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RESEARCH ARTICLE



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Integrating First Nations peoples' cultural capital for sustainable development

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Abstract

First Nations peoples occupy one-quarter of the world's land area, safeguarding 80% of its biodiversity. Sustainable development frameworks acknowledge and include culture's role but fail to give it a special place, specifically First Nations peoples' (Indigenous) cultures. Hence, this study presents a sustainable development model that recognises their cultures—the underlying motivation is that adopting the United Nations Sustainable Development Goals (UN SDGs) as the 2030 Sustainability Agenda for these peoples' cultural capital development has posed two challenges. First, the goal-related targets and indicators are objectified, encouraging these to be attained as separate goals, but since First Nations cultures are based on relationships and interconnectedness, thinking linearly about these goals misaligns with these cultures. Second, these targets and indicators are not framed to provide special recognition and inclusion of these peoples' cultural knowledge as crucial for sustainable development. Therefore, this study uses the Gaia theory, the theory of distributive justice and the interaction theory of First Nations cultures to propose an empirically testable structural equation model for analysing empirical data using the UN SDGs as goal posts, towards advancing sustainable development. A model application is proposed for non-governmental organisations serving First Nations peoples. The integrated model shows the interrelationships between various types of capital, including these peoples' cultural capital, required for sustainable development.

KEYWORDS

culture, First Nations people, Gaia theory, indigenous people, non-governmental organisations NGOs, sustainability, sustainable development, theory of distributive justice

1 | INTRODUCTION

In the neoclassical economic model that most countries follow currently, moral consciousness has been incorporated gradually, which makes firms respond to communities' ethical expectations about sustainable development. In contrast, in typical classical market economies, market forces are free to operate, and firms and consumers may pay little attention to moral consciousness in terms of

supporting sustainable development. Moreover, profit-making firms can vigorously lobby against sustainable development—which promotes moral consciousness—if it hurts their profits (Chang & Andreoni, 2021). Conversely, in the sustainable development approach, sustainable development can thrive if firms become more accommodating of moral consciousness, even if they must accept a loss of earnings for doing greater social good (Dolderer et al., 2021).

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Corporate history has shown that in classical and neoclassical economic models, increasing moral consciousness requires a degree of regulatory intervention. These economic settings put earnings as the foremost organisational goal and investors and creditors as the most valuable stakeholders. However, a regulatory intervention must not become a bureaucratic hindrance to capital growth, but rather, a catalyst while upholding moral consciousness towards sustainable development (IPCC, 2021; Mendiluce, 2021; MetOffice, 2021).

Although sustainability is a universal objective, sustainable development requires a contextual place-based and people-based orientation. People can hold different values in different geographical places, and effective, sustainable development requires connecting with such values (Knox-Hayes et al., 2020). For instance, some societal cultures are sustainability-friendly—those predominantly influenced by Buddhist philosophy aim to attain moral and spiritual awareness through sustainable development (Becker & Hamblin, 2021; Matz, 2002). In particular, the cultures of First Nations (Indigenous) peoples have a special place in sustainable development. They are the first-known inhabitants of a country. According to the World Bank (2022), they are culturally distinct societies and communities. There are about 370–500 million First Nations peoples spread over 90 countries, representing 5% of the global population. These peoples have strong identities, livelihoods and physical and spiritual wellbeing. They inseparably identify themselves with land and natural resources. They occupy and use one-quarter of the world's land area, safeguarding 80% of its biodiversity. They are central to the practice of sustainable development for achieving the sustainability agenda.

In this regard, there are two concerns about using the United Nations Sustainable Development Goals (UN SDGs) as the 2030 Sustainability Agenda for First Nations cultural capital development. First, the targets and indicators associated with UN SDGs are objectified to attain them linearly. However, First Nations peoples' cultures are based on relationships and interconnectedness and thinking linearly about these goals misaligns with these cultures. Second, the UN SDGs targets and indicators are framed in a way that these fail to provide special recognition and inclusion of these peoples' cultural knowledge as crucial to promoting sustainable development (Waldmüller et al., 2022).

Notably, cultural practices can form cultural capital, as much as economic practices that have given rise to the emergence of capitalism. For instance, Throsby (1999, 3) defined cultural capital as an asset embodying cultural value in an asset referring to heritage buildings and works of arts as having cultural phenomena with economic value. Although economic theory has introduced capital in a single form, this approach makes it impossible to account for the functioning of the real world, given that different forms of capital use various other structural boundaries to function. The three forms of cultural capital are the embodied (i.e., embodied dispositions in the mind and body), the objectified (i.e., cultural goods) and the institutionalised forms (i.e., cultural representations objectified by institutions; Bourdieu, 1986). For instance, First Nations peoples' cultural practices are embodied in their languages, which serve as conduits to transfer intergenerational knowledge, stories, shared norms and rituals, and

their spiritual relationships with land and water are an embodied form of cultural capital. Their cultural artefacts, such as boomerangs and didgeridoos, are the objectified form of their cultural capital. Their claim to possess, rather than own, lands is an institutional form of cultural capital. These collectively give rise to recognising these peoples' identity and ideological independence. The embodiments in cultural practices make it unique and give rise to their societal and cultural capital, which make these differ vastly from other forms of capital, such as economic and social capital. These aspects also make these cultures subtly unique compared with other societal cultures. Hence, the term cultural capital used here is not an economic concept of capital to universalise the system of capitalism.

The sociological approach taken in the forms of cultural capital however, does not comprehensively explain the cultural capital of the First Nations peoples. For instance, spirituality and its close relationship with sustainable development which are core aspects First Nations peoples' cultures are not explicitly dealt in the forms of cultural capital. In this paper, I introduce cultural capital of First Nations peoples as an epistemological approach with three worldviews where their interconnections are founded on spirituality—human world (for instance, kinship and collective wellbeing), natural world (for instance, land- and water-based wellbeing), and spiritual world (for instance, objects are living and they share the same soul or spirit as humans for wellbeing). Spirituality is the ability to acknowledge, understand, and feel wholeness within oneself, with others, nature, and the universe (Kawano, 2011). It is informed by the Interactionist Theory of First Nations Cultures (Montejo, 2021, 2–13), which is discussed later in the paper.

In that light, this study shows that First Nations peoples' cultural capital is an essential additional capital to be included in ensuring sustainable development. The study contributes to increased understanding by presenting a theoretical model using structural equation modelling (SEM), which integrates four types of capital: financial, intellectual, sustainability and cultural capital. It then proposes an application of this SEM model for non-governmental organisations (NGOs) contributing to First Nations peoples' cultural capital development. This model becomes the basis for preparing a sustainable development framework that integrates their cultural capital.

The original meaning of capital is the money that the owners of a business contribute as an investment (Fisher, 1904, p. 393). It refers to the monetary value of tangible and intangible assets owned by a person or firm (Hodgson, 2014). A competing meaning arose from Smith's (1776/1976, p. 281) reference to capital as a productive resource. In line with Smith, Hodgson (2014) stated that the word capital applies to anything that facilitates production. In the sociological literature, such production is not confined to monetary production. Hodgson (2014) views financial capital as owner's equity according to these understandings. In the past two decades, scholars and practitioners have identified non-financial resources that directly align with financial value creation with expanding globalisation and the knowledge economy. Abeysekera (2021) referred to these resources as intellectual capital, that is, the organised knowledge in a firm that can generate wealth.

As for culture, it exists in and through people as psychosomatic properties. Culture transcends values and customs across generations (Throsby, 1999). Throsby (1999) defined cultural capital as cultural value embodied in an asset, thus reducing cultural capital into assets.

A sector that connects sustainable development with culture is the NGO sector. These organisations follow a sustainable development model (Dolderer et al., 2021). They do not have investors and creditors, do not aim to profit from their services, generate revenue only to meet expenses and return any surpluses to pursue stated aims. They depend on grant revenue, donations and bequeathed assets (Minaker, 2021). They can connect sustainable development with culture effectively even under classical and neoclassical economic models because they serve the public good by engaging with communities that face hardships (Dolderer et al., 2021). However, there is little theoretical understanding about how NGOs connect sustainable development with societal culture particularly with First Nations peoples.

This study aims to present an empirically testable model that can investigate the theoretical relationship between sustainability capital and First Nations peoples' cultural capital as two theoretical constructs. The study fulfils the stated aim by meeting the following five objectives. First, it explains five types of capital constructs that contribute to the sustainable capital construct: financial, economic intellectual, environmental, social and sustainability-related intellectual capital. Second, for each such capital construct, it shows the construct dimensions through which to gather empirical evidence (Abeysekera, 2022a, 2022b). Third, it reveals the theoretical basis for the study and the choice of construct arrangement. Fourth, it explains variables measurements and states testable hypotheses. Fifth, it presents a model using SEM.

The remainder of this paper is organised as follows. In Section 2, a literature review is presented to pave the way for presenting the cultural capital concept, the impact of the post-development era on cultural capital, and the relationship of cultural capital with (a) sustainable development and (b) self-determination. Section 3 introduces the Gaia theory, the theory of distributive justice, and the interaction theory of First Nations cultures to show the framework outcomes for an integrated sustainability model and sustainability reporting. Section 4 discusses an empirically testable model using SEM, and Section 5 presents concepts for integrated sustainability reporting.

2 | LITERATURE REVIEW

2.1 | Cultural capital versus globalisation

Certain cultural practices adopted by First Nations peoples appear contrary to sustainable development, such as the hunting of bowhead whales for consumption by the Iñupiat people of Arctic Alaska. This practice had a minuscule adverse impact on sustainable development while they engaged in whale hunting for sustaining their food consumption. Conversely, more wide-scale negative environmental effects caused by humans through activities associated with globalisation have led to global warming and increases of sea water temperature. These changes have adversely affected whale habitats,

which has reduced the bowhead whale population in Alaska (Sakakibara, 2018). Further, First Nations peoples follow the cultural practice (known as *grindadrap*) of killing potentially endangered pilot whales and dolphins, by stabbing their blubber—this annual ritual slaughter for meat is conducted by those in Faroe Islands, located in the North Atlantic region (Mamzer, 2021). Animal rights groups have highlighted that this practice damages sustainability and takes away marine mammals (cetaceans) right to life as they are considered borderline persons.

However, efforts to stop such practices have met with limited success because the world's oceans are common property and international law has weak sovereignty (supreme authority) in enforcing bowhead whales' right to life (Mence, 2015). In addition, First Nations peoples have pointed out that the statistics reported about such killings are overestimated, and there is also statistical evidence that such killings have substantially decreased over the decades (Singleton & Fielding, 2017). Nevertheless, these traditional practices form part of the defining culture of First Nations peoples. In contrast, globalisation has caused more harm—for example, more whales are washed off-shore and die because of acute noise pollution generated underwater by cargo ships and military drills, which increase the fear and stress levels of whales and impede their ability to maintain physiological balance (Wang et al., 2021; Williams et al., 2022).

Contrary to these contested practices of First Nations peoples, which threaten sustainable development, evidence from other areas suggests that lands occupied by them support sustainable development practices. For instance, primates (prosimians, tarsiers, monkeys and apes) are distributed across 91 countries, mainly in Central and South America, Trans-Saharan Africa and Arabia, the Indian sub-continent, Southeast Asian forests, Malaysia and Western Indonesia. In all, 30% of the land of First Nations peoples is within the primates' habitable range, with 71% of primates occupying the land. Evidence from other areas suggests that lands occupied by them support sustainable development practices (Estrada et al., 2022).

Significantly, issues and solutions related to sustainable development are in constant flux owing to the effects of the second wave of globalisation that began in 1944 and this situation has contributed to a sense of urgency to make large-scale societal changes for meeting internationally agreed UN SDGs (Zilahy & Dobers, 2021). Globalisation has introduced and expanded the commercial use of many products, which can constantly bring new issues that urgently require solutions to ensure sustainable development.

For instance, the wide use of plastic products that irrationally consume non-renewable fossil fuels has become a key cause of pollution. Single-use plastic products can be disposed of in landfills, be exported to a third country for disposal or be incinerated, but they are not degradable through biological processes. Instead, they break down into smaller particles that retain their original properties and become gases, contaminated liquid and fillers, which harm the wellbeing of flora and fauna by polluting lands and waters. Thus, such products can have negative effects on First Nations peoples, whose voices are less heard because of their limited financial resources, in terms of formulating and implementing environmental justice policies. This situation

can negatively affect the upholding of justice to foster their cultural practices conducive to sustainable development (Hatfield, 2019; United Nations Environment Programme, 2021).

2.2 | Post-development era and cultural capital negligence

The literature on post-development theories after the end of World War II in 1945 has analysed developed countries in the West, supporting developing countries to advance in 'Western' ways (Andrews & Bawa, 2014). It has been highlighted that post-development is an ideological imposition, rather than scientifically based. It was not formulated by understanding peoples and places that require such development intervention (Olatunji & Bature, 2019). The blame for the failure of such interventions is attributed to developing countries lacking the modernised support structure required, primarily the technology. The poverty in developing countries, which post-development theorists associate with a lack of skills and capabilities to support development, is also considered a factor for such failures (Nustad, 2001). The emphasis was on market-based economic development with a narrow focus on increasing the gross domestic product and gross national product. Later, in the post-development era, there was a shift to embrace people, especially grassroots communities and urban and rural poor (Ziai, 2007, pp. 3–17).

The release of the *Report of the World Commission on Environment and Development: Our Common Future* propelled the movement that countries must take care of economic, social and environmental spheres in development (Brundtland, 1987). Critics have stated that the development objective is objectified as sustainable development by the United Nations through the 17 SDGs. The goals have narratives presented as a valid set of statements, with each such goal set with procedures to attain targets and indicators. There is critique that the UN SDG agenda treats people and sustainable development as two separate objects, rather than as an inclusive humanistic phenomenon (Nustad, 2001; Olatunji & Bature, 2019).

Despite such criticism, there is evidence that policymakers consulted representatives of First Nations peoples in developing the 17 UNSDGs to ensure the sustainable development of all by 2030. However, these peoples' cultural significance in sustainable development is underplayed by not paying due recognition to the lands they occupy and their crucial importance for sustainable development (Mazzocchi, 2020; Waldmüller et al., 2022). Significantly, their cultural capital can propel economic, social and environmental innovations that have the potential to enhance sustainable development (Macneill, 2020, pp. 1–14).

2.3 | Sustainable development and cultural capital integration

Considering that they are the first inhabitants of a country, over the centuries, First Nations peoples have accumulated vast knowledge

about the planetary boundaries within which they live. This knowledge is localised in these communities as cultural capital (Abeysekera, 2021). It is difficult to codify their cultural knowledge for global use because others perceive it as local knowledge (Bird-David, 1990). First Nations peoples have depended on the resources the planet could offer them as localised communities that have lived for tens of thousands of years. Although globalisation which has supported capital market forces to operate based on maximising earnings, neglected localised communities such as First Nations peoples, NGOs, as firm sector, has stepped in to fill in that neglected space to help nurture them with sustainable development (Abiddin et al., 2022).

At present, firms including NGOs have broadened their value creation agendas in response to growing concerns about sustainable development. Firms create value through two types of capital: financial capital and non-financial-related intellectual capital. The former represents the present value of capital, whereas the latter represents its future value. In a firm that has embraced sustainable development, economic intellectual capital is directed towards financial value creation. Sustainability-related intellectual capital is directed towards sustainability value creation (Abeysekera, 2022b).

Even within a capital type, there can be different resource identification approaches. Environmental capital comprises renewable and non-renewable resources, which include biodiversity and ecosystems (Folke et al., 1994, p. 4; Throsby, 2017). Social capital is a collection of resources for the broader effects of social networks in civil society (Bourdieu, 1986; Brauer, 2010; Fulkerson & Thompson, 2008).

An often-omitted exclusive resource type is cultural capital. Cultural capital refers to the way people come to know their localised world and how they act within it. The localised world can range from a small community to a country or even a collection of countries. Localisation breeds traditions, languages and practices, and ways of thinking, creating and innovating (Emery & Flora, 2006). First Nations peoples have accumulated cultural knowledge to respond to conditions in their localised living areas. They have engaged in multiple practices for a living—hunting, gathering, fishing, cultivation and trade. They typically approach managing risk (unpredictable loss) through reciprocity and storing resources. Their practices align with planetary climatic variations in water supply and heat interconnected through sustaining plants and animals for their livelihood. They have learned to predict the risk of loss using local knowledge, and storing allows them to meet such losses. Reciprocal gift-giving and helping each other reduce unpredictable losses because the shared obligation to help each other is a worldview to them (Cashdan, 1985; Wright et al., 2021).

First Nations peoples' cultural knowledge can be considered a living concept (Whap, 2001). It is also relational and pluralistic (Wright et al., 2021). Because it is pluralistic, their cultures vary, but still have three common threads. The first is that their knowledge is descended local knowledge. The second is the view that all beings and non-beings on the planet are interconnected. The third is the view that all beings equally share the same spirit and interconnectivity, which makes them take care of the planet and treat each being with respect. First Nations cultures' spiritual beliefs state that all in nature is

animistic, including plants, animals and natural forces. Through their dreamtime stories, their culture transmits and shares equality and interconnectedness, and they treat each other with reverence and respect. Consequently, they have developed a strong connection with the land. Consumption, and not over-consumption, and similarly, production, and not over-production, matter to them. They symbolise and practise these through their cultures' totems, songs, stories and rituals (Janke, 2005). Hence, the First Nations culture construct is underpinned by living reverently on the planet (Tidemann et al., 2010).

A notable difference between the First Nations culture and Western or modern cultures arises from the difference in the culture construct. The First Nations culture includes sustainable development following a holistic approach. In the holistic approach, the subject (people) and object (goals relating to sustainable development) are interconnected. Humans are one species, but complex ecological systems depend on the interconnectivity of species. Sustainable development involves sustaining the development of a variety of possibilities (Wright, 2014). Western and modern cultures follow a dualistic approach and consider that sustainable development requires separate effort and attention. In the dualistic approach, if humans direct sustainable development, they can take control of sustainable development single-handedly (Conty, 2022).

2.4 | Self-determination and cultural capital recognition

Using their cultural capital has become part of an essential self-determination plan of the First Nations Peoples. Mainstream communities engage with law-making and law enforcement authorities using financial capital, which has overshadowed other forms of capital in decision-making in organisations. These communities attempted to assimilate First Nations peoples into their cultures by taking the latter's children for adoption and sending them to boarding schools. Later, these actions led governments to make public apologies. Despite public apologies, the cultural divide remains unresolved owing to these past actions (Jackson Pulver & Fitzpatrick, 2008; Kingsley et al., 2013).

Efforts to reduce the cultural divide are rooted in reducing differences, ranging from cultural to psychological and biological ones, leading to different theses (Verdon, 2010). This divide has led to the implementation of mainstream policies and procedures to benefit First Nations peoples in some aspects, but these peoples have fallen behind the mainstream community in terms of achieving some UN SDGs, namely, health, education, wellbeing and housing (Barker et al., 2018).

There is increasing acknowledgement that a culture does not apply to the whole of the country but to clusters in a country, and there is a growing commitment to redress the injustices caused by previous misguided conceptions. Furthermore, it is essential and valuable to nurture First Nations peoples' cultural identity of who they are, given that their cultures date back tens of thousands of generations. Their languages, customs, traditions, spiritualities and ways of

thinking manifest their identity. Restoring justice allows a fair distribution of scarce resources towards self-determination to decide and control fairly distributed life choices (Niezen, 2009, pp. 3–16). Across countries, NGOs have committed to agendas to nurture cultural capital towards the self-determination of First Nations peoples.

The discussion thus far on the post-development era highlights the gradual erosion of First Nations peoples' cultural capital in policy formulation, which has been dominated by the worldviews of mainstream policymakers about sustainable development. The debate on sustainable development shows that attempts were made to develop the 17 UN SDGs in the 2030 Sustainable Development Agenda through a consultative process with First Nations peoples. However, these efforts have fallen short of providing a special significance for their culture and the crucial role their culture play in sustainable development by owning their decisions. This discussion on self-determination highlights the importance of recognising their cultural capital for encouraging First Nations peoples to make their own decisions.

3 | THEORETICAL FRAMEWORK

Sustainability is the overarching umbrella term, and sustainable development is a specific paradigm to reach sustainability (Throsby, 2017). Figure 1 shows the two theories presented to explain the understanding that accounts for the cultural capital of the First Nations peoples. Gaia theory brings out the First Nations peoples' worldview of connectivity with the planet through interdependence with each other and the integration of resources for sustainable development. The theory of distributive justice highlights the need for the fair distribution of resources to them, which requires restoration. Restoring and distributing fair justice to First Nations peoples is a global moral duty and a sustainable development outcome. The Interactionist Theory of First Nations Cultures shows the value of harmonious living that integrates human, spiritual, and nature aspects.

3.1 | Gaia theory and sustainable development

Ancient Greeks referred to the planet as a living organism, a goddess and a supernatural entity. Romans followed suit, calling it terra, which is now more commonly known as Mother Earth. Thus far, it is the only planet known to have living organisms. The holistic thinking about the earth as a living system that works in harmony with non-living systems found little scientific acceptance initially, because it is not a deduction made after examining various parts of the earth to create a holistic assertion that it is a living system. Holistic thinking allows us to appreciate that the land and the sea have played an equal part in maintaining the tolerance ranges within which organisms live and flourish; the salinity level in the ocean has remained at 3.4% for a long time, and Gaia is a thermodynamically open system at the earth's surface that comprises the animal and plant life on the planet (the biota), the atmosphere, the hydrosphere and dead matter, such as organic

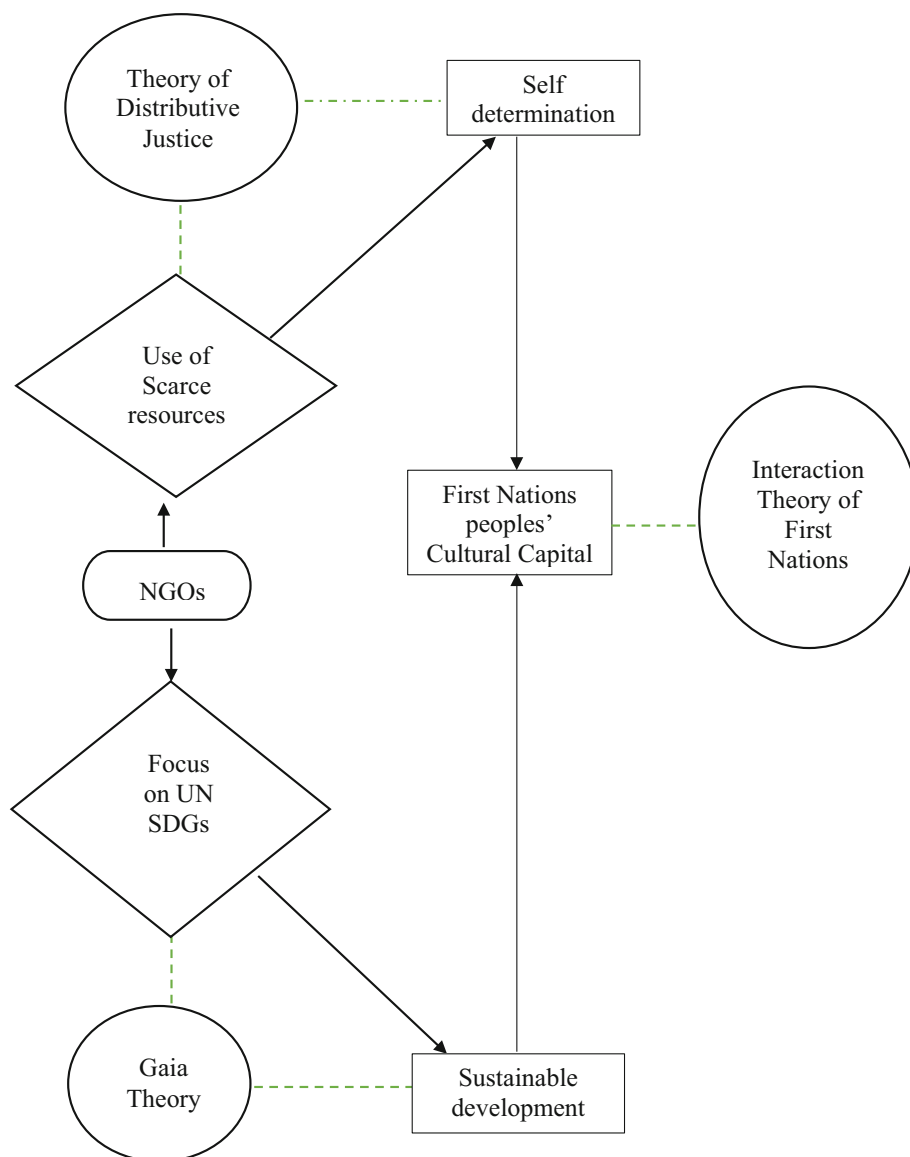


FIGURE 1 Theoretical framework of sustainable development of NGOs serving First Nations peoples.

matter, soils, sediments and the crust (lithosphere), and surface processes such as rocks that form sediments through erosion (Lenton et al., 2020; Lenton & van Oijen, 2002, p. 684).

Proponents of the Gaia hypothesis highlight that the level of atmospheric oxygen, which is a by-product of photosynthesis by plants, has been maintained at 21%, just below a level where otherwise, a bushfire can occur quickly. The interconnection and exchange that occur between the earth, water, energy and atmosphere have brought about a balance to sustain life over centuries within liveable ranges. Gaia theory now provides evidence that the planetary system self-regulates with living and non-living organisms to support living organisms, despite changes in the heat radiation reaching the earth (Boston, 2008, pp. 1727–1731; Lenton et al., 2020).

Lovelock and Margulis (1974) reported that life on earth appears to have continued ever since the earth began supporting life, and changes in radiation acted to bring stability into continued life. Gaia theory shows that environmental changes lead to the continuation of life through a complex stability—this is a missing aspect of Darwinism,

which concluded that biological evolution leads to the survival of species (Radford, 2019). Gaia theory has a parallel empirical base to First Nations peoples' animism belief system that shows the interconnectivity between living and non-living beings to maintain and continue life on the planet.

A current concern about greenhouse gas emissions is the increased carbon dioxide and methane emissions into the air owing to human activity for agricultural and industrial production. These chemicals can hold heat energy in the air, which is otherwise passed back to space, and thus make the planet warmer, create more ice to melt, increase sea water levels, increase the temperature of water that flows to the equator and reduce the habitable land area for humans. Another concern is using non-renewable energy resources, which reduces their availability to current and future generations.

Although science has contributed to sustainable resource management, scientists rarely take responsibility for the consequences of its actions. The collective participatory approach to resource management has notably been absent for tens of thousands of generations

among mainstream communities, although climate management techniques collectively developed and practised by the First Nations peoples have proven to be effective. Gaia theory reflects the First Nations peoples' thinking about sustainability and the need to consider resources as interconnected for ensuring sustainable development. The sustainability knowledge base is a crucial aspect of their cultural capital, whereby they perceive the climate as part of the planetary system (Etchart, 2017).

3.2 | Theory of distributive justice and self-determination

The theory of distributive justice states that one role of social and economic institutions is to distribute economic and social justice (Rawls, 2001). Although theorists have agreed with this premise, there is debate about the elements that comprise justice. Scholars have pointed out that distributive justice occurs when relative scarcity is excluded from some sections of the people, where it is corrected by a given authority (Olsaretti, 2022). In terms of sustainable development, it is about having sustainable livelihoods and wellbeing, rather than well-being. It requires a strong base that connects the economy, society and the environment to human equity (Hopwood et al., 2005).

There are conflicting views of who should receive justice, although there is agreement that justice is a normative moral duty to be fair to all. Some believe that those less deprived of justice may receive their fair share. Others view that those who receive justice must show they deserve to receive it. In both belief systems, there is a legitimate entitlement earned under suitable conditions (Rawls, 2001, p. 78).

First Nations peoples commonly described the need for distributive justice between the First Nations peoples and mainstream communities in order to reduce the disadvantages experienced by the former. It shows the conceptual design proposed in this paper towards sustainable development placing emphasis on First Nations peoples' cultural capital. It has been reported that in countries with the highest human development levels, such as Australia, Canada and New Zealand, First Nations peoples' disadvantages in terms of employment, income and education (e.g., from 1981 up to 2006) have not been mitigated (Mitrou et al., 2014). As First Nations peoples approach cultural preservation and self-determination, they also require economic and social fairness to reduce the disadvantages featured in the UN SDGs.

3.3 | Interactionist theory of First Nations cultures

The Hofstede model of national cultures is a widely applied instrument in which societal cultures are explainable by quantified dimensional scores. The dimensions are power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, and long- versus short-term orientation (Hofstede, 2001). However, this model has attracted criticism because a nation-state can have different societal cultures (Baskerville, 2003). For instance,

Australia has more than 573 identifiable First Nations societal cultures (Murdoch, 1967).

The interaction theory of First Nations cultures takes a contrasting standpoint where spirituality is central to defining cultural identifications and consequences. The universe has all the power to create everything that exists. In the Western belief system, creation occurred from a distant unknown place, but for First Nations, it occurred from places that they inhabit, which results in a solid connection among them with the lands and seas. Hence, to them, respecting all life forms and living in harmonious balance with nature and the universe are paramount. This harmony is three-dimensional: between humans, nature and the spiritual world. The spiritual world is the single force that animates the cosmos. Further, different societal cultures can adopt various symbols and practices to acknowledge and appreciate the spiritual word visually (Montejo, 2021, pp. 2–13).

3.4 | Theoretical framework

Figure 1 shows the theoretical framework proposed in this study to include First Nations peoples' cultural capital in sustainable development efforts. In this context, in this study, NGOs take the lead in distributing scarce resources to these peoples, who are disadvantaged in terms of their cultural, environmental, social and economic development because they cannot satisfactorily take self-determined actions. The practices in the 17 UN SDGs' framework are integral to First Nations peoples' way of living.

NGOs that serve First Nations peoples and use the scarce resources provided to them by donors to attain the targeted UN SDGs can empower First Nations peoples' self-determined thought and action and support sustainable development. First Nations peoples are found in many countries globally and contribute enormously to sustainable development since it is their way of living with beliefs about animism. Although their cultural practices vary, spirituality is central and common to all (Watene & Yap, 2015).

Figure 1 further explains three theories in the framework for First Nations peoples' cultural capital development: the theory of distributive justice, Gaia theory and the interaction theory of First Nations cultures. The theory of distributive justice theory explains that using scarce resources equitably towards First Nations peoples can assist in supporting their self-determination. Their increased capacity to make their own decisions would contribute to enhancing their cultural capital. Gaia theory explains that a focus on the UN SDGs along with spiritual reverence to land and water would support sustainable development.

The interaction theory of First Nations cultures suggests appreciating and recognising First Nations peoples' cultural capital that is founded on a spirituality mindset. The selective focus on UN SDGs enhances culturally conducive sustainable development, which then enhances these peoples' cultural capital.

NGOs serving First Nations peoples are crucial in ensuring their place drives sustainable development based on culturally and spiritually reverent understanding and knowledge. NGOs decide on the best use of scarce resource and maintain selective focus on UN SDGs.

Through their decisions, NGOs aim to enhance self-determination and sustainable development, which contribute to improving First Nations peoples' cultural capital.

4 | METHODOLOGY

The next step is to develop a testable empirical model and investigate whether field data can fit the model. An SEM model can be used to conduct such testing and can establish causal relationships between constructs. Such empirical evidence can help to advance the theoretical premise on which model is founded.

To solve the developed model mathematically, it must have more information in the form of model values (variance and covariance values) than model parameters (path coefficients, and measurement errors); such a model is referred to as an overidentified model. When a model is not solvable with a unique solution because less information is provided by the measured variables (variance and covariance values), it is referred to as an underidentified model. This situation can occur when variables are highly interrelated (multicollinearity), or when one of the measured variables is not fixed as a constant to freely compute other measured variables in the path to the latent variable (Beran & Violato, 2010).

4.1 | Measurement variables

Financial capital can help increase sustainability capital in NGOs serving First Nations peoples because it improves these NGOs' capability and capacity to engage in sustainable development. In relation to NGOs helping First Nations peoples, the study states its first hypothesis, as follows:

H1. Financial capital influences sustainability capital.

Further, the use of economic intellectual capital can support sustainability capital. Guthrie and Petty (2000) classified intellectual capital into internal capital (capital related to the institutional structure), external capital (relationship-based capital) and human capital. NGOs can employ culturally sensitive people and people with a cultural identity and heritage, which comprise their human capital. They establish good relationships with beneficiary recipients among First Nations peoples, which comprise external capital. These organisations also harness traditional processes and practices of the First Nations peoples that are acceptable to beneficiaries, forming internal capital. In relation to NGOs serving First Nations peoples, the study presents its second hypothesis, as follows:

H2. Economic intellectual capital influences sustainability capital.

In addition, sustainability capital is a formative construct that shows the outcome of NGOs serving First Nations peoples engaging

in sustainable development. Sustainability capital outcome is a result of the contribution of NGOs serving First Nations peoples financial capital, economic intellectual capital, social capital, sustainability-related intellectual capital, and environmental capital construct dimensions. Engaging UN SDGs occurs through three construct dimensions: social capital, sustainability-related intellectual capital and environmental capital. Each construct dimension is a cluster of UN SDGs (Abeysekera, 2022a, 2022b). Social capital is a cluster of UN SDGs 1, 2, 3, 4, 5, 8, 10 and 16. Sustainability-related intellectual capital is a cluster of UN SDGs 9, 11 and 12. Environmental capital is a cluster of UN SDGs 6, 7, 13, 14 and 15. NGOs that serve First Nations peoples engaging in sustainable development help to increase sustainability capital. Accordingly, the following three hypotheses concerning NGOs serving First Nations peoples are proposed:

H3. Social capital influences sustainability capital.

H4. Sustainability-related intellectual capital influences sustainability capital.

H5. Environmental capital influences sustainability capital.

Sustainability capital, an outcome of engaging in sustainable development can enhance First Nations peoples' cultural capital. Increasing sustainability capital means improving culturally relevant sustainability that aligns with local knowledge and spirituality, which promotes self-determination and contributes to raising cultural capital. Cultural capital is also a formative construct. About NGOs serving First Nations peoples, the study proposes the following hypothesis:

H6. Sustainability capital influences First Nations peoples' cultural capital.

The SEM model in this study has two main endogenous constructs: sustainability capital and cultural capital. They are endogenous because they are not predicted with measured variables. Sustainability capital has three construct dimensions: social capital, sustainability-related intellectual capital and environmental capital. These construct dimensions are exogenous because their values are derived from measured variables. Cultural capital construct comprise human world, natural world, and spiritual world construct dimensions based on the Interaction Theory of First Nations Cultures.

For instance, in a field survey, the measured variables are measured with several items or indicators. The item or indicator data collected can comprise any data type—ratio, ordinal and nominal. Having more items to measure a variable that represents a construct helps to increase the accuracy of the value of the construct being measured. The aim is to minimise the measurement error contained in the construct, which can be achieved by accurately measuring the items relating to the variables of the construct. Because the SEM model can accommodate different data types, a researcher can collect data using different data collection instruments. These data can be primary data (collected from a survey

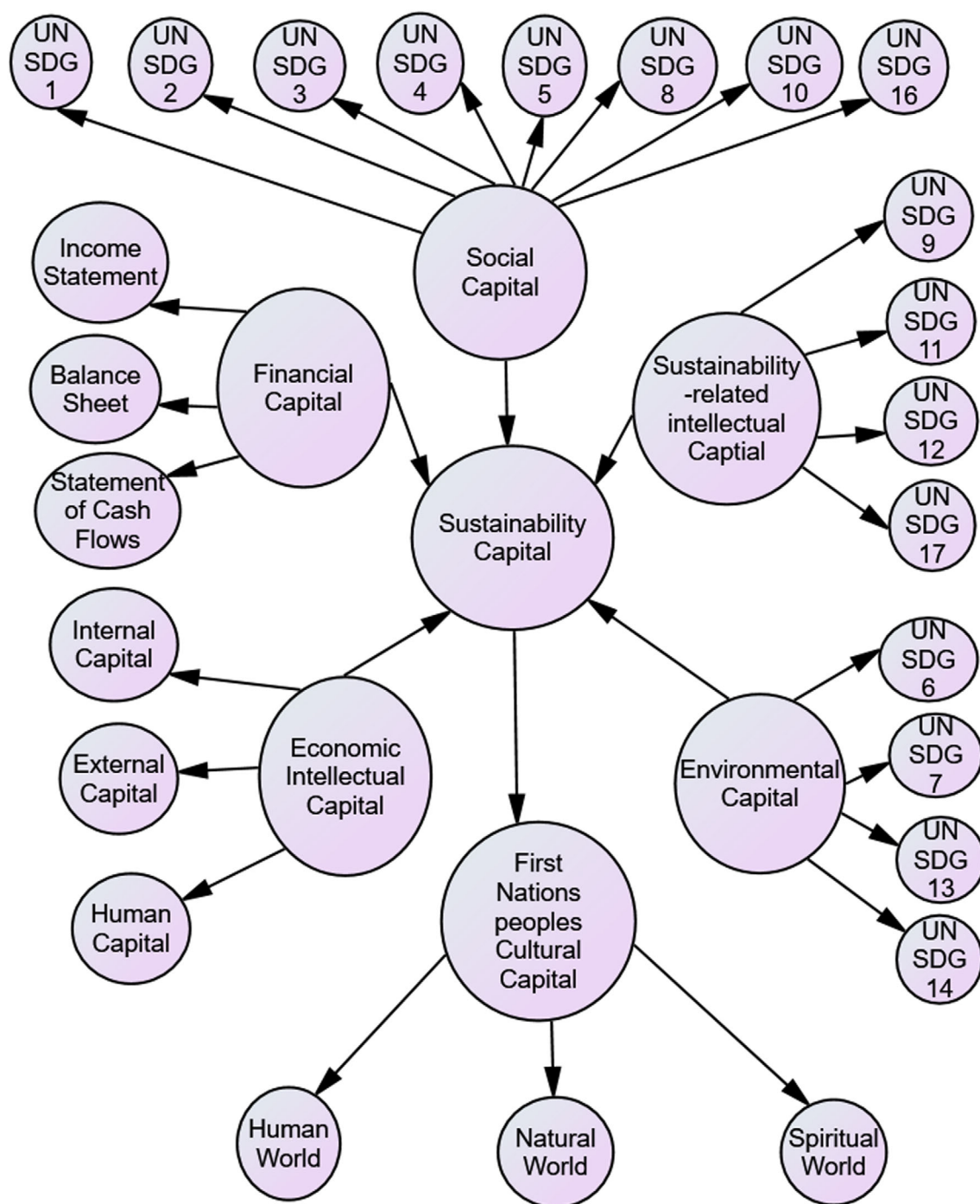


FIGURE 2 Integrating cultural capital into the sustainability model of non-governmental organisations serving First Nations peoples.

instrument) or secondary data (obtained from a database). The data collection method is driven by the research questions that are to be answered using these data, the need to minimise data measurement errors, the data availability and the time and funding available to conduct the research (Office for National Statistics, 2022).

The construct dimensions are measured with indicators. The indicators are formative in construct dimensions. For instance, the items (indicators) that represent the construct dimension form the construct dimension. Items on the balance sheet form the balance sheet, items

on the income statement form the income statement, items on the statement of cash flows (Diamantopoulos & Siguaw, 2006).

The measurement values of the construct dimensions are derived from items (indicators) observed in the field or practice. Guthrie and Petty (2000) identified 10 indicators of internal capital, nine of external capital and five of human capital; these items differ from the sustainability goals. The context determines the number of indicators relating to the intellectual capital dimensions (Abeysekera, 2007; Diamantopoulos & Siguaw, 2006).

In sustainability capital, social capital is a reflective construct dimension, and reflecting on changes to social capital requires reflecting upon UN SDGs 1, 2, 3, 4, 5, 8, 10 and 16 (Abeysekera, 2022a). These are as follows: 1. No poverty, 2. Zero hunger, 3. Good health and well-being, 4. Quality education, 5. Gender equality, 8. Decent work and economic growth, 10. Reduced inequalities and 16. Peace, justice, and strong institutions.

The sustainability-related intellectual capital dimension is a reflective construct dimension informed by UN SDGs 9, 11, 12 and 17 (Abeysekera, 2022a). These are as follows: 9. Industry, innovation, and infrastructure; 11. Sustainable cities and communities; 12. Responsible consumption and production; and 17. Partnerships for the goals. The environmental capital dimension is also a contemplative construct dimension, with changes in the UN SDGs 6, 7, 13, 14 and 15 reflected as changes to the construct dimension (Abeysekera, 2022a). These are as follows: 6. Clean water and sanitation, 7. Affordable and clean energy, 13. Climate action, 14. Life below water and 15. Life on land.

Figure 2 shows the arrangement of capital. Social, environmental and sustainability-related intellectual capital are construct dimensions of sustainability capital. These dimensions represent the 17 UN SDGs. NGOs engage in sustainable development goals to support First Nations peoples' development goals. The items (indicators) in each UN SDG measured are formative of the UN SDG. These items (indicators) are noted on the Sustainability Agenda as targets in each UN SDG, and each target is elaborated by one or more measurable items (indicators) by the 2030 UN Sustainability Agenda framework (Diamantopoulos & Siguaw, 2006).

Their development goals coincide with UN SDGs, which are integral to their cultures, and sustainable development is the way of living in their cultures. Additional to these construct dimensions, in NGOs, financial capital and financial-related intellectual capital also contribute to developing the sustainability capital of the First Nations peoples' development undertaken by NGOs.

In testing the relationship between sustainability capital and First Nations peoples' cultural capital, five formative constructs inform the sustainability capital constructs: financial, financial-related intellectual, sustainability-related intellectual, social and environmental capital. These are exogenous constructs because there are no predictors for them. Sustainability capital and cultural capital are endogenous constructs because there are constructs predicting them. Since they have exogenous constructs indicating them, those two constructs have residual errors arising from such prediction.

4.2 | Sample size

The sample size required depends on the number of parameters being tested and the sample size for conducting SEM. Large sample sizes can increase the operational cost of research, such as in survey research, for which data on many of variables are collected by conducting a small sample survey. The variables can become parameter estimates in the structural equation model (Deng et al., 2018).

A recommendation is to have five times larger than the number of parameters for normally distributed data (5:1) and 10 times (10:1) more for arbitrarily distributed data. A parameter is a variance or covariance of an exogenous variable, and an exogenous variable is a variable whose value does not depend on any variable in a model (Bentler & Chou, 1987).

4.3 | Structural equation model

An SEM model is proposed in this study because this model is a good starting point to investigate the relationship between latent constructs. The theoretical robustness is testable using SEM with a required minimum sample size of NGOs serving First Nations peoples' projects. The primary aim is to test the extent to which field data can support the SEM model. In SEM, a model must be a just-identified or an overidentified one in order to estimate parameters. These provides the minimum sample size required to obtain a unique solution to the data tested through the model after considering the specification, identification and validation of constructs (Kang & Anh, 2021).

An advantage of an SEM model is that it can simultaneously test the measurement and structural model of construct relationships. The SEM model can rigorously test the paths (arrows) shown in the model. The paths emerging from a mis-specified construct can inflate the significance and lead to type 1 errors, resulting in the null hypothesis being falsely rejected as statistically not significant and the parameter being accepted as statistically significant. The paths leading to a mis-specified SEM model can deflate the significance, which leads to type 2 errors, and the parameters and the null hypothesis being falsely accepted as statistically non-significant (Freeze & Raschke, 2007). The SEM model used in this study has causal indicators (observed or endogenous variables) connected with the 17 SDGs, the three financial statements and the items relating to the non-financial-related intellectual capital. In measuring causal indicators, an extended model with measurement variables (ascertained through obtaining data through indicators or items) can show the measurement errors that are unable to capture in exogenous variables. In measuring constructs, the model shows residual errors that cannot be captured capture in endogenous variables.

4.4 | Model robustness tests

The model robustness tests are outlined in this section as guidelines to test the SEM model with empirical data in future research endeavours. Suppose the study uses the same survey questionnaire to measure variables with the same response scale, such as an ordinal scale. In that case, biases arising from using a common methodological practice (common method bias) can occur. These biases can arise from various sources. When data about the dependent and independent variables are obtained from the same participants by using indicators or (questionnaire) items, participants become the common source of bias in measuring those variables, which can then unduly increase the

collinearity between those two measured variables. There are numerous sources of common method bias. Testing whether such bias exists among the latent constructs is vital to ensure that they are accurately estimated through the measured variables. Another issue in SEM modelling is including variables that are less useful and omitting variables that are more useful to explain the model (Tarka, 2018). If the full collinearity variance inflation factor does not exceed the threshold of 3.30, it means there is no collinearity problem (Kock, 2014). R^2 values can explain the strength of relationships by indicating the extent to which the exogenous constructs can explain the endogenous constructs. R^2 values of 0.19 (weak), 0.33 (moderate) and 0.67 (substantial) for the structural model are within weak to moderate levels (Chin, 1998). Further, Q^2 values can show whether the endogenous latent constructs exhibit predictive validity, for their Q^2 values must be greater than zero (Kock & Lynn, 2012).

5 | CONCLUSION

5.1 | Research limitations

Three factors can limit the generalisability of findings on applying the SEM model. First, NGOs serving First Nations peoples have an important role to play in representing and reproducing these peoples' cultural capital. NGOs' aims and factors bound the extent of generalisability of findings. These factors include the organisation's size, industry sector in which it operates and its board of director composition.

Second, an underlying assumption (see Figure 1) is that all First Nations peoples share the same culture. Although they constitute only 6% of the global population, they speak more than 4000 of the world's 6700 languages. These languages are not merely a communication tool, but a complex system of knowledge preserved over centuries that is crucial to defining their sub-cultures and expressing self-determination (United Nations, 2018).

Third, validating the SEM model with primary data on NGOs can reveal other constructs thus far not considered in this model. For instance, politics as an external construct, which is outside the NGOs control, may have a substantial influence on developing First Nations peoples' cultural capital, by moderating or mediating the relationship between sustainability capital and such cultural capital.

5.2 | Research implications

Five research implications lead to future research propositions. First, the 17 UN SDGs provide measurement and reporting targets such that firms must use sound judgement to inform stakeholders about sustainability. From a report user perspective, research findings show stakeholders differ in their preferences about the information reported (Lu & Abeysekera, 2017). Against this backdrop, the theory of distributive justice can fill the resulting theoretical vacuum from the perspective of the report preparer. Future research can examine

whether stakeholder groups perceive the relationship between sustainability capital and First Nations peoples' cultural capital.

Second, the funders are the primary beneficiaries of reporting because they provide funds. However, other stakeholders have a stake in the usage of funds, including First Nations peoples' organisations, who are the ultimate beneficiaries of the project outcome targets being achieved. Future research can test the funders' influence on the relationship between sustainability capital and First Nations peoples' cultural capital.

Third, First Nations peoples developing cultural capital may require the use of various resources differently because they share heterogeneous cultures. First Nations peoples' knowledge, and their relationship and stewardship with the land and water, would be represented more effectively by empirically testing the SEM model with field-based data for in-depth understanding and evaluation.

Fourth, future studies can test the SEM model with field-collected data for model fit with NGOs serving First Nations people in different locations. The locational testing highlights the location-specific indicators to increase cultural capital through sustainability capital. Fifth, since cultural capital among First Nations peoples can vary, collecting primary data from various sub-cultures can provide additional insights and interpretations of the relationships between sustainability capital and cultural capital.

5.3 | Practical implications

The SEM model in this study includes the widely accepted 17 UN SDGs. However, in reporting the details of projects, the benefit of communicating details must outweigh the report preparation costs because NGOs must collate and analyse data for report preparation. However, using the UN SDG framework for reporting has three advantages: First, the framework provides a clear roadmap. Second, it is a widely accepted framework. Third, NGOs must invariably select UN SDGs and the measurement guidelines provided by the UN SDG framework and report their contributions (Abeysekera, 2022b).

The model application in the field can serve as a benchmark to test the results of profit-making organisations engaged in sustainability towards First Nations peoples' cultural capital development, and to compare NGOs with them. Field data can enable model modification towards making findings more valid and accurate with data collected in a given context to investigate a research objective.

5.4 | Social implications

A sustainability report increases accountability by showing the aims of different types of capital in order to contribute to the First Nations peoples' cultural capital development. Detailed, accountable and transparent reporting can encourage stakeholders to make donations. A sustainability report also helps society appreciate and evaluate efforts made by NGOs in accounting for cultural capital. The reporting can increase community awareness about NGOs overcoming

structural disadvantages by equitably distributing justice and taking a culturally conducive approach to developing sustainability capital. Some profit-making firms likely approach sustainability as a transactional commodity to maximise profits rather than to help and sustain the planet. In contrast, the First Nations peoples have understood the essentiality of sustainability for planetary existence.

5.5 | Concluding remarks

This study presented an SEM model to investigate the relationship between sustainability capital and First Nations cultural capital in NGOs serving First Nations peoples. Gaining insights into this relationship is crucial because these peoples include sustainable development in their culture-shaping identity. Such understanding of the relationship can facilitate the redefinition of sustainable development as an inclusive phenomenon in people's lifestyles, which has norms and protocols, rather than an objectified phenomenon that separates people from nature (Mazzocchi, 2020). This understanding is consistent with Gaia theory, which supports a holistic approach to sustainable development.

These understandings and insights can lead to moving beyond an interdisciplinary approach to an intercultural system that includes First Nations peoples' methodologies and worldviews towards sustainable development. The sustainable development discourse for policymaking that is globally common and analytical can complement location-based knowledge and a holistic approach to the sustainable development of First Nations peoples (Menzies et al., 2022). It is consistent with the theory of distributive justice that promotes using scarce resources equitably for humankind.

NGOs do not aim to minimise costs and increase revenues, unlike profit-making firms. However, they must report about fund use to fund providers, such as governments and those who make donations and bequeath assets. Nonetheless, NGOs' strategic objective is to meet the public good. This study concerns NGOs serving First Nations peoples, which aim to increase cultural capital through sustainability capital. Sustainability capital derives value from raising intellectual, social and environmental capital. It draws from the Gaia theory to show the interconnectivity of resources embedded in the types of capital. It draws from the theory of distributive justice to show that using resources in capital for achieving sustainable development helps to enhance First Nations peoples' cultural capital and self-determination.

Although the concept of sustainable development has been known for well over 30 years, the response to it thus far has been to use more methodologies, tools and techniques in the context of economic growth, treating sustainable development as an objectified phenomenon separate from economic growth. Such thinking may have contributed to the challenges of meeting and setting the 2030 UN SDG Agenda (Dobers & Zilahy, 2023). In this light, it is paramount to pay attention to First Nations peoples' cultural capital in facilitating sustainable development because they occupy a sizeable, biologically diverse land mass, sustainability is a way of living for them and they have a strong connection with nature to support sustainable development.

CONFLICT OF INTEREST STATEMENT

The author declares that the study was conducted in the absence of any commercial relationships that could be construed as a potential conflict of interest.

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