview guide. A semi-structured interview guide was used to investigate organizational capacity within a Canadian intercollegiate sport context (see Appendix B). Semi-structured interviews allowed for more focused conversation with participants as the interview guide provided a broad plan for the conversation, keeping in mind the time participants had committed to the interview process (Patton, 2015). This research methodology allowed for in-depth results, flexibility, and the ability to ask complex questions (Andrew, Pedersen, & McEvoy, 2011). The interview questions enabled the collection of rich data that responded to the overarching research questions while seeking to address each dimension from Hall et al.'s (2003) capacity framework. As such, the interview questions and follow-up prompts helped to understand the nature of each capacity dimension on the ES actions of Canadian university athletics departments. In this study, it was necessary for the researcher to personally communicate with participants to collect complex in-depth information (e.g., Savin-Baden & Major, 2013) and to understand the participants' interpretation of sustainable operations within their athletic department. In this way, the researcher was not limited to collecting data through questionnaires or surveys, whereby emotion and tone may not be interpreted.

Participant recruitment and data collection began upon approval from The Research Ethics Board (REB) at the University of Windsor.

Participant recruitment. U Sports is the governing body of university athletics across Canada. There are a total of 56 institutions that are members of U Sports. A list of all U Sports institutions was compiled via the U Sports official website (<https://usports.ca/hq/member-universities>). From this list, Canadian university athletics department's public websites were accessed in order to further locate the email addresses of current athletic directors. Employing purposeful sampling (Palinkas, Horwitz, Green, Wisdom, Duan, & Hoagwood, 2015), every athletic director in each U Sports region (i.e., Canada West: CW, Ontario University Athletics: OUA, Réseau du Sport Étudiant du Québec: RSEQ, and Atlantic University Sport: AUS) was sent an email inviting them to participate in the study. Attached to the email was an information sheet that briefly described the purpose, procedures, risks and benefits of the study as well as a consent form.

Following Casper et al. (2012), three criteria were applied as inclusion criteria for participation in the study. The criteria were included in the recruitment email and detailed the need for the participant to be: 1) the person most likely to have access to information related to sustainability and environmental efforts in their athletics department, 2) must have specific knowledge about their department's overall operations, and 3) partake in a leadership role within their department. In some cases, it may not have been the athletic director who was best suited to participate in the study, since organizational structures differ between athletic departments across Canadian universities. Therefore, a chain referral sampling method was employed where "referrals [are] made among people who share or know of others who possess some characteristics that are of research interest" (Biernacki & Waldorf, 1981, p.141).

Data collection and participants. A total of 12 respondents replied to the recruitment email to indicate their interest to participate in the study. Interviews were conducted over the phone and took between 45 and 75 minutes to complete. Interviews were audio recorded and transcribed verbatim (Creswell, 2007). In an effort to assert accuracy of the transcribed interviews, the process of member checking took place in order to ensure credibility and reliability of data (Amis, 2005). Participants were sent a copy of their interview transcript prior to analysis of data in order to confirm that their perceptions were appropriately captured and to provide any further insight, if desired (Amis, 2005). Participants were instructed to return the interview transcript within two weeks of receipt. If participants did not respond, this was interpreted as not having any desired changes to the interview transcript. In the intention of reaching valid and reliable data, interviews continued until interview responses provided no new forthcoming information, at which point the researcher had reached a point of saturation (Lincoln & Guba, 1985; Patton, 2015).

As stated, 12 participants volunteered for the study. Eleven of them were Athletic Directors and one was a Facility Manager. Length of employment at their current university ranged from 4 to 30 years, and the length of time participants had been in their current position ranged from 3 to 22. While the purpose of this study is not comparative in nature, it is important to note that the participants represented universities from across Canada with three being from Canada West, five from Ontario University Athletics, two from Réseau du Sport Étudiant du Québec, and two from Atlantic University Sport.

Data analysis. Following the completion of all interviews, a two-step data coding process was conducted (Charmaz, 2002). After an initial read through by the primary researcher, verified transcripts were independently examined by the author and the research advisor to identify codes using a combination of inductive and deductive coding methods (Patton, 2015). Beginning with general observations, the data was openly coded into categories and respective sub-categories of emerging themes throughout the participants responses. Simultaneously, data was analyzed identifying themes that emerge within the five capacity dimensions of Hall et al.'s (2003) framework: 1) human resources, 2) financial, 3) infrastructure and process, 4) relationship and network, and 5) planning and development. Together, researchers discussed their emerging concepts until full agreement of codes and sub-codes was met. The use of two researchers throughout the analysis process provided triangulation among the data, researchers, and existing literature to strengthen the verification of findings (Miles, Huberman, & Saldaña, 2014). Data quality was enhanced through the collection and comparison of the data based on the principles of idea convergence and the confirmation of findings (Knafl & Breitmayer, 1989). Actual words spoken and transcribed was assessed by the researchers to assert accuracy of coded data.

Where possible, supporting data was obtained from sources other than interviews (i.e., department's official website) to provide additional support to help contextualize participants' responses, as well as to verify particular details that participants had provided in their interview. Opportunities to examine any documents (i.e., organizations strategic plan and sustainability documents) referred to by participants during the

interviews also took place, as these documents provided additional information on the experiences of the participants being interviewed (e.g., Azungah, 2018; Shenton, 2004).

CHAPTER 4

FINDINGS

The purpose of this study was to gain insight into the organizational capacity of Canadian athletics departments to engage in ES efforts. This chapter presents the results that are based on themes and sub-themes that emerged from the interviews. The themes and sub-themes are categorized within the areas of environmental initiatives and Hall et al.'s (2003) five capacity dimensions: 1) human resources, 2) financial, 3) infrastructure and process, 4) relationship and network, and 5) planning and development. Within each dimension, key sub-themes are presented that discuss perceived enablers or constraints for athletics departments and the overall perceived impact of each dimension in the pursuit of ES. Quotes from participants are provided throughout to further illustrate the findings.

Environmental Initiatives

To determine the current sustainability activities, participants were asked to describe their existing ES strategies within their athletics departments. The most frequently stated environmental initiatives and strategies related specifically to waste management, energy efficiencies, and water conservation. Less frequently discussed, but mentioned nonetheless, were strategies related to travel and transportation, as well as LEED facility standards and certification achievements. The perceived importance of environmental strategies varied amongst participants.

All of the participants indicated that waste management strategies, such as recycling in the office, reducing the use of plastic water bottles and paper, were highly prioritized. The most common examples of initiatives related to energy efficiencies

included the use of Light Emitting Diode (LED) types of lighting, and automatic lighting and air conditioning shutoffs. Less common was the use of solar panels and geothermal energy strategies. Participants acknowledged different strategies of water conservation such as automatic water shutoffs and sensors. Additionally, linking with waste management practices, participants indicated the importance of water fountains and refill stations to assist with the reduction of plastic water bottle use as well as a means of educating individuals in the building on the importance of water conservation. Further, one participant spoke about implementing a rainwater collection and recycle system that upcycles rainwater from the roof of their athletics building to be used throughout their facilities.

The quantity and means of travel by university sports teams were recognized by some participants as among the greatest challenges for athletics departments when considering environmentally sustainable options. These participants admitted to employing strategies such as carpooling and strategic scheduling of games in order to contend with this ES engagement constraint, given the nature and structure of Canadian university sport competitions.

Several participants shared that for their new athletics facilities, receiving LEED certification was unavoidable because they had already incorporated green design elements when they were initially constructed. However for older athletics buildings, meeting this standard became a challenge and LEED certification typically came after a major renovation. Participants declared that having facilities that had attained LEED certifications and met environmental standards enabled their pursuit of environmentally

sustainable operations though not all participants' facilities met such standards at the time of the interview.

Overall, most participants recognized that all ES initiatives are important. Some participants noted that their department prioritizes initiatives within their immediate control such as recycling, while other large-scale initiatives such as environmentally efficient facility renovation may be given less precedence due to a lack of immediate control related to costs and planning restrictions. Other participants countered this claim stating that large-scale projects (i.e., facility renovations) deliver the greatest environmental return on investment and therefore should be, and in some cases are, the most important initiatives.

Human Resources Capacity

Four sub-themes emerged relating to human resources capacity: (1) sufficient staff; (2) passionate staff; (3) environmental liaison; and (4) knowledgeable staff.

Sufficient staff. Several participants shared that the number of staff employed within their department impacted the general ability of the department to pursue environmentally sustainable action. Participant B stated that because they had such a small group of employees working in the department, they were unable to delegate a specific group within athletics to exclusively focus on ES:

We're a very small part of a big university, so wherever there's initiatives we participate in them. But we don't have our own team within athletics because we are actually fairly small, so there's not many of us anyway. (Participant B)

Likewise, Participant C shared that as a result of an insufficient number of staff, their department was unable to develop an internal green team to concentrate entirely on ES

initiatives for the department, “We have a very small department. [...] So we don’t have a specific athletics and recreation team that just concentrates on that.” Relatedly, Participant K claimed that the sheer number of priorities made ES action difficult to balance, as the number of staff employed within the department was limited. They stated, “There’s just so many competing priorities when you’re running programs...and human resources just go so far. [Sustainability] just would take a massive focus and we don’t have people that are dedicated to it.” The apparent lack of sufficient staff was recognized as a key barrier for university athletics departments, ultimately constraining their capacity to pursue ES action.

Passionate staff. Overall, participants indicated a high level of awareness about the importance of ES. Notably, many suggested that the demonstration of high levels of personal passion and drive for the natural environment by staff influences more ES action in the department. Participant A recognized that even their own support for ES action can motivate staff, “my attitude helps a little bit in that ‘yes this is important’ and ‘yes, this is something we support’.” Similarly, Participant I indicated that staff often show initiative towards ES action:

They’re proactive about it and they are on top of things; they actually make proposals that we put forward to our Sustainability Office rather than waiting for top down messaging to the Department to try things. So we like to try things on our own.

Speaking about the dedicated staff in their department, Participant B suggested that these behaviours originated from their staff’s own personal practice and behaviours outside of work and identified that as a key strength of their department’s pursuit of ES. He

claimed, “a lot of it is so much individual behaviour, and people doing things that they can do to contribute on an individual behaviour base.” Participant J also viewed this as an advantage, “The strength that they have, it would all be personal influences and their experiences that would be influencing best practices and best behaviours in regard to our operations.” Participant F noted that a staff member’s level of knowledge often related to their level of interest for ES outside of the workplace. In his perspective, an awareness of ES practices “would be varied all across the people I work with. For some of them it would be a topic that they would have a great deal of interest in and some of them would have little to none.” Indeed, personal behaviours and interests of staff members were perceived to benefit athletics departments when considering pursuit of ES initiatives. This emphasizes the importance of individual passion and enthusiasm as enablers for such action.

Environmental liaison. Participants noted that although personal concern for the environment aided the department to advocate for ES action, many athletic departments had management positions that were formally entrusted with ES responsibility. These types of positions were recognized as the designated environmental liaison within the department. These individuals were responsible for a range of tasks, which included networking, communicating, planning, and leading environmental initiatives alongside their general operational duties. Many participants confirmed that either the Head of Athletics or the staff member responsible for the athletics facilities (i.e., Facilities Manager, Facilities Operator, Facilities Director) managed the majority of the environmental initiatives within the department. This was likely due to most initiatives relating specifically to facility efficiencies including waste management, energy

efficiencies, and water conservation. As Participant C stated, “Usually I’m involved but I would have my facility manager as well as my associate director of Business Operations who oversees the facility component part.” Participant L also indicated, “the head of our facilities would manage our facilities and the largest impact would fall to our Facilities Manager and our Facilities Director.”

Relatedly, Participant A and Participant I both commented on close working relationships between the facilities managers, who lead ES action, and event staff personnel to pursue ES together. For most athletics departments, these ‘environmental liaisons’ worked alongside university-wide sustainability units and facilities staff to successfully implement and lead ES practices for the athletics department. As Participant A affirmed:

The Physical Resources group that manages the facilities and cleaning and garbage, they’re kind of separate, however, our manager in events staff from our department liaises with the lead of the Physical Resources group. [...] The relationship between the individual from our department and the individual from Physical Resources that manages the [university-wide] green initiative, they already have a really strong work relationship, so I think that’s helped as well.

Although no athletics department had sufficient staff to generate a formal internal green team, it was emphasized that having one or two staff that were specifically tasked with ES responsibility within the department was essential for the department to liaise and exchange environmental ideas with the university-wide sustainability unit in order to initiate ES action. Participant G indicated that: “through the Director of Physical Plant at

the University, they would have a building committee and usually we'll have a person on that committee, so we do have input.”

Overall, participants noted that although the sustainability group for the university was often initiating the ES action, it was vital to have a designated ES liaison within the athletics department in order to efficiently coordinate with the individuals on those campus-wide groups to enable the pursuit of ES action within the athletics department.

Knowledgeable staff. The majority of participants acknowledged that the individuals responsible for leading the environmental initiatives within the department had no formal education background in environmental science and/or sustainability. However, some participants identified that their environmental liaisons completed training and environmental courses on a regular basis. This type of professional education gave the participants the perception that these individuals had a greater amount of ES knowledge, which enabled the athletics departments to pursue ES practices more effectively. According to Participant A, “my manager of facilities is pretty good. He goes to a course every year on sustainability...he’s got a pretty good idea.”

Several participants noted that they were aware of ES learning opportunities that are specifically made available by their institution. Numerous participants identified that their university’s sustainability group offered educational resources such as workshops and presentations as well as actively promoted campus-wide ES activities via informational emails. As Participant I recounted:

The sustainability office has done some workshops before and when it comes to professional development, I am very supportive of my staff improving themselves and always trying to better themselves in their positions or for future positions so

if and when those opportunities present themselves I am more than willing to send people to them.

Participant K recognized that there were resourceful tools presented by the university but admitted that their understanding of the details of these resources was unclear, stating that “There probably would be across the University. [...] Do I know what they are? No, I don’t.”

The benefits of continuous education were further recognized by Participant E as they mentioned that “there would be a range [of knowledge], and what you have is for every area of operation, the engagement would happen through that person’s own continuing education in their area of expertise.” Although most participants recognized educational opportunities were readily available, they were often described as voluntary and not mandated by the department. Therefore, some participants admitted that the educational opportunities themselves were only as valuable as the individual behaviour of staff, implying that the commitment to these opportunities was deemed far more important. According to Participant F,

We do have a sustainability committee that is active and is encouraging people to use and to do things responsibly on campus. [...] They do some activities during the year in terms of commuting challenges, getting people to think about walking, cycling, taking public transit and getting to campus that way. So there is a group that is active, and I know that they’re out there emailing people and doing things to try and get people involved and looking to educate people. But it’s up to the individual whether they want to follow up and do those things...[education is] not

mandated, but the information does come to all employees when they send things out or when they are actively doing projects.

While the various ES education opportunities did not appear to be the most fundamental motives for engaging in ES efforts, they were acknowledged by the majority of participants for its potential to increase their staff's knowledge of sustainability and enable their athletics departments ES engagement through sustainable operations.

Financial Capacity

Three sub-themes emerged relating to financial capacity: (1) sufficient funds; (2) alternate sources of revenue; and, (3) innovative spending.

Sufficient funds. Overall, several participants noted that their department had a very restricted budget to fulfill the operational needs of their athletics departments. Participant J outright acknowledged that, “the driver [to do ES] ultimately is financial as I can only go as far as my finances will allow me.” Likewise, Participant E suggested that a restricted budget ultimately constrained their ability to pursue ES initiatives:

[We are] limited. Limited in the sense that our budget is fairly tight to the core of our operations, which is running athletics programming and so whether it be environmental sustainability or community engagement or any other cause you might want to identify, there just isn't extra room in the budget for any initiatives that's not central to the core. [...] Where it becomes difficult, is if it's an initiative that we'd like to do but it becomes a more costly initiative, trying to draw that out of our existing budget means that there's something else in our budget or plans that we intended to do that we won't be able to do now. So that's where it becomes more difficult. (Participant E)

Due to these financial constraints, many participants revealed that their athletics departments were less likely to support ES practices as stand-alone projects or initiatives within their budget. However, some participants recognized the link between ES practices and their general operational goals and therefore incorporated sustainability into their operating budget. As Participant C disclosed, “A lot of [ES] has to do with the general operating budget. We are always looking for efficiencies more than if you’re looking at it as ‘do I have a sustainability portion of my budget?’” This strategy, however, was not found to be an advantage by all participants. Participant E identified the challenge of not having a budget with ES costs nested within an otherwise very limited operational budget overall:

I think the bottom line is there’s no objection to it being a good or the right thing to do, the challenge just becomes as you make commitments towards this, how do you operationalize them financially if there’s not an embedded way to do that. And if that’s competing against other interests for why we existed in our athletic programming than its hard to pull funds away.

Participant F noted that the greatest financial challenge was presented when considering large-scale projects and initiatives such as facility renovations and updates. He recognized that although these initiatives were beneficial to the environment, they are often aspirational and do not become a reality because of the financial restrictions associated with them. Similarly, Participant H stated,

How the utilities are incorporated into the building, high energy-efficient water heaters, software where we can integrate our facilities scheduling into the heating and cooling and lighting of the facility. [...] When you can operate like that,

savings are significant and what it takes to actually operate the facilities is much more efficient and our impact on the environment is much improved. What we need to do then is go back and look at the older facility and try and bring it up to date. But it's extremely costly to do that. [...] It's a significant amount of work and it's a significant expense too. So what we would like to do in the older facility compared to what we can do just on budget alone are two different things.

There were, however, some participants who rejected the financial limits of their budgets to pursue ES action. Participant I claimed that "financial issues would not detract from us pursuing a sustainable option to something that we are providing." Additionally, Participant B shared that their budget did not constrain them when considering ES engagement and the individual behaviour of staff was prioritized over having sufficient financial resources. He asserted that:

I don't think budget really constrains it. A lot of it is so much individual behaviour, and people doing things that they can do to contribute on an individual behaviour base. And I don't think organizations need to have a lot of money. I don't think organizational money is the answer, it's somehow or another, changing peoples' perceptions of the importance of how they individually behave so I don't think it is budget related.

Although Participants I and B claimed that finances do not restrict ES pursuit, a majority of the participants believed that a lack of financial resources within their departments budget was a major constraint on their capacity to pursue sustainability, especially when considering major development's such as new facility construction projects and facility renovations.

Alternate sources of revenue. While many participants admitted that their departments' budgets did not specifically allocate funding for ES initiatives, some noted that they made use of their university's financial resources to engage in ES for the department. According to Participant H,

It would be recognized in our Physical Plants' [budget], as our Physical Plant group maintains all of our facilities on campus. We do have a sustainability officer [centralized on the university's campus] and I would assume that there is some budget in that person's budgetary discretion.

Relatedly, Participant L specified that ES was centrally budgeted within the University rather than at the departmental unit level and claimed, "I don't know if there's budget dollars allocated at the unit level towards these initiatives. It's more centrally budgeted. [...] There wouldn't be line budgets in my unit budget allocated directly to sustainability."

As discussed in the previous section, Participant I noted that their departmental budget did not particularly constrain their ES pursuit, however, they too relied on their institution's financial resources to aid their environmental engagement as a department, stating "The University does have funds set up through the sustainability office to help with initiatives when looking to transform processes that would become more environmentally friendly and more sustainable." Participant K also identified specific financial resources provided by the institution that are dedicated to help with special projects such as infrastructure improvements across the departmental units. She claimed, the University has a separate pot of money annually that we apply for. [...] It's [purpose is for] special projects like our infrastructure projects and we would

apply for special things through there, so that would be over and above our budget.

Beyond their institution's financial resources, Participant A acknowledged federal government funding, "Centrally, the University pays for [our energy] so there's no definitive budget to show cost savings or investment in it. ...[Also] there was a massive financial investment from [the Federal Government] of \$26 Million that was initiated in 2011." Although this federal-level revenue was invested into the institution as a whole, these funds nonetheless enabled Participant A's athletics department to engage in ES practices. Overall, participants identified that having access to, and using, alternate sources of revenue was a critical element to enable ES pursuit within athletics departments.

Innovative spending. Participants indicated that budget restrictions encourage creative financial management techniques in order to pursue environmental action. Several participants argued that innovative spending was a key enabler. According to Participant E, "our budget is fairly tied to the core of our operations which is running athletics programming. [...] I think being creative with what's inherently given to us and around us is important." Some participants discussed a need to be creative when considering their time and means of traveling for athletic competitions and events. These participants spoke of their aim to travel in environmentally efficient ways and use creative tactics such as carpooling, to use limited funds efficiently:

We don't have a lot of air travel, but we do have a tremendous amount of charter bus travel so maybe taking strategies to try and double up travel or limit travel when it's not necessarily 100% required might be a strategy. (Participant L)

However, decisions to change travel procedures and routines was often noted as an economical decision and less of a decision prompted by a concern of environmental impact. As Participant G suggested:

If our coaches go recruiting, you know we have men's and women's sports, rather than them traveling separately to different places, they travel together and stay in the same place. [...] So is it thought that we do that to save the environment? Really, it's to save money.

Participant G further emphasized that innovatively saving money and environmental stewardship are often closely associated. He stated, "a big chunk of our budget is for travel, but it comes hand-in-hand because when you're trying to save money because you don't have the money, it's also better for the environment." Participant G later reiterated this point with another innovative use of funds in order to reduce the use of paper products:

One initiative that we did was that we were using a lot of paper products and again, the decision was made for financial reasons but for instance, cleaning machines and stuff, we went to a system where we use towels, and we wash the towels and reuse them. So that's one example of things where we try to reduce cost but in fact it also reduces the waste.

Overall, a majority of the participants indicated that departmental budget restrictions encourage creative financial management techniques and innovative spending, which, in turn, enable the pursuit of environmental action within the department.

Infrastructure and Process Capacity

Four sub-themes emerged relating to infrastructure and process capacity: (1) certified facilities; (2) culture of sustainability; (3) internal communication; and, (4) external communication.

Certified facilities. Several participants shared that facilities with LEED certifications and that met environmental standards enabled their pursuit of environmentally sustainable operations. According to Participant H,

In the planning to be LEED certified, you have to have very good systems in place to be gold certified. And that just goes back to how the utilities are incorporated into the building, high energy-efficient water heaters, software where we can integrate our facilities scheduling into the heating and cooling and lighting of the facility. So if we don't have activities that are scheduled on the field, our scheduling software tells that to our facilities software and lighting shuts off, heating turns off, and we are able to save money. And when you can operate like that savings are significant, and what it takes to actually operate the facilities is much more efficient and our impact on the environment is much improved.

For some of the more recently built venues, receiving LEED certification was easily attainable because they had already incorporated green design elements when they were initially constructed. As Participant A noted,

Every new building we've built in the last 4 years are LEED certified. Overall, we've put in over 140,000 square feet of new space in the last 4 years of buildings; all the automatic water shutoffs; automatic light shutoffs when people aren't in the rooms. The change rooms have automatic shutoffs so students and

student athletes can't leave them on so, we've really taken the LEED model in our buildings.

For older facilities, LEED certification typically came after a major renovation. Many participants indicated that some of their athletic facilities had recently undergone or are currently undertaking renovations in order to meet LEED standards. According to Participant J, "We're doing a significant amount of renovations and expansions to our athletic and recreation facilities and in the future facilities, the standard is much better than the older spaces, so we are addressing some elements of it."

Several participants demonstrated high levels of enthusiasm towards ES by adopting LEED standards for their facilities as well as green turf management strategies. By following these standards, Participant C specifically acknowledged that reaching LEED certifications enabled their department's ES engagement and allowed them to strive towards their institution's carbon emissions target for 2050:

We're always looking to LEED standards within our buildings when we are doing renovations. About five years ago we built the second floor of our fitness center and there was a lot of attention on the air circulation, the natural lighting to reduce the amount and need for indoor lighting in the facilities. Any of the materials in terms of flooring systems and so forth, were sustainable on that side. We have a field in the middle of our campus which is artificial turf and it needs to be rebuilt because we've had some drainage issues. The planning has been both the renewal of the field but also geothermal component part, because the field is built on an old swamp or pond, so there's a water source underneath, and so they're doing access and that's part of a greater plan of CO₂ emissions that everybody has a

target on at all universities, but ours is for 2050. But if we were able to put that as part of our field it would significantly reduce by about a third, that carbon target for the whole campus and the university's target in one swoop.

Other participants noted that their facilities did not meet LEED certifications, however, they still attempted to achieve building efficiencies:

I know that we had a \$5,000,000 expansion five or six years ago, but it was actually in addition to our current facilities so I'm sure there's high-efficiency lighting and things like that in that new section, but it doesn't have the certification. (Participant G)

Although not all participants indicated that their athletic facilities were LEED certified, those who had facilities that met these environmental standards increased their opportunity to become environmentally friendly and enabled sustainable operations.

Culture of sustainability. Overall, participants revealed that ES engagement was important to pursue as a department. Many said they believed it was important to introduce and participate in initiatives when they became available in order to support the socially responsible activities within the university. As Participant B claimed, "we've participated in initiatives when they are available, and we do what we can in our own area. So we support what's happening." Similar levels of enthusiasm and accountability were endorsed by Participant A, "Absolutely! We are big users of energy and water on campus and we need to do our part as well."

Several participants described a sense of pride associated with their department's ES engagement strategies and emphasised the nature of a sustainability culture within the department:

Our [sustainability] logo, is a sense of pride...that logo is a sense of community, and then with people knowing the initiative and that logo, [they] understand it's environmentally sustainable. [...] And I think [that staff] see the value and pride in that. (Participant A)

Further, many participants recognized ES as a critical part of their institution's culture, which, in many cases, was adopted by the athletics department. Participant D exclaimed, "Yes, [sustainability] is important. And at the university level, it's something that is important." This opinion was further echoed by Participant I:

It's really a concern for the environment. I'm wanting to support the sustainability efforts and the pathway that the University is taking. [...] One of our strengths is that we are extremely supportive of sustainability and sustainable measures within the University and our Department.

Relatedly, Participant K discussed their plans to include ES in their new strategic plan in order to better align with their university's goals and objectives surrounding sustainability:

There's a core pillar in their new strategic plan [on] sustainability. And that whole piece is about the facilities and ensuring responsible and sustainable growth of our infrastructure all of it. So it gives us an opportunity to better align with the University.

Overall, many participants recognized that sustainability is valued by their institution and therefore were able to adopt sustainability within their department's cultural norms, which many participants suggested helped to advance their engagement with and enable ES in the department.

Internal communication. Most participants said that they rarely engaged in discussions within their department about their ES practices and sustainability specifically. Participant F outright admitted that, “I would say never. It’s never really been a priority and it’s not really on the radar. It may be something that we need to do but we haven’t.” Although many claimed that ES was not a regular agenda item for departmental meetings, those who indicated that they did discuss ES more frequently noted that these conversations were often between the athletics department’s ‘environmental liaison’ and another university unit, such as the Physical Plant group or Sustainability Office. As Participant A noted, communication about ES occurred “Just between our staff and Physical Resources staff, but [it’s] not on our regular agenda item within our department.” Relatedly, Participant C asserted that ES discussions took place between their department’s ES liaison and the institution’s Sustainability Office, however, he noted that sustainability was not discussed on a regular basis and was only reviewed when a collaborative project had begun that involved both units. He stated,

As a department, it’s not discussed. It’s more the representatives that I have within the department that liaise with the Sustainability Office. So for instance, when they were talking about the geothermal project...I worked with the Director of Facility Asset Management who wanted to investigate the geothermal aspect of things, because I was trying to get a renewal for our field at the time.

Similar to Participant C, Participant E noted that ES was only an agenda item if there was a project underway in which environmental discussion would transpire in the context of that particular project. In this case, ES was not the main focus of the discussion, but rather emerging as a secondary subject. Participant E recounted that,

It comes up when projects are being done. [...] We'll discuss it in the context of that project. When there is a project, we will ensure how the environment and sustainability fit into that, but we don't start a new project with that as the basis.

Those who discussed ES within the departmental unit more often displayed significantly more ES engagement than those who did not discuss the subject. According to participants, these discussions were typically focused around areas needing improvement and evaluation of current practices displaying high levels environmental concern and enthusiasm for environmental stewardship. Participant I explained the regularity of ES discussions, "at least once or twice a quarter we go over these things to see what's been done, how it's proceeding, where there are issues, where do we need support."

Overall, several participants promoted the importance of having internal communication about ES in order to successfully pursue ES action, as several participants indicated their frequent discussion of ES amongst their athletics department staff.

External communication. External communication, specifically in the context of engaging in regular information exchange with external members and stakeholders, was identified by several participants as enabling factor of ES engagement. Participant L stated:

We certainly share a lot [with other athletics departments in Canada], and most of the sharing is around facilities. [...] There has been some discussion over the years and coming together to discuss travel and the impact on the environment from travel and how that could or may in the future guide our scheduling format and scheduling process to limit travel from a sustainability perspective.

Relatedly, Participant E noted that although ES was not typically a stand-alone agenda item in provincial and national meetings of university athletics departments, the value of including ES in these discussions was acknowledged. He explained that:

We work very closely with our member athletics departments and schools and have good relations with my colleagues there. The environment is not a standing agenda item in our meetings. [...] But it allows for a lot of sharing of best practices. When we do new infrastructure projects, there's an easy ability to reach out to people who have gone through similar things. So if we're doing a field project, we can ask other schools about field projects or if we're doing work to our pool, or understanding what someone's done in their gym, we can get the benefit of knowing why and how they went about doing that. And so it becomes a network that we can draw on. There's lots of evidence as to how the decision at someone's institution has made everyone better by having to move to that new standard as well.

Other external communication strategies were also highlighted in the form of using digital media channels, such as departmental websites and social media platforms, abundantly and efficiently to promote and encourage ES engagement amongst stakeholders:

We used our website and social media to put forward news to demonstrate that was one of our [environmental] projects. We did the same when we changed our fountains...when it's something interesting we always want to communicate it with our folks. (Participant D)

Participant C echoed this strategy as a way to also support the ES practices that the institution was engaging in and a tool used to educate stakeholders:

If there's any initiatives that the Sustainability Office is pursuing, we'll push it out along our social media channels...because our social media is probably, other than the website, it's the highest traffic count so it's a lot easier to disseminate information.

Although external communication methods were not embraced by all participants, regular informational discussion ultimately encouraged the likelihood of pursuing ES for several athletics departments.

Relationship and Network Capacity

Three sub-themes emerged relating to relationship and network capacity: (1) institutional relationships; (2) collaborative relationships; and, (3) engaged young advocates.

Institutional relationships. Overall, participants indicated a strong awareness of the importance of institutional relationships aimed at increasing the commitment to ES. Notably, all participants indicated the need for a relationship with their university in order to engage in ES, and that their department was working with their institution, in one way or another, to pursue ES. Specifically, Participants B and D both declared:

There's a campus Sustainability Group. We meet with them. They have projects and they work with our events staff. [...] We're a very small part of a big university so wherever there's initiatives, we participate in them. (Participant B)

We worked with a councillor at the university to have more eco-friendly events.

She came just before the pandemic to see some events and then she proposed to us some of the things to do to improve our carbon footprint. (Participant D)

Additionally, Participant C noted that working together with the institution's sustainability unit was essential for ES pursuit as they provided the expertise and oftentimes extra financial support:

There does have to be an institutionally-driven part to this because athletics departments cannot be all things to all people. And, to be honest, generally they're underfunded. [...] So they can't be specialists on sustainability. They may look at 'what can we do now?' But, in terms of the long-term planning aspects of it, they're not environmental specialists so they have to rely on partners within the university to really help drive it.

Some participants acknowledged that they did not work with their university's sustainability unit enough to encourage ES practice within their department, although these participants recognized the value in collaborating with these groups of individuals. According to Participant K,

There obviously is the campus sustainability group that we would work with. [...] I would say we haven't used them enough. [...] I would think that it would only be helpful. Certainly helpful in terms of our facilities and our facilities group working with them; I would absolutely see that being very positive.

While not all departments had formally developed relationships to target sustainability, all participants spoke to the nature of the efforts made by their respective institution to work alongside their department to pursue ES action within athletics. Furthermore, the

benefits of building a relationship with the university-wide sustainability group was deemed critical to pursue ES action at the departmental level.

Collaborative relationships. Several participants spoke to the importance of not only taking direction from their university's sustainability unit, but ensuring this relationship was collaborative in nature. Some participants noted that what enabled ES pursuit as a department was their ability to provide input into ES projects put forth by the institution's sustainability unit:

Because we're a smaller university, our staff are able to give a lot of input into the projects. So through the Director of Physical Plant at the University, they would have a building committee and usually we'll have a person on that committee, so we do have input. (Participant G)

Further, some participants said regular interaction and communication was important in order to create positive work relationships between the department and the university's sustainability unit. As Participant A claimed:

I think we are lucky because of the relationship we've had with them...because we have people directly involved with them on a regular basis [...] I also think the relationship between the individual from our department and the individual from Physical Resources that manages the initiative, they already have a really strong work relationship, so I think that's helped it as well.

Participants acknowledged that collaborative relationships had formed between the department and the respected institution, but there was an apparent lack of collaborative relationships formed between the department and provincial and/or national athletics governing bodies. Some participants implied that firmer guidelines and policies set forth

by these governing bodies would further aid ES engagement as a department. As

Participant K indicated:

Everything that they can do to put down things that we as members need to adhere to can be very helpful. [...] There could be certain principles that when you want to host the national championship, these are the sustainability principles that you have to adhere to...and then they can be evaluated or there could be certain things they look for.

However, many participants suggested that ES was not part of the governing bodies' main purpose and therefore collaborative relationships with these groups did not appear to be the most genuine reason for engaging in ES efforts. Nevertheless, the collaborative relationships between the department and the respective institution's sustainability unit was deemed incredibly important to athletics departments because they offered financial support for ES action and provided valuable perspectives that they otherwise would not be exposed to.

Engaged young advocates. Overall, participants noted that climate change is a timely topic in sport and, as such, student advocates encourage the pursuit of ES.

Participant A stated that:

In 2007, our students advocated for stronger conservation measures on campus, and so a referendum was held, and students voted in favour of an \$11.19 student fee increase per semester to fund energy and water conservation methods on campus. [...] So the students are really invested in it as well.

Several participants spoke to the efforts of student athletes and young staff within their department in the development and implementation of their current ES strategies.

Specifically, Participant L noted that young employees were the driving force in the pursuit of ES practices, claiming that “Not to stereotype, but I would say some of our younger staff would seem to be more engaged and aware and conscious of different green initiatives versus some of the older staff.”

Additionally, Participant C shared that, as a result of environmental concern being a timely topic in sport, their department was able to engage in certain water efficiency strategies to meet the recent requests of their students:

I think generally, first of all our students, like for instance changing all of our water policies within our building to make sure we have water stations, and we eliminated plastic bottle purchases so that there were refillable stations, those types of things. Some of that comes from initiatives of our own students on our survey.

Participant C further noted that due to environmental knowledge of these engaged stakeholders, their athletics department felt that stakeholder pressure is becoming more involved in ES practices. He indicated that “the students coming up, they are a lot more educated, even from an elementary and high school component part on sustainability issues and so there’ll be pressure there.” Participant G echoed this point of view, and asserted that:

I think the students do [understand sustainability] because now that I think about it, a lot of environmental initiatives and stuff comes from the student council. We also have a varsity council and they've done some things that go towards environmental issues.

Overall, it appears that these athletics departments are engaging in ES efforts based on the drive of students and young staff within their organizations. A majority of the participants acknowledged that the pressure from these individuals has encouraged an immediate increase in ES action as a department.

Planning and Development Capacity

Two sub-themes emerged relating to planning and development capacity: (1) institutional strategy alignment; and, (2) strategic operational planning.

Institutional strategy alignment. Several participants said ES strategies of the department often followed the overarching environmental policies and goals of the institution. Participant J noted that: “a lot of the decisions that are made align with University practices.” Additionally, strategic alignment with the university was extremely important, as Participant I stated, “making sure that we are in line with the goals and the sustainability and environmental outlook of the University and the practices that are being supported by our Sustainability Office as well as our student body.”

Some participants admitted that they simply followed the direction of the institution and showed little enthusiasm to lead their own initiatives. These participants further acknowledged the need for more ES effort at the departmental level, with Participant G claiming, “we follow our policies from the University, but we could probably initiate more things in our Department.”

Overall, participants recognized that aligning with the institutions goals and plans was fundamental for ES action within the athletics department:

If this is going to become a priority of athletics departments within the bigger machines of universities, we have to strategically align. [...] The University has

absolutely put it as a priority pillar in their transformation 2030 strategic plan, which gives us an opportunity to ensure as we complete our 2030 plan, and of course we want to align with the University, that we could. (Participant K)

Generally, participants acknowledged that aligning with their institution's ES plans and goals enables more ES action at the departmental level as they provide strategic guidance and target objectives for ES.

Strategic operational planning. Overall, participants indicated a strong awareness of the importance of strategies aimed at increasing the ES engagement of the athletics department. Notably, all participants specified that their department was planning ES pursuits, in one way or another. While not all had formally developed ES-focused strategies in place, all participants spoke to the nature of the strategic efforts made by their department. Specifically, participants revealed that they were engaging in strategies that varied in formality and focus. Many participants noted that the majority of their ES strategies were embedded within other formal plans and strategies of the department. For example, Participant C explained that they included sustainability in their plans when considering new facility renovations, "if you're planning new facilities, we make sure we have contained any of the sustainability issues."

While much of the ES practices were subsequent to the operational plans of the department, some participants deliberately planned ES strategies as stand-alone initiatives:

Last year we switched to getting the ability to sell draft beer in recycled cups and we would take the cups back and they would get their deposit back to try and reduce the number of cans that were being sold. (Participant I)

Additionally, several participants discussed the importance of having a goal and future direction in long-term planning of ES. For example, Participant C described their long-term plans of carbon emission reduction and stated, “It’s always going to be part of the discussion in any of the planning component parts of it, because again, that sustainability action plan is part of that. We have targets to reduce our emissions by 2050.” Likewise, Participant E noted that when considering ES pursuits, it was essential to be mindful of the long-term effects in the planning stages:

What we are seeing now is that we can find those parallels if we do certain things, maybe we spend a little bit more upfront, but we invest in the technology that is better for the environment and in the long term it is going to return us more savings and more efficiency. [...] So as options like that become more available, the ability to pursue them makes more and more sense as well.

Additionally, many participants spoke to the need for creative thinking when implementing ES into their planning strategies, likely due to a lack of human and financial resources available. For example, Participant E said, “we have a responsibility to be creative and to recognize that when we make a decision about a facility or about how we operate our programs, if we can, plan it in a way that embeds [sustainability].” Although some participants had strategically implemented ES initiatives, there was no evidence of current formal strategic plans for ES embedded within the mission or vision of any athletics department. Participant L noted, “there is nothing that directly articulates [sustainability], but we do talk overall about the well-being of individuals and that does relate to that, but it’s not directly in our mission.” Some participants indicated they had a strong desire to develop new ES strategies to fit within a formal strategic plan while

others simply admitted they did not have the time or human capacity to prioritize such strategies, ultimately constraining effective ES pursuit. While the implementation of strategic plans to pursue ES did not seem to be a current priority amongst participants, strategic planning was nonetheless recognized as a key enabler for ES engagement overall.

CHAPTER 5

DISCUSSION

The purpose of this study was to investigate how athletics department personnel perceive and prioritize Environmental Sustainability (ES) as it relates to the purpose and operations of their athletics department, as well as the nature of the organizational capacity in athletics departments that restricts or enables ES pursuit. ES is still a novel consideration in sport however, the findings from this research uncovered that Canadian athletics departments are engaging in a variety of ES practices, experiencing various constraints in their pursuit of sustainability, and are driven to engage in ES efforts for a range of reasons.

This chapter will expand on the ways in which the findings support, extend, and/or challenge previous literature, which enhance the understanding, perspectives, and actions of SES. Findings are discussed in relation to the model by Hall et al. (2003) and explore the ES action of Canadian athletics departments with regard to the nature of each capacity dimension: 1) human resources, 2) financial, 3) infrastructure and process, 4) relationship and network, and 5) planning and development.

Human Resources Capacity

Human resources capacity refers to an organization's ability to deploy human capital (i.e., paid or volunteer individuals) in order to achieve its objectives (Hall et al., 2003). This dimension also includes the competencies, knowledge, skills, motivations, and behaviours of an organization's personnel. In previous literature, it is recognized that an organization's human resources capacity is its most important element necessary for

goal achievement (Hall et al., 2003), which was further supported by the findings of this study.

University athletics departments often operate with limited numbers of staff while attempting to accomplish numerous short-term and long-term objectives, even outside the context of ES. An insufficient number of staff ultimately appeared to constrain the ability to pursue ES and, in some cases, restricted the formation of an internal green team specifically devoted to planning and pursuing ES within the department. These discoveries build on previous literature that has noted that a shortage of staff resulted in a lack of financial management skills, insufficient time and development skills, and deterred strategic planning that subsequently hindered the capacity of sports clubs to achieve their goals (e.g., Doherty et al., 2014; Gumulka et al., 2005; Misener & Doherty, 2009, 2012; Sharpe, 2006; Svensson & Hambrick, 2016; Wicker & Breuer, 2011, 2013). This presents a challenge for Canadian athletics departments as these units often lack sufficient staff to strategically plan and delegate ES efforts efficiently, resulting in fewer efforts to pursue ES action. Nonprofit and amateur sport organizations often lack human resources (e.g., Danylchuk & MacLean, 2001; Misener & Doherty, 2013), and this constraint also presents a significant challenge to Canadian athletics departments to develop specific strategies that encourage the pursuit of ES, unsurprisingly affecting other areas of capacity (Hall et al., 2003). From these findings, one can conclude that sufficient human capital is essential for ES pursuit, further validating previous research of human resources capacity and goal achievement.

Within the Canadian intercollegiate athletics context, ES action was more apparent when staff showed high levels of personal enthusiasm, concern and passion for

the natural environment. These personal behaviours and interests of the staff members presented a clear benefit for athletics department's when considering pursuit of ES initiatives, drawing together the importance of individual passion and enthusiasm for enabling such action. This passion seemed to directly influence a department's culture and the overall level of ES engagement. Casper and Pfahl's (2012) work revealed similar findings, uncovering that personal values, beliefs, and norms are important to environmental perspective development, issue understanding, shaping perceptions, and taking critical action. Previous research has acknowledged that human resources capacity involves elements beyond the quantity of human capital, such as knowledge, creativity, and value of organizational goals (Hall et al., 2003). Of note, is Hall et al.'s (2003) lack of consideration for personal behaviour, passion, and intrinsic motivation as elements within the human resources capacity dimension of the model. These findings do however support the claim in previous literature, stressing the significance of human resources capacity beyond human capital (e.g., Andrassy et al., 2014; Doherty et al., 2014; Hall et al., 2003; Misener & Doherty, 2009), which could likely bring forward the recommendation for modifications to the current model to include personal passion and intrinsic motivation within the human resources capacity. Evidently, when people act pro-environmentally because they are intrinsically motivated, "change is much more likely to be sustained over time" (Van Der Linden, 2015, p. 613). Although, Bansal and Roth (2000) argue that managers deploy ethical environmental practices from the concern that organizations have expected social obligations to contribute to society, rather than out of pure self-interest or concern for the environment. In turn, employees' own environmental passion and their leaders' workplace pro-environmental behaviours can

influence overall workplace pro-environmental behaviours (Robertson & Barling, 2013), which plays an important role in the pursuit of ES action within a Canadian intercollegiate sport context.

The current study found evidence that supports a need for legitimized responsibility when a department pursues ES action. In many cases, it was the Head of Athletics or the staff member responsible for the athletic facilities (e.g., Facilities Manager, Facilities Operator, Facilities Director) who led the majority of environmental initiatives within the department. This is likely due to the nature of the ES action being highly associated with facility functionality (e.g., LED lighting, water conservation, heating/cooling etc.). The individual responsible for the ES initiatives within athletics also liaises with and follows guidance from individuals working within their institutions' centralized sustainability unit in order to successfully implement and pursue ES action. These findings build on existing evidence of the importance of collaborative processes across university units (Evangelinos & Jones, 2009; Graedel, 2002; Poncelet, 2004). Collaborating with one's institution grounded by environmental concern has an ability to facilitate organizational change towards more sustainable operations, eco-efficiency, cost savings and revenue opportunities for university athletics programs (Casper et al., 2012). It is especially important for Canadian athletics departments to do so in order to overcome the constraint of limited human and financial capital (Danylchuk & MacLean, 2001; Misener & Doherty, 2013). Although a centralized sustainability group was frequently initiating ES action, it is vital to have designated personnel from the athletics department to efficiently coordinate and liaise with these centralized groups to enable the pursuit of ES action that is specific to the athletics department. Further, it appeared that

the athletics department's environmental liaison was responsible for planning, leading, and executing environmental initiatives alongside their general operational duties. For this reason, it is not surprising that their expertise and availability to learn more about ES is limited due to the smaller number of staff and demanding workload of their position (Casper & Pfahl, 2015a).

The need for ES knowledge amongst athletics staff in order to effectively enable ES action as a department was deemed critical. It is clear that the development and pursuit of ES actions are enabled and constrained by the level of environmental awareness and knowledge of the individuals involved (Casper et al., 2012). These findings support previous research confirming the need for human capacity beyond human capital, and that ES goal achievement is dependent upon the nature of ES knowledge among individuals leading the action (e.g., Hall et al., 2003; Misener & Doherty, 2009). Understanding how to plan and make decisions regarding key factors of sustainable practices is critical in order to understand environmentally related actions and outcomes (Poncelet, 2004).

A majority of individuals involved in ES within the athletics departments had no formal educational background in the field of environmental science and/or sustainability. With ES knowledge notably deemed essential to enable ES action, it would appear that the implementation of educational opportunities for ES is appropriate within Canadian athletics departments. Such knowledge can be acquired from various educational outlets such as conferences, workshops, and presentations, which are led by third party environmental experts or experts working within the institution's sustainability unit (Casper & Pfahl, 2015a). Many participants acknowledged and

encouraged participation in these opportunities provided by their institution and agreed they improve their departments overall understanding of the subject and increase their ability to pursue ES action. Further, this study supports the notion that ongoing learning of ES is necessary to plan efficiently and combat climate change through long-term ES action. This finding resonates with Fenwick's (2007) conclusions that "a focus on learning can help foster understanding and active participation in sustainable practices within and among work organizations" (p. 643). This brings to light the importance of knowledgeable staff and continuous education when it comes to the level of ES engagement Canadian athletics departments are able to pursue.

Financial Capacity

Financial capacity refers to an organization's ability to strategically manage financial resources including revenues, expenses, assets and liabilities (Hall et al., 2003). The findings presented a lack of financial resources within Canadian athletics departments, which constrains the ability to pursue ES independently as a department for some. A limited departmental budget was declared one of the primary reasons why Canadian athletics departments did not have an ability to pursue major ES action independently, such as facility renovations or construction of new LEED certified buildings. The concerns regarding limited financial capacity opposed the findings of previous research on community sport clubs, which found financial capacity was not perceived as a crucial element to goal attainment (Misener & Doherty, 2009). However, in a Canadian athletics department context, financial constraints can limit the implementation of sustainability initiatives within the department due to competing

priorities for limited resources (i.e., funds), and the long-term savings of these projects are not typically accounted for when developing the budget (Wright 2010).

Although major actions were unlikely to be pursued by many of the athletics departments due to a limited departmental budget, formalizing a link between ES action and general operational goals proved beneficial and sustainability became integrated into operating budgets by initiating efficient operating procedures (e.g., LED lighting). Regardless of whether ES is recognized within the budget independently or intertwined with operational targets, the need for sufficient funds is essential for the pursuit of ES action. Indeed, strategic implications of sustainability reach beyond individual changes, isolated environmental practices, and environmental policies, but require further adjustments to financial systems to support such action (Ryan, Tilbury, Corcoran, Abe, & Nomura, 2010).

While financial resources are deemed to be limited, a majority of athletics departments in Canada seek outside assistance and rely on alternate sources of revenue in order to attain additional financial resources to support their department's ES action. This contributes to a clearer understanding of the financial capacity of Canadian athletics departments (e.g., Babiak & Thibault, 2009; Danylchuk & Grbac, 2016; Danylchuk & MacLean, 2001; Geiger, 2013). Consistent with Gumulka et al. (2005), having access to and using alternate sources of revenue, such as funds from the institution and government grants, was deemed a critical element enabling ES action, while failing to take advantage of these sources posed as a constraint for Canadian athletics departments. Revenue diversification and resource acquisition can allow sport organizations to achieve organizational objectives (e.g., Wicker & Breuer, 2011, 2014), including the pursuit of

ES action. Recognizing a need for alternate sources of revenue can build a more reliable and stable income to support additional ES action, particularly for large scale initiatives (i.e., facility renovations) (Doherty et al., 2014).

With limited access to financial resources, Canadian athletics departments require innovative spending strategies in order to successfully pursue ES action. The limited funds encouraged creative financial management techniques, which, in turn, appeared to enable environmental action for most. Given that amateur sport organizations (e.g., intercollegiate sport) often lack resources (e.g., funds) (e.g., Danylchuk & MacLean, 2001; Misener & Doherty), initiating creative spending behaviours can be beneficial in providing Canadian athletics departments with additional opportunities to increase ES action while working within a limited budget.

This study provides new insights into the financial capacity of Canadian intercollegiate athletics and the area of SES. In short, innovative budgeting and environmental stewardship are often connected. This should be considered when pursuing ES action, as the outcome of innovative economical decision-making is likely to result in more environmentally friendly operations instinctively. Therefore, it is imperative that Canadian athletics departments attain financial capacity through means of strategic financial management skills (Hall et al., 2003), in order to foster more ES action and promote positive ecological change.

Infrastructure and Process Capacity

Infrastructure and process capacity refers to an organization's ability to initiate and deploy internal operational efforts, including aspects related to internal structure and day-to-day operations (e.g., culture, policies, and procedures) (e.g., Doherty et al., 2014;

Misener & Doherty, 2009). Pressures to operate sport facilities in more environmentally conscientious ways has led to increasingly innovative means of facility management in order to exhibit sustainable initiatives (Kellison, 2015). Evidently, athletics departments are eager to adopt more sustainable practices through facility design and management. These findings build on Kellison's (2015) work that noted a growing number of leagues and teams are aiming to do the same. More recently, industry standards and systems have been implemented to drive advances in ES and facility design, and the findings of the current study suggest green buildings and facilities that meet LEED certifications undoubtedly aid the environmental efficiencies of athletics operations (Mallen & Chard, 2012). By meeting these standards, Canadian athletics facilities and stadiums typically demonstrate efficiency in several different categories, including site selection, water use, energy consumption and emissions, materials and resources selection, and innovation in design and operations (Kellison, 2015).

Many athletics departments recognize the importance of such action and certification achievement, however attaining accreditation is doubtful due to the high costs of facility renovations and the construction of new buildings. This presents a challenge for athletics departments as these units lack the financial autonomy to independently incorporate operational efficiencies of their facility design, causing less pro-environmental procedures and may further restrict or constrain ES abilities for the department. While attaining LEED certification may be an effective strategy to operate more sustainably, it also introduces significant financial capacity challenges for Canadian athletics departments as they seek to secure the money to attain such certification.

Athletics departments that adopted sustainability within their department's informal cultural norms likely occurred because ES was recognized and valued within the greater scope of institutional goals. Adopting environmental values was acknowledged as an enabling factor for engaging in ES practice within the department, likely because this created a departmental framework that allowed leaders of athletics department to instill and promote ES actions more legitimately (Andrassy et al., 2014). The impact of culture on goal achievement has been discussed in previous literature. According to Mallen and Chard (2012, p.238), "the overall leadership role in ES includes establishing a working culture that values ES, encourages awareness of ES, institutes ES in practice and supports the development of innovations in ES." The findings of the current study further support Andrassy et al. (2014), who concluded that the value of organizational culture by internal stakeholders played a critical role in the ability to achieve organizational goals, despite their limited financial capacity. However, incorporating ES into the culture becomes difficult for Canadian athletics departments as they are often driven by athletic and recreation programming opportunities, goals, and objectives that usually align more closely with providing and supporting athletic opportunities (Pfahl et al., 2015), with environmental concerns being a lesser priority. While culture was vaguely discussed as a possible enabling factor, the presence of environmental concern within the department's culture was not perceived to create a significant influence on the overall ES goal achievement for Canadian athletics departments.

There is very little internal communication concerning ES amongst Canadian athletics department staff as well as between the athletics department and the institution's sustainability unit. This is consistent with the findings of Casper et al. (2012), who

concluded there had been a lack of communication between the athletics department and the university discussing the ES plans of the university. In the current study, the departments with the most extensive and consistent internal communication had multiple means of communication and those who discussed ES within the departmental unit more often reported significantly more ES engagement than those who did not discuss the subject. This supports the importance of clear and frequent internal communication through multiple channels (e.g., email, in-person meetings, etc.), and the critical role of communication processes within sport organizations for goal attainment (Doherty et al., 2014). The need for improved internal communication systems requires that Canadian athletics departments engage in planning efforts to strengthen its infrastructure capacity (Svensson & Hambrick, 2016).

External communication is deemed extremely beneficial for Canadian athletics departments, enabling the pursuit of best environmental practices, and an opportunity to educate all stakeholders on important environmental issues. Although not being pursued by all departments in this study, the notion of adopting best ES practices from other athletics departments across Canada was discussed as a possible enabler of ES action. This supports previous research that argues interpersonal channels are the most common way of communicating and are extremely effective in the process of adopting a new idea or product (Kellison & Hong, 2015). Frequent and open communication and feedback opportunities amongst stakeholders (e.g., third-party environmental experts, or other university athletics departments in Canada) can identify new problems, generate new ideas, and form effective solutions for environmental issues and challenges (Fenwick, 2007) for Canadian athletics departments.

For some, external communication strategies in the form of digital channels, such as departmental websites and social media platforms, were used abundantly and efficiently to promote and encourage ES engagement amongst stakeholders. These findings support Fenwick (2007) who found that “the fostering of personal encounters and relationships among individual employees and representatives of community, suppliers, and clients for information sharing and response helped to generate new practices, raise useful questions, and motivate employees’ ES commitment” (p. 643). The need for strategic ES communication strategies is crucial to maintain the image of the department and better align with the institution’s environmental goals as key community actors (Geiger, 2013).

While communication strategies such as environmental marketing campaigns can be beneficial to ES strategies, these campaigns can often lead to overstating ES performance and make Canadian athletics departments appear as though they are more environmentally cautious than they actually are; also known as greenwashing (Orr et al., 2019). More formalized and consistent communication of ES planning and action is recommended moving forward as these communications are effective in conveying ES efforts, avoiding greenwashing accusations, earning credibility among environmental groups and community members (Kellison, et al., 2015), and consistently pursuing the most effective environmental action. As Lawler and Worley (2011) noted, organizations that proclaim their concern for the environment and support for ES by developing marketing campaigns to communicate this to the public but fail to fully change their operational behaviour may be viewed as hypocritical and, thus, fail to maintain trust with stakeholders. The need for improved and reliable communication with external

stakeholders requires Canadian athletics department leaders to engage in planning efforts to strengthen such communication and therefore attention in other areas of capacity (i.e., planning and development capacity) is necessary. This raises complexity issues for Canadian athletics departments due to a lack of time and human resources available to accommodate such planning.

Relationship and Network Capacity

Hall et al. (2003) define this dimension as the ability of an organization to draw on relationships with external groups such as clients, members, funding agencies, partners, government, media, and the public to achieve their goals. One way to further sustainability efforts is to increase collaborations between institutional departments such as the athletics department and the university's centralized sustainability unit (McCullough, 2015). A majority of Canadian athletics departments are working with their institution, in one way or another, to pursue more sustainable operations. While not all departments had developed formal relationships to target sustainability, efforts made by institutions to work with athletics departments in order to pursue ES action was paramount. This is a fairly common trend in intercollegiate athletics, as athletics departments actively collaborate with university personnel, largely based on the assumption that these persons possess more environmental-specific knowledge (e.g., McCullough et al., 2018). Athletics department personnel may lack the environmental knowledge, skills, or training to identify and act upon environmental issues properly, making it essential that they collaborate with other university units or risk disregarding university sustainability initiatives (e.g., Casper et al., 2012; Casper & Pfahl, 2015a; Hart, 1995). Finding green partners (e.g., university sustainability units) to help facilitate

organizational changes also offers a new revenue source and possible fan engagement opportunities (e.g., Casper et al., 2012; McCullough & Cunningham, 2010; Pfahl, 2013) for athletics departments across Canada.

As such, several benefits await athletics department that build relationships with a university's sustainability group, and the formation of university-wide relations are critical in order to pursue ES action at the departmental level. Previous research noted that developing relationships with groups that share an interest in environmental concern has the ability to facilitate organizational changes towards more sustainable operations, cost savings, and revenue opportunities for athletics departments (Casper et al., 2012), and it is important to note the same is true for athletics departments in this particular context. Although there is potential, there is no guarantee that every collaboration will form a pro-environmental relationship, therefore attention must be given to proactive relationship development for continuous growth in the area of sustainability to occur (e.g., Casper & Pfhal, 2015a) within Canadian university athletics departments.

Moreover, athletics departments are important members of many university campus communities and are increasingly expected to link with other institutional units to address and participate in university-wide environmental goals and objectives (Casper et al., 2012; Inoue & Kent, 2012; Jin et al., 2011). It is important to note that the formation of university-wide relationships must be collaborative in nature in order for valuable ES engagement to occur. The ability of athletics departments to provide input and have an equal voice into ES projects proposed by an institution's sustainability unit enables department-level ES pursuit. As well, regular interaction and communication is significant in order to create positive work relationships between university units, further

emphasising the importance of infrastructure and process capacity. Grounded by communication theory, individuals involved in a collaborative effort have an ability to co-create understandings of each other, develop shared goals and objectives, and work to find effective solutions to situations they face (e.g., Amey, 2010; Casper et al., 2012; Casper & Pfahl, 2015a; Hartman, Hofman, & Stafford, 2002; Pfahl et al., 2013).

It is important to note that a majority of the collaborative relationships formed out of efforts from the university's centralized sustainability unit to work with other university units, and not the opposite. The lack of outreach by athletics department personnel in this context is an interesting discovery as it suggests that environmental issues are not yet a significant priority of Canadian athletics departments' strategic planning (Pfahl et al., 2015), but the assistance, support, and communication from sustainability personnel is welcomed by these departments. Although the sustainability unit often controls a majority of the university-wide planning, execution, and post-initiative follow-up (McCullough, 2015), relationships of a more collaborative nature allow for shared responsibility of ES action across all university units. Further, such relationships encourage ES pursuit and acknowledges the specific operational needs of athletics departments. With all of the tasks facing both sustainability and athletics department personnel, the communication of expectations and plans is vital to the success of any ES action (Crowe, 2015).

Collaborative relationships between the department and provincial and/or national athletics governing bodies are lacking. This is likely due to an absence of mandates and policies regarding ES by governing bodies, as well as overall missions solely targeting student leadership and athletic excellence (Atlantic University Sport. n.d.; Canada West,

2019; Ontario University Athletics, 2014; Réseau du sport étudiant du Québec, 2019; U Sports, 2019b). As such, it is perhaps not surprising that the governing bodies of intercollegiate sport in Canada did not form such relationships with their acting members, within an ES context.

Canadian sport organizations are experiencing increasing pressure from stakeholders to become more sustainable, including youth (Canada Games Council, 2019; Sarkar, 2008; Wall-Tweedie & Nguyen, 2016). Canadian university athletics departments are learning that they can engage in ES efforts using the motivations of students and young staff within their organizations. A majority of the participants acknowledged that the influence from these individuals has encouraged an immediate increase in ES action in a department. According to the Natural Resources Defense Council (2013, p.10), “driven by student demand and university commitments to sustainability, college sports are joining all major professional sports leagues to send stronger environmental signals to society and the marketplace.” Environmental leadership can also enhance public image within the sport sector and can further provide athletics departments with improved financial capacity through increased student recruitment and through the financial savings attained from environmental efficiencies (e.g., Casper et al., 2012; Orr et al., 2019; Rogers, 2016). Students are entering post-secondary institutions with more awareness and knowledge of environmental issues and young sports fans are increasing their awareness of the environmental impacts of sport (Pfahl, 2015), evidently posing as an enabling factor for ES action of Canadian athletics departments. Thus, it is important for Canadian athletics departments to respond to these pressures by working with the university to

engage with young pro-environmental advocates to produce vital change to the sport industry.

Planning and Development Capacity

Planning and development capacity has been recognized as one of the biggest factors to influence the overall achievement of organizational goals in a sport context (e.g., Gumulka et al., 2005; Misener & Doherty, 2009, 2012; Svensson & Hambrick, 2016). All athletics departments understand the importance of planning for ES and acknowledge that aligning with their institution's ES plans and goals enabled more ES action at the departmental level, as they allow for strategic guidance and target objectives for ES. Aligning with the objectives of the institution, Canadian intercollegiate athletic departments are key community actors (Geiger, 2013), and can influence large numbers of students, athletes, and fans, all of whom play a pivotal role, individually and collectively, in the shift towards more environmentally sustainable living.

The collective impact of such activities is potentially significant, offering opportunities in the area of sustainability that not only benefit our planet, but also have the potential to positively affect the brand of Canadian universities and their athletics programs. However, these opportunities require extensive planning and commitment, both short- and long-term, which may be difficult for some Canadian athletic departments due to human resources capacity restrictions. Recognizing and developing a common agenda between the athletics department and university sustainability unit requires an effort from each department to mutually understand and appreciate each other's differences (McCullough et al., 2018). By strategically working and aligning with the institution's objectives, athletics departments are able to bring environmental issues to the

forefront of athletics department planning (Pfahl et al., 2015), and facilitate the development and implementation of detailed strategies to pursue departmental ES action.

All participants spoke to the nature of the strategic efforts made by their department, although not all had formally developed ES-focused strategies in place and several strategies were embedded within other formal plans of the department. The imbedded nature of such action resulted in only occasional ES engagement from the department. Further, a majority of athletics departments' ability to strategically plan for ES was not effective because they were not prioritizing ES action within their planning strategies, likely due to focused attention on other day-to-day operations, lack of human resources, and lack of time (e.g., Doherty et al., 2014; Misener & Doherty, 2009). In addition, Casper et al. (2012) advise that "without a clear plan in place, athletic departments are unlikely to maximize the potential of their green efforts" (p. 21), thus there becomes a demand for more ES effort at the departmental-planning level. The findings support the need for athletics personnel to address environmental issues from a strategic planning approach more explicitly as this drives the objectives, tactics, and measures required to contest environmental issues as well as the entirety of a sports organization's environmental impact (Trendafilova et al., 2014).

The athletics departments in this study appear to be pursuing ES by following the mandates and guidance of their institution. However, if their sustainability strategies are not being driven by a genuine desire or strategy within the department, they are not likely to materialize or have a significant influence on ES engagement for athletics departments (Casper et al., 2012). Participants claimed that ES pursuit within their department was a priority however, these initiatives were often not driven by a formal strategy and, as such,

were not reflective of the department's broader strategic plan (i.e., Aaltonen & Ikävalko, 2002). In order for strategic planning to effectively increase the capacity for ES engagement, the various elements of strategic planning (i.e., mission, strategies, budgets, and control) must be addressed thoroughly. Strategic planning is a common way to overcome goal achievement challenges (Eisinger, 2002), through minimizing uncertainty while promoting stability and future growth towards more sustainable sport operations (Casper et al., 2012). Due to Canadian athletics departments' extensive impact on the environment, it is critical that sustainable sport development is achieved through sustainable operational planning and management strategies in order to achieve long-term environmental goals (Crowe, 2015). As such, it is perhaps not surprising that athletics departments in the current study developed relationships with their institution in order to assist their department with facilitating strategic sustainability plans and enable ES engagement within the department.

Research to date in other sport contexts suggests that planning and development is only just beginning to be recognized as an important dimension. However, in a Canadian athletics department context, there is a fundamental need for ES planning, the creative nature of such planning, and the implementation of such plans. This fundamental need is critical to the capacity of Canadian athletics departments to pursue and achieve their ES goals.

CHAPTER 6

CONCLUSION

This research aimed to explore the organizational capacity of Canadian intercollegiate athletic departments to engage in environmentally sustainable operations. Through semi-structured interviews, this study is the first of its kind to investigate the ways in which Canadian university athletic directors perceive their department's involvement in ES initiatives. The findings contextualize the nature of their human resources, financial, infrastructure and process, relationship and network, and planning and development capacities that enable or constrain ES pursuits. It can be concluded that ES action is complex and involves the interplay of a number of organizational capacity dimensions, which are likely university-specific depending on the size and location of the university as well as the organizational structure. Direct attention must be given to all five capacity dimensions of athletics departments to attain ES goals.

The contributions of this research add to the literature of SES through the application and as an extension of Hall et al.'s (2003) organizational capacity framework. In essence, identifying the challenges and enabling factors of ES action enhances the model thus providing evidence for the framework and its use in future research of organizational capacity in other settings. It is important to note that differences in capacity may be expected based on organizational context, and several findings that appear to be unique to the Canadian intercollegiate sport setting of the current study were uncovered. Further, the findings provide additional insight into the nature of the interactions among the dimensions in this particular sport context. The constraints faced by the athletics departments in this study demonstrate the need for additional SES

research by further examining these concepts and the process of capacity building in order to enhance and understand the process of organizational capacity and ES.

Practical Implications

This study offers a number of practical implications for Canadian athletics departments when discussing and establishing potential environmentally sustainable operational changes. First, departments seeking change need to incite and act on their staff's awareness, passion, and knowledge of ES. In this study, specific factors in the context of personal knowledge and passion were identified that explained why some athletics departments showed more concern for ES and perhaps why more action was being pursued by some and not others. Thus, departments seeking change should consider personal concern and awareness when attempting to address the need for ES action.

Second, organizations need to advance ES action by recognizing and limiting resource restrictions such as human capital, finances and infrastructure (Doherty et al., 2009; Hall et al., 2003). For instance, participants anticipated resistance to the pursuit of ES due to limited funding for such action (e.g., new ES facility renovations, or green athletic events). In response, organizations need to seek and involve internal and external stakeholders (i.e., students, players, governing bodies) to assist with these unavoidable deficits. One suggestion of improving stakeholder involvement in order to limit resource restrictions is a strong focus on educating and communicating key ES initiatives and environmental goals of the department. As discussed by participants, ES engagement may be more attainable if stakeholders are more involved, educated, and fully understand or appreciate the benefits of such initiatives (Danylchuk et al., 2016; Hall et al., 2003).

Third, as athletics departments acknowledge a need for potential change, the role and presence of an environmental liaison is essential. As findings showed, in order to move forward with ES initiatives, it is imperative to appoint specific personnel to take charge, be passionate about advocating ES as well as have the desire to generate such change. Further, it was discovered that liaisons within the athletics departments often balanced environmentally related tasks on top of their day-to-day responsibilities, therefore the need for a group of environmental liaisons (i.e., green team) within an athletics department should be considered. The establishment of such a unit could allow for more creative environmental ideas, appropriate task delegation and more legitimized efforts towards ES initiatives as they would strategically approach, support, and lead potential ES initiatives together, and link with other units within a university.

Last, in order to sustain the change and continue to operate more pro-environmentally, Canadian athletics departments should formalize new initiatives through policies and program design mandates. This would aid the short and long-term strategic planning processes ensuring athletics departments are operating in the most environmentally friendly way they possibly can.

Managers and organizations need to continue to recognize the unique challenges within their organizations, encourage and support ES practices, while continually adopting a strategic plan to formalize and sustain environmental change. More broadly, institutions such as universities have the ability to influence mass numbers of students, athletes, fans and community members (Casper et al., 2012), all of which play a pivotal role in the shift towards more environmentally sustainable living. As industry leaders, it is essential for Canadian university athletic departments to adopt a more sustainable

approach and urge the reduction of their ecological footprint if we are to preserve ecosystems and life on earth. To conclude, athletics departments may be better prepared to face challenges of potential ES change by considering the nature of their capacity to do so and focusing their resources and strategies for better implementation of future environmental action.

Limitations

Several limitations exist in the current study which are important to identify. First, the phrasing of Research Question #1 that queries how do participants perceive and prioritize ES assumed that those individuals who would respond to the call for research participants were from athletic departments who were already engaging with ES. This limited those university athletic departments that may not be engaging in ES at all. Second, given that climate change is a significant topic of global importance and organizations want to be perceived as contributing to ending climate change, participants may have overstated their ES contributions to portray their university in a positive light, and so, perhaps the researcher was unable to get a full representation of what exactly athletics departments were or were not doing to pursue ES action. Third, the selection criteria for this study obtained the perspectives from those in leadership positions in athletic departments. There are, perhaps, others (e.g., facility managers or those within the university's centralized ES group) who could also provide context and insights on ES pursuit in university athletics departments and would be worthwhile to explore in future research. Fourth, the method chosen for data collection (i.e., telephone interviews) also had its limitations. Being unable to detect the facial expressions or body language of participants is a limitation to this method of data collection. It is possible that some of the

participants used sarcasm that the researcher was not able to detect as she was not able to see them. Finally, given the variable nature of universities and their athletics departments, the findings of this research only speak to the experiences of the individuals from Canadian athletics departments who participated in the study.

Future Research

Despite the growing number of studies related to SES, several gaps still remain in the literature, which present opportunities for future research. First, future research should continue to examine organizational capacity in the Canadian intercollegiate sport context, particularly focusing on the external influencing factors presented in Hall et al.'s capacity framework including: environmental constraints and facilitators (e.g., legal and regulatory frameworks, public trust, societal values), access to resources (e.g., financial resources, human resources) and historical factors (e.g., past behaviours, ethical violations, perceived contributions) (Hall et al., 2003). By deploying Hall et al.'s framework in full, researchers will likely begin to uncover the ways in which capacity building can take place in this particular context. Second, environmental goals, objectives, and strategic implications (e.g., environmental data collection, green teams) appear to be lacking within Canadian athletics departments and seem to emerge from other sustainability units on campus. Future studies could investigate the association between the sustainability unit and athletics departments with regard to ES pursuits to better understand the nature of such relationships and its impact on ES action. Third, the majority of respondents were athletics directors, but not all. The smaller staff size of Canadian athletics departments means that other athletic personnel are often involved in environmental work to some degree. In and of itself, this situation is not a concern, but

future studies should work to examine other athletics personnel (i.e., facilities manager) to better understand the nature of the roles and responsibilities of these staff as their personal perceptions and knowledge levels are important but must be understood in relation to the capacity of ES action (i.e., decision making) (Casper et al., 2012). Finally, the current study found that personal desire, concern, and passion for the environment appeared to influence ES action as a department. Future research should further develop and confirm these initial findings by exploring intrinsic motivation and ES action at the departmental level.

This research has offered discoveries in the area of SES and informs scholars of current capacities (or lack thereof) to execute ES efforts within a Canadian intercollegiate sport context. Further, this research has expanded the current literature and broadened the practical knowledge of SES, exercising Hall et al.'s (2003) conceptual capacity framework. As industry leaders, it is essential for Canadian university athletic departments to adopt a more sustainable mentality and urge the reduction of their ecological footprint if we are to preserve ecosystems and life on earth. By understanding the nature of the capacity to do so, this study provides the foundation for these leaders to pursue environmental action, in an effort to save the planet from further irreversible damage.

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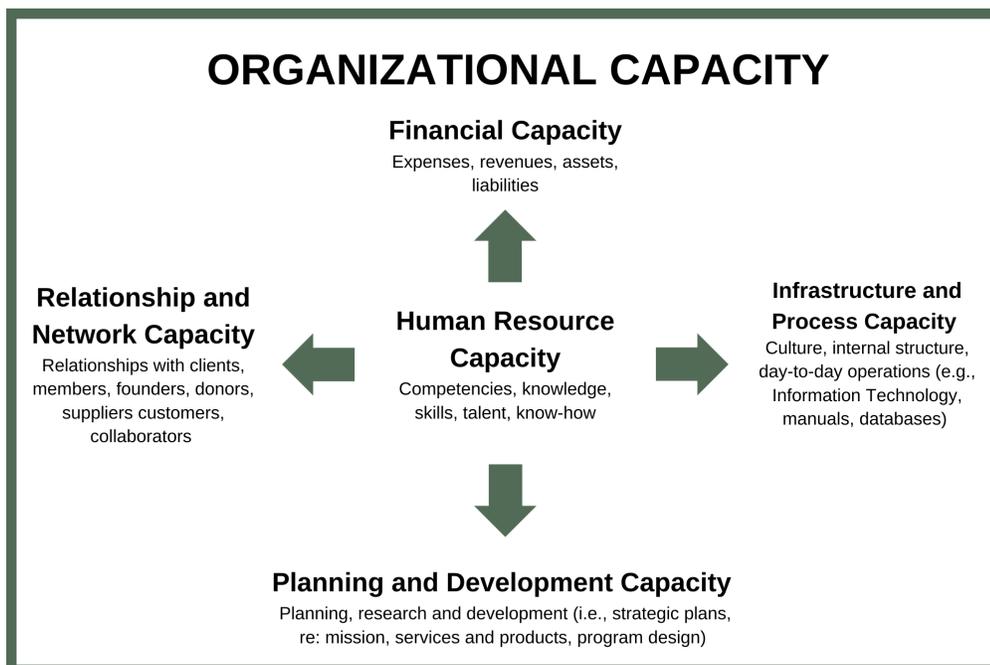
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APPENDIX A



Conceptual Framework

APPENDIX B

Interview Guide

Background.

1. What is your role within the organization?
2. How long have you been in this role? How long have you been with [institution]?
3. Can you describe your involvement with this organization? [in what ways are you involved with day-to-day operations with the organization?]

Environmental Sustainability.

4. Can you tell me about your understanding of your environmental sustainability?

Prompt: [What sort of knowledge do you have of ES? Do you possess any educational background/experience in the subject area?]

5. How do you perceive your paid staff and volunteers' competencies, knowledge, attitudes, motivations and behaviours of ES?

Prompt: [Are all staff aware of the critical importance of ES? Is there access to recourses to improve knowledge of staff members? Do staff members show evidence of environmental concern? Does any staff members or department partake in training or environmental certification initiatives (i.e. attending conferences, LEED)]?

6. How would you generally describe the perspective of the key decision makers in the Athletic Department when it comes to environmental initiatives?

Prompt: Do they recognize the need for ES in the department's operations, plans etc.?

Is ES a topic of discussion amongst employees in the department?

7. In your opinion, is environmental sustainability important to facilitate through your Athletic Department's operations?

Prompt: Are you already doing enough? Do you find yourself thinking of ways to make the department's operations more environmentally friendly? Do you aim to educate stakeholders on the issue? Do your stakeholders' opinions of your ES actions affect ES decision making?

8. Organizationally, can you expand on which individual or group is primarily responsible for developing sustainable operations for the Athletic Department?

Prompt: Do all decisions made come from the AD? Does each branch of the department facilitate their own guidelines for ES? Is ES awareness known amongst department branches?

9. Please describe how your Athletic Department is prioritizing environmental sustainability initiatives.

Prompt: How often do you discuss the departments ecological footprint? What members of the department are involved in these conversations? Are there dedicated events for educating fans on green initiatives?

10. Can you elaborate on any environmental sustainability initiatives or goals within the mission/vision of the Athletic Department?

Prompt: Are they clearly written? Has there been any recent changes to your mission? Is your mission clearly addressed to all staff and fans? How/Where?

11. Can you describe any development of formal strategic sustainability plans specifically for your Athletic Department with short-and long-term objectives?

Prompt: New facilities, new programs, new education, educational social media strategies?

12. Looking to the future, how do you see the emphasis on environmental programs in your Athletic Department changing?

Prompt: More emphasis on developing plans, integrated into mission and values, altered facility management strategies (i.e. more sustainable design)

13. Are environmental sustainability initiatives recognized within the Department's budget? Prompt: Why do you think they are or are not?

14. Can you describe any partnerships that the department utilizes to foster environmental sustainability activities or operations?

Prompt: i.e. institution and their ES policy, sponsors, third party ES company, data collectors

15. What is the nature of sponsors/partnerships in relation to value or intentions of environmental sustainability?

Prompt: Do you partner with any outside organizations on the basis of fostering more pro-environmental operations? Is ES a priority when looking to attain new sponsors and partnerships?

16. What barriers would you suggest are restricting your Athletic Department from pursuing environmental sustainability practices more regularly.

Prompt: human capital, finances, knowledge, policies restricting action?

VITA AUCTORIS

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