



SOCIAL CONSTRUCTS OF POPULATION HEALTH AND ORGANIZATIONAL SUSTAINABILITY: A STUDY OF SELECTED FEDERAL UNIVERSITIES IN NIGERIA

Henry Sonna Ojukwu¹, Ejike Daniel Chukwuma², Michael Ikenna Anyika³,
and Owuamanam Chidimma Yvette⁴

^{1,2,4}Department of Business Administration, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka.

Email: ¹hs.ojukwu@unizik.edu.ng; ²dc.ejike@unizik.edu.ng; ⁴cy.owuamanam@unizik.edu.ng

³Skylark Pharmaceuticals and Chemical Co. Ltd, Abuja.

Email: anyiksm@yahoo.com

Cite this article:

Henry S. O., Ejike D. C.,
Michael I. A., Owuamanam C.
Y. (2024), Social Constructs
of Population Health and
Organizational Sustainability:
A Study of Selected Federal
Universities in Nigeria.
Journal of Advanced Research
and Multidisciplinary Studies
4(2), 163-177. DOI:
10.52589/JARMS-
XAJTU8NP

Manuscript History

Received: 11 Mar 2024

Accepted: 28 May 2024

Published: 27 Jun 2024

Copyright © 2024 The Author(s).

This is an Open Access article
distributed under the terms of
Creative Commons Attribution-
NonCommercial-NoDerivatives
4.0 International (CC BY-NC-ND
4.0), which permits anyone to
share, use, reproduce and
redistribute in any medium,
provided the original author and
source are credited.

ABSTRACT: *Physical and mental health contribute to organizational competitiveness and economic prosperity. Sadly, the knowledge of population health has remained underappreciated among Nigeria's Federal Universities. To bridge this gap, this study evaluated the link between social constructs of population health and sustainability of Nigeria's federal University. To achieve the study intent, the descriptive survey method was utilized. The population of this study comprised senior and junior staff that were randomly selected from federal universities, which was 11,823 staff. Formulated hypothesis was tested using Pearson product moment correlation. The analysis shows a positive relationship between population health determinants and sustainability of Nigeria's federal universities with $r = 0.591$, $n = 387$ and $p = 0.001$ against $P \leq 0.05$, thereby making the coefficient significant.*

KEYWORDS: Population Health determinants; Organisational Sustainability; Social Constructs.



INTRODUCTION

Robust health is the essence of humanity. Health is a state of complete physical and mental well-being not merely the absence of disease or infirmity (Staaaz, n.d.). Health follows income and economic prosperity should be the priority of countries (Alsan et al., 2007); a healthy population translates to healthy organizations and institutions. Healthy employees who emanate from a population are contributors to organisational development and societal progress. In earlier years, Preston (1975) reported that a positive association exists between national income levels and life expectancy. This implies that life expectancy is influenced by disposable income. A significant reason for this link is that higher income levels permit access to health enhancers such as food, clean water and sanitation, education, and medical facilities (Alsan et al., 2007). Employees with good health status increase organisational competitiveness. Over the years, there has been much improvement in the health and life expectancy of the global population. Sadly, the leading causes of death have changed from infectious and parasitic diseases to chronic diseases (Jirojwong, n.d.). These chronic diseases have a direct negative impact on organisational performance and sustainability.

Population health, which is greatly concerned with understanding how health status changes over time, differences in health between populations, and health across the whole life span, is an underappreciated concept among organisations (Staaaz, n.d.). As such, social, physical, environmental and biological spectrums have been identified as determinants of population health. In the earliest times, the determinants of population health were health behaviour, clinical care, physical environment, and social and economic factors (Milsum, 1989). However, an organisation's role in ensuring population health management's efficiency is vital to performance achievement and onward sustenance. Critical to population health is population health management (PHM), which is the organisation of and accountability for the health and healthcare needs of groups of persons utilising proactive strategies and interventions that are coordinated, engaging, clinically meaningful, cost-efficient, and safe for administration (Proctor et al., 2016).

The extent to which an organisation remains operational is a determinant of the population's health status. Sustainability pertains to the non-cessation of activities but a continuous push despite unfavourable situations. Operational sustainability reflects the ability of an enterprise to sustain itself amidst unwanted occurrences. The organisational process of integrating sustainable development goals such as social equality, economic efficiency, and environmental regulation into business practices is the apex of organisational sustainability (Rahman et al., 2022). From the organizations' viewpoints, the three circles of sustainability measurements, like profit, planet and people, represents economic, environmental and social sustainability respectively (Rahman et al., 2022). Organizational sustainability represents an ongoing process rather than a state of perfection (Coblentz, 2002). Core to organisational sustainability and population health is corporate social responsibility (CSR) of organisations. CSR is an obligatory action of organisations towards the well-being of the environment. CSR contributes to population health by improving overall stakeholder health using societal and multi sectoral approaches (Macassa et al., 2017). Regarding population health, the dimension of organisational sustainability that aligns with the study intention is social sustainability. The social aspect of sustainability incorporates the concepts of equity, accessibility, cultural identity, and institutional stability (Rahman et al., 2022). Responsible organisations with sustainability intentions ought to provide answers to the following four questions. Public health



asks: "What must we do to keep people healthy?" Medicine asks: "How do we diagnose and treat people?" Health promotion is concerned with the question: "How do we improve the population's health?" Finally, population health asks: "Why are some people healthier than others?" (Hayes & Glouberman, 1998). As the number of talented employees (prospective and current) affected by mental and physical diseases increases, public institutions will have few skilled employees to work with, hence threatening the performance and sustainability of public institutions. In line with this background, the study intends to evaluate the link between the social construct of population health determinants and sustainability of Nigeria's Federal Universities.

LITERATURE REVIEW

Social Constructs of Population Health

Population health management (PHM) ensures that strategy is focused on maintaining or improving the wellness of the populace to reduce healthcare expenditures over the long term. This pattern of population health management is a continuous health system that creates immediate and uninterrupted connections and interactions that promote ongoing health and proactive care towards ensuring healthy living, prevention, diagnosis, treatment, and home care (Proctor et al., 2016). Population health determinants are factors that affect the overall health status of a population at a given period of time. The determinants of population health include the social and economic environment, the physical environment, and the person's individual characteristics and behaviour (WHO, 2017). This study however focused on the social environment as a determinant of population health. This research adopted the social determinant indices for measuring population health as given by World Health Organization (2017), income and social protection, working life conditions, early childhood development, structural conflict at work, housing, basic amenities and the environment, and social inclusion and non-discrimination.

Income and social protection are essential welfare resources necessary to ensure the individuals' wellbeing and economic security. Income provides the foundation for achieving basic needs, mitigating poverty and inequality and also accessing other opportunities, while social protection ensures people and families are secure in the midst of uncertainties and unforeseen challenges. This includes providing access to healthcare and ensuring safe working conditions. The objectives of social protection initiatives are diverse and encompass enhancing human capital, reducing poverty and vulnerability, improving livelihoods, and addressing the impacts of economic and other shocks. Social protection ensures the essential needs of people are met through its provision of economic and social security. Income and social protection measures assists in promoting equitable distribution of resources and contributes to societal resilience and sustainable development (García & Gruat, 2003; Lundberg et al., 2014; Thimmappa et al., 2021).

Working conditions refer to "the working environment and all existing circumstances affecting labour in the workplace" (WHO, 2006). Manyisa (2015) viewed working life conditions as the environment where a person performs his work, including all physical and psychological factors and conditions that influence his work. Working life conditions exert profound influence on the individual's general wellbeing and broader societal dynamics. Factors such as



fair wages, job security, occupational health and safety standards are capable of causing a significant impact on the workers' physical and mental health (Manyisa, 2015). Work conditions that involve repetitive movements and physical stress, awkward postures, manual material handling, to mention a few are concerns for workers globally as they often create lost days, pain, chronic injury and, in some cases, inability to work (Lahiri et al., 2006). On the other hand, individuals satisfied with their work life condition are prone to achieve greater productivity, as confirmed by Zhenjing et al. (2022).

Early childhood is the period from prenatal development to the age of eight (WHO, 2007). Richter et al. (2019) posited that critical factors shaping health and wellbeing are formed in the early years of life. The exposures and experiences of children during this period guide the development of their psychological and biological functions and structures over their life course. Children with a compromised early childhood development develop fewer social and personal skills as well as limited capacity to benefit from schooling, thereby contributing to their deficiency in work earnings and opportunities as adults (Richter et al., 2019). Richter et al. (2017) thus underscores the critical importance of early childhood interventions, such as quality early education and healthcare services, in promoting children's cognitive, social, and emotional development as it lays the foundation of human capital development. Recognizing the importance of early childhood development is thus imperative for designing holistic social policies that prioritize the well-being of future generations (Shonkoff & Philips, 2000).

Structural conflict at work reflects the tensions and power imbalances inherent within organizational and institutional contexts (Kiitam et al., 2016). Akparep (2021) averred that conflicts arise from disparities in authority, resources, and goals which can impede organizational effectiveness and exacerbate workplace inequalities. Moreover, structural discrimination based on factors such as gender, race, and socioeconomic status often underlies these conflicts, perpetuating systemic injustices (Fibbi et al., 2021). Addressing structural conflict necessitates transformative approaches that challenge existing power structures, promote diversity and inclusion, and foster collaborative decision-making processes (Kiitam et al., 2016).

Access to adequate housing, basic amenities, and a healthy environment is integral to individuals' dignity and quality of life. Housing and basic amenities significantly impact the individual's health and wellbeing. As reflected in the study of Rolfe et al. (2020), the causal relationships between housing deficiencies and poor health outcomes are clearly evident in the way negative physical health effects of overcrowding, damp and mould, in-house toxins, cold indoor temperatures and lack of personal space have been linked to physical and mental illnesses (Rolfe et al., 2020). Hernandez and Suglia (2019) also underscores the multidimensional nature of housing insecurity, encompassing issues such as affordability, accessibility, and housing quality. According to Chowdhury et al. (2017), basic amenities are represented by four indicators, namely quality of dwelling, source of drinking water, status of treatment of drinking water and presence of toilet facility. Continued emphasis on these factors can rein in a lot of avoidable mortality and morbidity. Disparities in access to clean water, sanitation, and green spaces exacerbate socio-economic inequalities and environmental injustices. Adopting a rights-based approach to housing and environmental stewardship is therefore essential for promoting social equity and sustainable development (Hariram et al., 2023).



Social inclusion involves the process of improving the terms on which individuals and groups take part in society without identity discrimination (World Bank, 2007). “It is an absolute right, subject to no conditionality or qualifications such as progressive realisation, appropriateness or feasibility, or public welfare overrides” (Abramson, 2008, pp. 40). For individual team members to collaborate effectively, organizations need to provide a productive and naturally non-discriminatory working environment. (Müller et al., 2022). Employing disadvantaged groups can reduce long-term social and health expenses for society while also ensuring the professional prospects of those individuals (Miethlich & Slahor, 2018). Achieving social inclusion thus demands removing barriers and systemic obstacles that hinder the participation of all members. Promoting social inclusion and adopting anti-discriminatory measures are imperative for building inclusive communities where all individuals can thrive (Jones, 2011).

Organisational Sustainability

In contemporary organizations today, organizational sustainability has become an important notion necessary for an organization’s longevity and survival. Rahman, Wahab and Latiff (2022) referred to organizational sustainability as a multidimensional concept that entails possessing the required leadership, resources, change methods, global perspectives and strategies to advance the sustainable challenges plaguing organizations in recent times. It stresses the importance of an organization’s lifespan and ability to benefit stakeholders and the environment. Engert et al. (2016) underscored critical measures of organizational sustainability, employing a "triple bottom line" concept that incorporates economic, environmental and social sustainability. Beyond these, other factors such as institutional sustainability, moral sustainability and financial sustainability also play pivotal roles as determinants of organizational sustainability. The Three Key Aspects of organizational sustainability are institutional sustainability, financial sustainability, and moral sustainability (Coblentz, 2002).

Institutional sustainability is defined as “the activities of a particular institution related to the facilitation of decision making and implementation of sustainability policies” (Pfahi, 2005, pp. 83). Institutional sustainability encompasses the managerial and technical abilities and skills needed to achieve the objectives, criteria and principles of organizations, and which supports sustainable development in the economic, social/human, societal/institutional and environmental spheres. It focuses on strengthening the identity and role of organisations by developing appropriate institutional competence, managerial skills as well as a social consensus to reinforce the institutional role (Pfahl, 2005; Vig & Kraft, 2006). As highlighted by Nugraha et al. (2023), institutional sustainability centres on the ability of the organization to regenerate and persevere in the long run without losing its relevance in the society.

Financial sustainability, as described by Shivam and Arup (2021, pp. 36), is the “ability of a business to earn profit and grow without external support, earn enough cash and liquidity for uninterrupted business operations and to repay its present and future obligations.” Financial sustainability, as a critical dimension of organizational sustainability, focuses on an organization’s capacity to generate and effectively manage resources over time. Omeri (2015) links financial sustainability to financial capacity and argues that it reflects the organization’s flexibility in reallocating resources in the light of opportunities and threats. Karanja and Kurati (2014) also noted that the attainment of financial sustainability holds paramount importance to the organization for its survival and sustenance. The scope of financial sustainability spreads out across several financial variables, creating a relationship framework that connects the value



and continuity of business operations; hence, Zabolotnyy and Wasilewski (2019) stressed the importance of an organization to align appropriate financial strategy with the current business environment to ensure an adequate level of financial sustainability.

Camilleri (2016) described moral sustainability as the alignment of organizational behaviour with ethical principles and norms to support the society's expectations. Ugoani (2019) likened moral sustainability to ethical sustainability and posited that it is the social and ethical responsibilities an organization has towards its stakeholders and environment. As noted by Ugoani (2019), organizations that embrace moral sustainability promote responsible business practices and ethical behaviour and guide their operations with the principles of accountability and integrity. Ketprapakorn and Kantabutra (2021) also argued that moral sustainability not only improves an organization's reputation and resilience but also supports long-term relationships with stakeholders, incorporating their insights in the organizational decision making. A business organization thus has the moral responsibility to understand the impact of its actions on its immediate environment and society and acknowledge its responsibility to either create contradictions within itself or facilitate its growth (Vuong, La, Nguyen, Ho & Vuong, 2021). Failure to incorporate moral sustainability in its operations may lead to a moral crisis which may affect the success and sustainability of the organization as well as the entire society, as reflected in the study of Zhang, Zhang and Wang (2023). The organization's moral decision making thus plays a pivotal role in determining its capacity to adequately navigate and address the prevailing moral crisis and sustainability challenges (Zhang et al., 2023).

Hypothesis Development

H₀: There is no link between the social constructs of population health and sustainability of Nnamdi Azikiwe University, Awka.

H₁: There is a link between the social construct of population health and sustainability of Nnamdi Azikiwe University, Awka.

MATERIALS AND METHODS

To conduct this study, the researchers utilized the descriptive survey method. The population of this study comprise senior and junior staff of selected Federal Universities in Nigeria. The total number of staff is shown in Table 1.

Table 1: Population Distribution

S/N	Staff Category	Number
1	Senior Staff	5076
2	Junior Staff	6747
	Total	11,823

Source: Field Work, 2023

Using Taro Yamane's formula, a sample size of three hundred and eighty-seven (387) senior and junior staff of the university were examined using a 5-point Likert scale questionnaire. The study variables will be operationalized as revealed in Table 2.

**Table 2: Variables Operationalization and Adoption of Measurement Indices**

Variables	Measurement Indices	Source
Population Health Determinants	<ul style="list-style-type: none"> ● Early Childhood Experience and Biological Embedding of Life Experience ● Social and Economic Slopes ● Work and Working Conditions ● Social Networks & Supports 	Hayes & Glouberman, 1998
Organisational Sustainability	<ul style="list-style-type: none"> ● Institutional Sustainability ● Financial Sustainability ● Moral Sustainability 	Coblentz, 2002

Reliability test was carried out through the test-retest method. Twenty copies of the instrument were administered on 20 members personnel at the Chukwuemeka Odumegwu Ojukwu University, Igbariam. After an interval of two weeks, the same instrument was administered a second time on the same people. Then, the first and second responses were collated and analyzed. The reliability test was carried out through the application of Spearman rank order correlation coefficient. The estimation procedure is as follows:

$$r = 1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

where:

r = the coefficient to be determined

n = Number of response options

d = difference in rank order

1 and 6= constants

The value of the coefficients ranges from -1 to +1.

Table 3: Reliability Estimation for the Research Question

Response Option	Result of 1 st response (x)	Result of 2 nd response (y)	R _x	R _y	R _{x(d)} – R _{y(d)}	d ²
Strongly agree	5	6	2	1	1	1
Agree	7	5	1	2	-1	1
Disagree	4	3	3	4	-1	1
Strongly disagree	3	4	4	3	1	1
Undecided	1	2	5	5	0	0
Total	20	20				4



$$r = 1 - \frac{6(4)}{5(5^2 - 1)} = 1 - \frac{24}{120} = 0.80$$

An estimation value of 0.80 implies that the instrument is statistically reliable.

The data were analyzed qualitatively, using descriptive and inferential statistics of percentages and Pearson Correlation Coefficient respectively, whereas summary statistics (percentages) were used in answering the research question which was already in a Likert scale format, and Pearson Correlation was used to verify the claim of the null hypothesis. All tests were conducted at 0.05 level of significance.

RESULTS

Table 4: Population Health Determinants

S/N	Items of the Questionnaire	Likert Scale Options					Total
		SA	A	D	SD	UN D	
1.	There are experiences I wish I had corrected during my childhood days.	157 (40.6)	165 (42.6)	30 (7.8)	20 (5.2)	15 (3.9)	387 (100)
2.	These uncorrected happenings are significantly negatively impacting my mental well-being.	149 (38.5)	170 (43.9)	30 (7.8)	20 (5.2)	18 (4.7)	387 (100)
3.	Emotional stress (marital or financial worries) are negatively affecting my health status.	151 (39.0)	169 (43.7)	30 (7.8)	20 (5.2)	17 (4.4)	387 (100)
4.	A sense of equal standard of living enhances overall health status.	162 (41.9)	170 (43.9)	25 (6.5)	20 (5.2)	10 (2.6)	387 (100)
5.	Equal distribution of wealth reduces disparity and improves health status.	139 (35.9)	188 (48.6)	30 (7.8)	18 (4.7)	12 (3.1)	387 (100)
6.	Not having control over the work situation contributes to ill-health of personnel in the organization.	149 (38.5)	170 (43.9)	30 (7.8)	20 (5.2)	18 (4.7)	387 (100)
7.	Do you agree with the position of Marmot and Feeney, 1996, that lack of control over the work environment is the greatest contributor to heart diseases?	155 (40.1)	179 (46.3)	20 (5.2)	20 (5.2)	13 (3.4)	387 (100)
8.	Corrections to family, friends and community are very important to health status.	151 (59.0)	169 (43.7)	30 (7.8)	20 (5.2)	17 (4.4)	387 (100)
9.	Policies that foster work support and relationships should be introduced for improved well-being.	160 (41.3)	170 (43.9)	27 (7.0)	15 (3.9)	15 (3.9)	387 (100)
Total		1373	1550	252	173	135	3483
Percentage of Total		(39.4)	(44.5)	(7.2)	(5.0)	(3.9)	(100)

Note: (SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree and UN = Undecided): (Figures in parentheses are percentages)



From Table 4, it could be seen that on the average, 39.4 percent of the respondents strongly agreed with all the statement of the items, 44.5 percent of them merely agreed, 7.2 percent of them disagreed, 5 percent strongly disagreed while 3.9 percent of them were undecided on all the issues raised concerning population health. However, across the items, the result suggests that there are variations in responses. For instance, where 41.9 percent and 43.9 percent of them strongly and merely agreed respectively with Item 4, 35.9 percent and 48.9 percent did so respectively for Item 5. But it is important to note that, all together, 83.9 percent of the respondents on the average agreed with all the statements of the items in the independent variable.

Table 5: Organizational Sustainability

S/N	Items of the Questionnaire	Likert Scale Options					Total
		SA	A	D	SD	UN D	
1.	I am aware of the mission statement of this institution.	150 (38.8)	164 (42.4)	30 (7.8)	23 (5.9)	20 (5.2)	387 (100)
2.	My institution has a well-defined plan that explains how it intends to achieve goals.	160 (41.3)	170 (43.9)	35 (9.0)	12 (3.1)	10 (2.3)	387 (100)
3.	My institution is swift to sanction staff for not calling in sick to work.	155 (40.1)	169 (43.7)	40 (10.3)	13 (3.4)	10 (2.3)	387 (100)
4.	Work rhythm and equipment are monitored and evaluated for upgrade and improvement.	151 (39.0)	175 (45.2)	34 (8.8)	17 (4.4)	10 (2.3)	387 (100)
5.	My institution is self-sufficient in all aspects of functionality.	139 (35.9)	188 (48.6)	30 (7.8)	18 (4.7)	12 (3.1)	387 (100)
6.	In other words, this institution does not depend on external sources for survival.	160 (41.3)	170 (43.9)	27 (7.0)	15 (3.9)	15 (3.9)	387 (100)
7.	The entire staff of the institution are committed to the vision of the Vice Chancellor.	158 (40.8)	167 (43.2)	32 (8.3)	20 (5.2)	10 (2.3)	387 (100)
8.	Commitment of the vision of the Vice Chancellor translates to career advancement of the staff.	169 (43.7)	182 (47.0)	20 (5.2)	10 (2.3)	6 (1.6)	387 (100)
9.	The behaviours of the staff are in conformity to the ethical layouts of the institution.	170 (43.9)	180 (46.5)	25 (6.5)	7 (1.8)	5 (1.3)	387 (100)
Total		1412	1565	273	135	98	3483
Percentage of Total		(40.5)	(44.9)	(7.8)	(3.9)	(2.8)	(100)

Note: (SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree and UN = Undecided): (Figures in parentheses are percentages)

Table 5 is the presentation of dependent variable analysis and it shows that, on the average, 40.5 percent of the respondents strongly agreed with all the statement of the items, 44.9 percent of them equally agreed but not strongly, 7.8 percent of them disagreed, 3.9 percent strongly disagreed and 2.8 percent of them were indifferent regarding all the issues raised to indicate support for the university's sustainability. But apart from the averages as presented above, across the items, the opinions indicate that there are variations in response to the items. For instance, whereas 43.9 percent and 46.5 percent strongly and merely agreed respectively with Item 9, 38.8 percent and 42.4 percent did so respectively for Item 1.



TEST OF HYPOTHESIS

The hypotheses formulated to guide and strengthen the analysis were re-stated and tested in this section of the analysis through the application of Pearson Correlation coefficient as follows:

Table 6: Correlation Analysis

Variables		Organizational Sustainability	Population Health
Organizational Sustainability	Pearson Correlation	1	.591**
	Sig. (2-tailed)		.001
	N	387	387
Population Health	Pearson Correlation	.591**	1
	Sig. (2-tailed)	.001	
	N	387	387

** Correlation is significant at 0.05 level (2-tailed).

Re-Statement of Hypotheses

H₀: Population health constructs do not have significant and positive effect on the sustainability of Nnamdi Azikiwe University, Awka.

H₁: Population health constructs have significant and positive effect on the sustainability of Nnamdi Azikiwe University, Awka.

The results presented in Table 6 show that a positive and strong relationship exists between population health determinant and sustainability of Nnamdi Azikiwe University, Awka with $r = 0.591$, $n = 387$ and $p = 0.001$ against $P \leq 0.05$, thereby making the coefficient significant. Consequently, the null hypothesis was rejected and it was concluded that population health indices have a significant positive effect on sustainability of Nnamdi Azikiwe University, Awka.



DISCUSSION OF FINDINGS

A reciprocal relationship exists between the social determinants of population health and organizational sustainability. As noted by Frank et al. (2023) and Wamu and Winkler (2023), work-related social determinants of health influences the organization and its sustainability practices, thereby shaping the work environment and contributing to the organization's adaptive ability. Similarly, Macassa (2021) further noted that the organization's monitoring and alertness to social determinants of work changes makes room for the organization to proactively tackle emergent challenges and exploit opportunities, thereby enhancing their sustainability. As such, organizations recognizing the dynamism of social determinants of work are more likely to enhance their sustainability as they align their strategies with the work expectations of employees and social responsibility, thereby contributing to the organization's sustainability (Fry & Egel, 2021; Sanusi & Johl, 2022). The social determinants dynamism of work and organizational sustainability thus underscores the significance of strategically managing the changing factors influencing the organization, as echoed by Adekoya (2022). Identifying and reacting to the social determinants dynamism of work can thus enhance organizational resilience and foster sustainability goals.

CONCLUSION AND RECOMMENDATION

There is a link between the social health construct of population health and the sustainability of Nigeria's Federal Universities. From the analysis of findings, the result proved that to a large extent that the sustainability of Nnamdi Azikiwe University depends on the population health of the members of staff. From the measurement indices, the disintegrated elements of sustainability were institutional, financial, and moral sustainability. Hence, population health determinants such as childhood experiences, social economic variables, work and condition for work, and social networks and support are vital indicators that the university's management ought to develop a long-term institutional sustainability plan. As such, the better the university management adequately manages these determinants, the better for the institutional performance. This research is the first of its kind, as no previous study has focused on the effect of population health determinants on the sustainability of a university system. This study empirically proved that adequate management of the social constructs of population health determinants will translate to the sustainability of organisations.

REFERENCES

- Alsan, M., Bloom, D., Canning, D., & Jamison, D. (2007). The consequences of population health for economic performance. *Health, Economic Development and Household Poverty: From Understanding to Action*, October, 21–39. <https://doi.org/10.4324/9780203023570>
- Abramson, B. (2008). *A commentary on the United Nations Convention on the Rights of the Child, article 2: The right of non-discrimination*. <https://brill.com/view/title/11624>.
- Adekoya, O.D. (2022) *Responsible Management: Promoting Work Life Balance Through Social Sustainability And Green HRM*. PhD: University of East London. Available at: <https://repository.uel.ac.uk/download/843de59df259795f1b96396fba1439ff660e5d641e>



- [e72863af14600858e56813/3250400/2022_PhD_Adekoya.pdf](#) [Accessed 31 January 2024]
- Akparep, J.W., Ali, A.A. & Boasu, B.Y. (2021). Organizational conflicts and performance outcomes: The perspective of the council for scientific and industrial research Savanna Agricultural Research Institute, Ghana. *Ghana Journal of Development Studies*, 18 (2), 138-163. DOI/<http://dx.doi.org/10.4314/gjds.v18i2.7>
- Coblentz, J.B. (2002). *Academy for Educational Development*. 1–4.
- Camilleri, M.A. (2016) Corporate Sustainability, Social Responsibility and Environmental Management: An Introduction to Theory and Practice with Case Studies. Available at: https://www.researchgate.net/profile/Mark-Anthony-Camilleri/publication/314122455_Corporate_Sustainability_Social_Responsibility_and_Environmental_Management/links/5c6bc326a6fdcc404ebb10b6/Corporate-Sustainability-Social-Responsibility-and-Environmental-Management.pdf [Accessed 31 January 2024]
- Chowdhury, S., Gupta, I., Prinja, S., & Trivedi, M. (2017). Does Access to Basic Amenities Influence Health Status? Evidence from a Household Survey in Three States of India. *Journal of Infrastructure Development*, 9(1), 23-35. <https://doi.org/10.1177/0974930617701519>
- Engert, S., Rauter, R. and Baumgartner, R. J. (2016) Exploring the Integration of Corporate Sustainability into Strategic Management: A literature review. *Journal of Cleaner Production*, 112(4), 2833– 2850. Available at : <https://doi.org/10.1016/j.jclepro.2015.08.031>
- Fibbi, R., Midtbøen, A.H. & Simon, P. (2021). Theories of Discrimination. In: *Migration and Discrimination*. IMISCOE Research Series. Springer, Cham. https://doi.org/10.1007/978-3-030-67281-2_3
- Frank, J., Mustard, C., Smith, P., Siddiqi, A., Cheng, Y., Burdorf, A. and Rugulies, R. (2023) Work as a social determinant of health in high-income countries: Past, present, and future. *The Lancet*, 402(2023), 1357-1367. Available at: [https://doi.org/10.1016/S0140-6736\(23\)00871-1](https://doi.org/10.1016/S0140-6736(23)00871-1).
- Fry, L.W. and Egel, E. (2021) Global Leadership for Sustainability. *Sustainability*. 13(11), 6360. Available at: <https://doi.org/10.3390/su13116360>
- García, A.B. & Gruat, J. V. (2003). *Social protection: a life cycle continuum investment for social justice, poverty reduction and development*. Geneva: Social Protection Sector. <https://gsdrc.org/document-library/social-protection-a-life-cycle-continuum-investment-for-social-justice-poverty-reduction-and-sustainable-development/>
- Hariram, N.P., Mekha, K.B., Suganthan, V. & Sudhakar, K. (2023) Sustainalism: An Integrated Socio-Economic-Environmental Model to Address Sustainable Development and Sustainability. *Sustainability*, 15(13):10682. <https://doi.org/10.3390/su151310682>
- Hayes, M., & Glouberman, S. (1998). Population health, sustainable development and policy future. *Canadian Policy Research Networks Discussion ...*, 3(September), 14. http://rcrpp.ca/documents/18425_en.pdf
- Hernandez, D. & Suglia, S. (2016) *Housing as a Social Determinant of Health*. <https://healthequity.globalpolicysolutions.org/wp-content/uploads/2016/12/Housing2.pdf>
- Jirojwong, S. (n.d.). *Introduction: Population Health and Health Promotion 1*. 3–25.
- Jones, M. (2011). *Inclusion, social inclusion and participation*. <https://doi.org/10.1163/ej.9789004189508.i-552.24>.



- Karanja, J. and Karuti, J. (2014) Assessment of Factors Influencing Financial Sustainability of Non-Governmental Organizations in Isiolo County, Kenya. *International Journal of Economics, Commerce and Management United Kingdom*, 2(9), 1-14. Available at : <https://ssrn.com/abstract=2528994>. [Accessed 31 January 2024]
- Ketprapakorn, N. and Kantabutra, S. (2021) Toward an Organizational Theory of Sustainability Culture. *Sustainable Production and Consumption*, 32(2022), 638-654. Available at: <https://doi.org/10.1016/j.spc.2022.05.020>.
- Kiitam, A., Mclay, A. & Pilli, T. (2016). Managing conflict in organisational change. *International Journal of Agile Systems and Management*, 9 (2), 1-14. <https://doi.org/10.1504/IJASM.2016.078575>.
- Lahiri, S., Moureeraso, R., Flum, M., Tilly, C., Karasek, R. & Massawe, E. (2006). Employment Conditions as Social Determinants of Health Part I. *Journal of environmental and occupational health policy*, 16(3), 267-288. <https://doi.org/10.2190/U6U0-355M-3K77-P486>.
- Lundberg, O., Yngwe, M.A., Bergqvist, K. & Sjöberg, O. (2014) *The role of income and social protection for inequalities in health, evidence and policy implications*. Euro Health. https://eurohealthnet.eu/wp-content/uploads/documents/Before%202016/15_Protocols_DRIVERS_RoleOfIncomeAndSocialProtectionForInequalitiesInHealth.pdf
- Macassa G. (2021) Social Enterprise, Population Health and Sustainable Development Goal 3: A Public Health Viewpoint. *Annals of global health*, 87(1), 52. Available at: <https://doi.org/10.5334/aogh.3231>
- Macassa, G., Cruz Francisco, J. da, & McGrath, C. (2017). Corporate Social Responsibility and Population Health. *Health Science Journal*, 11(5). <https://doi.org/10.21767/1791-809x.1000528>
- Manyisa, Z.M. (2015). *A conceptual model for improving working conditions in public hospitals in Mpumalanga Province. An occupational health and safety perspective* [PhD Thesis., University of Limpopo, Medunsa]. <https://doi.org/10.25159/2520-5293/4655>
- Miethlich, B. & Šlahor, E. (2018). Creating shared value through implementing vocational rehabilitation in the corporate social responsibility strategy: A literature review', Proceedings of the 32nd IBIMA International Business Information Management Association Conference - Vision 2020: *Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth*. November 2018, Seville, Spain, 1444-1460.
- Müller, J., Striebing, C. & Schraudner, M. (2022). *Diversity and Discrimination in Research Organizations*, Emerald Publishing Limited, Leeds, pp. 3-30. <https://doi.org/10.1108/978-1-80117-956-020221001>
- Milsum, J. (1989). The determinants of health revisited. *Canadian Journal of Public Health*, 80(4), 235-237.
- Nugraha, N., Lhutfi, I., Tanuatmodjo, H., & Triansyah, F.A. (2023) Institutional Sustainability Development of Higher Education in Indonesia. *Dinamika Pendidikan*, 18 (1), 53-65. Available at: <https://doi.org/10.15294/dp.v18i1.43814>
- Omeri, K.L. (2015) Factors influencing the sustainability of Non-governmental organizations: A survey of NGOs in Nakuru County, Kenya. *Journal of Economics, Commerce and Management*, 3(9), 704-744. Available at: <https://ijecm.co.uk/wp-content/uploads/2015/09/3948.pdf> [Accessed 31 January 2024]
- Pfahl, S. (2005) Institutional sustainability. *International Journal of Sustainable Development*,



- 8(1/2), 80-96. Available at: <https://d3pcsg2wj9izr.cloudfront.net/files/6471/articles/6330/f326111104951287.pdf> [Accessed 31 January 2024]
- Proctor, J., Rosenfeld, B.A., & Sweeney, L. (2016). *Implementing a successful population health management program*.
- Rahman, M., Wahab, S.A. and Latiff, A.S (2022) Definitions and Concepts of Organizational Sustainability: A Literature Analysis. *Society & Sustainability*, 4(2), 21-32. Available at: <https://doi.org/10.38157/ss.v4i2.496>
- Richter, L., Black, M. & Britto, P., (2019). Early childhood development: An imperative for action and measurement at scale. *BMJ Glob Health*, 4 (2019), i154–i160. doi:10.1136/bmjgh-2018-001302
- Richter, L.M., Daelmans, B. & Lombardi, J. (2017). Investing in the foundation of sustainable development: Pathways to scale up for early childhood development. *Lancet*, 389(10064), 103–18. [https://doi.org/10.1016/S0140-6736\(16\)31698-1](https://doi.org/10.1016/S0140-6736(16)31698-1)
- Rolfe, S., Garnham, L. & Godwin, J. (2020) Housing as a social determinant of health and wellbeing: developing an empirically-informed realist theoretical framework. *BMC Public Health*, 20, 1138. <https://doi.org/10.1186/s12889-020-09224-0>
- Sanusi, F.A. and Johl, S.K. (2022) Sustainable Internal Corporate Social Responsibility and Solving the Puzzles Of Performance Sustainability among Medium Size Manufacturing Companies: An Empirical Approach. *Heliyon*, 8(8), e10038. Available at: <https://doi.org/10.1016/j.heliyon.2022.e10038>.
- Shivam, K. and Arup, R. (2021) Financial sustainability: An Annotated Bibliography. *Economics and Business Review*, 7(21), 35-60. Available at: <https://doi.org/10.18559/ebr.2021.3.4>
- Shonkoff, J. and Philips D, (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press. DOI: [10.17226/9824](https://doi.org/10.17226/9824)
- Staa, C. B. (n.d.). *Introduction to Population Health Author*.
- Thimmappa, L., Saran, A., D'Souza, S.R.B., & V, B. (2021). Protocol: The effectiveness of social protection interventions in low- and middle-income countries: An evidence and gap map. *Campbell systematic reviews*, 17(3), e1160. <https://doi.org/10.1002/cl2.1160>
- Ugoani, J.N. (2019) Business Ethics and its Effect on Organizational Sustainability. *Global Journal of Social Sciences Studies*, 5(2), 119-131. Available at: <https://doi.org/10.20448/807.5.2.119.131>
- United Nations Research Institute for Social Development (UNRISD) (2015). *Social Inclusion, Poverty Eradication and the 2030 Agenda for Sustainable Development*. United Nations Research Institute for Social Development.
- Vig, N.J. and Kraft, M.E. (2006) *Technology and Politics*. Durham, NC: Duke University Press.
- Vuong, Q.H., La, V.P., Nguyen, H.K., Ho, M.T., Vuong T.T. and Ho, M.T. (2021) Identifying the Moral–Practical Gaps in Corporate Social Responsibility Missions of Vietnamese firms: An Event-Based Analysis of Sustainability Feasibility. *Corporate. Social Responsible Environment Management*, 28(1), 30–41. Available at: <https://doi.org/10.1002/csr.2029>
- Wamu, S. and Winkler, K. (2023) *Sustainability Leadership and Employee Satisfaction in Small and Medium-sized Enterprises. An Exploratory Study in Germany and Sweden*. MA, Malmö University. Available at: <https://mau.diva-portal.org/smash/get/diva2:1777856/FULLTEXT02.pdf>



- World Bank (2017) *Social Inclusion*, <https://www.worldbank.org/en/topic/social-inclusion>
- World Health Organization (2006). *The World Health Report 2006: Working together for health*. <https://reliefweb.int/report/world/working-together-health-world-health-report-2006>
- World Health Organization (2007). *Early child development: A powerful equalizer*. https://cdn.who.int/media/docs/default-source/documents/social-determinants-of-health/early-child-knowledge-network-final-report-2007.pdf?sfvrsn=d2e68257_3
- Zabolotnyy, S. and Wasilewski, M. (2019) The Concept of Financial Sustainability Measurement: A Case of Food Companies from Northern Europe. *Sustainability*, 11(18), 5139. Available at: <https://doi.org/10.3390/su11185139>
- Zhang, D., Zhang, C., Wang, L. (2023) Preventing Moral Crisis and Promoting Sustainable Development in Enterprises: A Study of Managers' Moral Decision-Making. *Sustainability*, 15(15), 11679. Available at: <https://doi.org/10.3390/su151511679>
- Zhenjing, G., Chupradit, S., Ku, K. Y., Nassani, A. A., & Haffar, M. (2022). Impact of Employees' Workplace Environment on Employees' Performance: A Multi-Mediation Model. *Frontiers in public health*, 10, 890400. <https://doi.org/10.3389/fpubh.2022.890400>