Online ISSN : 2249-460X
Print ISSN : 0975-587X
DOI : 10.17406/GJHSS

Global Journal

of Human Social Sciences: H

Interdisciplinary



Refugee Housing Accessibility

Enhancing Building Depreciation Models

Highlights

Factors in Modern Built Heritage

Developmental Finance in Sub-Saharan Africa

Discovering Thoughts, Inventing Future

VOLUME 24 ISSUE 4 VERSION 1.0

© 2001-2024 by Global Journal of Human Social Sciences, USA

Volume 24 Issue 27 was originally issued as H4

Global Journal of Human-Social Science: H
Interdisciplinary

Volume 24 Issue 27
Originally issued as H4

Global Journal of Human-Social Science: H
Interdisciplinary

Volume 24 Issue 4 (Ver. 1.0)

Open Association of Research Society

© Global Journal of Human Social Sciences. 2024.

All rights reserved.

This is a special issue published in version 1.0 of "Global Journal of Human Social Sciences." By Global Journals Inc.

All articles are open access articles distributed under "Global Journal of Human Social Sciences"

Reading License, which permits restricted use. Entire contents are copyright by of "Global Journal of Human Social Sciences" unless otherwise noted on specific articles.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without written permission.

The opinions and statements made in this book are those of the authors concerned. Ultraculture has not verified and neither confirms nor denies any of the foregoing and no warranty or fitness is implied.

Engage with the contents herein at your own risk.

The use of this journal, and the terms and conditions for our providing information, is governed by our Disclaimer, Terms and Conditions and Privacy Policy given on our website http://globaljournals.us/terms-and-condition/menu-id-1463/

By referring / using / reading / any type of association / referencing this journal, this signifies and you acknowledge that you have read them and that you accept and will be bound by the terms thereof.

All information, journals, this journal, activities undertaken, materials, services and our website, terms and conditions, privacy policy, and this journal is subject to change anytime without any prior notice.

Incorporation No.: 0423089
License No.: 42125/022010/1186
Registration No.: 430374
Import-Export Code: 1109007027
Employer Identification Number (EIN):
USA Tax ID: 98-0673427

Global Journals Inc.

*(A Delaware USA Incorporation with "Good Standing"; **Reg. Number: 0423089**)*

Sponsors: Open Association of Research Society
Open Scientific Standards

Publisher's Headquarters office

Global Journals® Headquarters
945th Concord Streets,
Framingham Massachusetts Pin: 01701,
United States of America
USA Toll Free: +001-888-839-7392
USA Toll Free Fax: +001-888-839-7392

Offset Typesetting

Global Journals Incorporated
2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey,
Pin: CR9 2ER, United Kingdom

Packaging & Continental Dispatching

Global Journals Pvt Ltd
E-3130 Sudama Nagar, Near Gopur Square,
Indore, M.P., Pin:452009, India

Find a correspondence nodal officer near you

To find nodal officer of your country, please email us at *local@globaljournals.org*

eContacts

Press Inquiries: *press@globaljournals.org*
Investor Inquiries: *investors@globaljournals.org*
Technical Support: *technology@globaljournals.org*
Media & Releases: *media@globaljournals.org*

Pricing (Excluding Air Parcel Charges):

Yearly Subscription (Personal & Institutional)
250 USD (B/W) & 350 USD (Color)

Editorial Board

Global Journal of Human-Social Science

Dr. Arturo Diaz Suarez

Ed.D., Ph.D. in Physical Education Professor at University of Murcia, Spain

Dr. Prasad V Bidarkota

Ph.D., Department of Economics Florida International University United States

Dr. Alis Puteh

Ph.D. (Edu.Policy) UUM Sintok, Kedah, Malaysia M.Ed (Curr. & Inst.) University of Houston, United States

Dr. André Luiz Pinto

Doctorate in Geology, PhD in Geosciences and Environment, Universidade Estadual Paulista Julio de Mesuita Filho, UNESP, Sao Paulo, Brazil

Dr. Hamada Hassanein

Ph.D, MA in Linguistics, BA & Education in English, Department of English, Faculty of Education, Mansoura University, Mansoura, Egypt

Dr. Asuncin Lpez-Varela

BA, MA (Hons), Ph.D. (Hons) Facultad de Filolog?a. Universidad Complutense Madrid 29040 Madrid Spain

Dr. Faisal G. Khamis

Ph.D in Statistics, Faculty of Economics & Administrative Sciences / AL-Zaytoonah University of Jordan, Jordan

Dr. Adrian Armstrong

BSc Geography, LSE, 1970 Ph.D. Geography (Geomorphology) Kings College London 1980 Ordained Priest, Church of England 1988 Taunton, Somerset, United Kingdom

Dr. Gisela Steins

Ph.D. Psychology, University of Bielefeld, Germany Professor, General and Social Psychology, University of Duisburg-Essen, Germany

Dr. Stephen E. Haggerty

Ph.D. Geology & Geophysics, University of London Associate Professor University of Massachusetts, United States

Dr. Helmut Digel

Ph.D. University of Tbingen, Germany Honorary President of German Athletic Federation (DLV), Germany

Dr. Tanyawat Khampa

Ph.d in Candidate (Social Development), MA. in Social Development, BS. in Sociology and Anthropology, Naresuan University, Thailand

Dr. Gomez-Piqueras, Pedro

Ph.D in Sport Sciences, University Castilla La Mancha, Spain

Dr. Mohammed Nasser Al-Suqri

Ph.D., M.S., B.A in Library and Information Management, Sultan Qaboos University, Oman

Dr. Giaime Berti

Ph.D. School of Economics and Management University of Florence, Italy

Dr. Valerie Zawilski

Associate Professor, Ph.D., University of Toronto MA - Ontario Institute for Studies in Education, Canada

Dr. Edward C. Hoang

Ph.D., Department of Economics, University of Colorado United States

Dr. Intakhab Alam Khan

Ph.D. in Doctorate of Philosophy in Education, King Abdul Aziz University, Saudi Arabia

Dr. Kaneko Mamoru

Ph.D., Tokyo Institute of Technology Structural Engineering Faculty of Political Science and Economics, Waseda University, Tokyo, Japan

Dr. Joaquin Linne

Ph. D in Social Sciences, University of Buenos Aires, Argentina

Dr. Hugo Nami

Ph.D.in Anthropological Sciences, Universidad of Buenos Aires, Argentina, University of Buenos Aires, Argentina

Dr. Luisa dall'Acqua

Ph.D. in Sociology (Decisional Risk sector), Master MU2, College Teacher, in Philosophy (Italy), Edu-Research Group, Zrich/Lugano

Dr. Vesna Stankovic Pejnovic

Ph. D. Philosophy Zagreb, Croatia Rusveltova, Skopje Macedonia

Dr. Raymond K. H. Chan

Ph.D., Sociology, University of Essex, UK Associate Professor City University of Hong Kong, China

Dr. Tao Yang

Ohio State University M.S. Kansas State University B.E. Zhejiang University, China

Mr. Rahul Bhanubhai Chauhan

B.com., M.com., MBA, PhD (Pursuing), Assistant Professor, Parul Institute of Business Administration,
Parul University, Baroda, India

Dr. Rita Mano

Ph.D. Rand Corporation and University of California, Los Angeles, USA Dep. of Human Services, University of Haifa Israel

Dr. Cosimo Magazzino

Aggregate Professor, Roma Tre University Rome, 00145, Italy

Dr. S.R. Adlin Asha Johnson

Ph.D, M. Phil., M. A., B. A in English Literature, Bharathiar University, Coimbatore, India

Dr. Thierry Feuillet

Ph.D in Geomorphology, Master's Degree in Geomorphology, University of Nantes, France

Contents of the Issue

i. Copyright Notice
ii. Editorial Board Members
iii. Chief Author and Dean
iv. Contents of the Issue

1. Econometric Determinants of Chinese Developmental Finance in Sub-Saharan Africa; Further Evidence using a Flow-Type Decomposed Poisson Pseudo-Maximum Likelihood Model. *1-18*
2. Enhancing Building Depreciation Models: Integrating Obsolescence Factors in Modern Built Heritage. *19-25*
3. Impact of COVID-19 Lockdown: Stratified Livelihoods in Nepal a Sociological Analysis. *27-35*
4. Refugee Housing Accessibility with a Strategic Digital City Project. *37-50*
5. Perspectives Social Engineering and its Contextfor Development in Nepal. *51-53*

v. Fellows
vi. Auxiliary Memberships
vii. Preferred Author Guidelines
viii. Index

Global Journal of human-social science: H Interdisciplinary
Volume 24 Issue 4 Version 1.0 Year 2024
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Econometric Determinants of Chinese Developmental Finance in Sub-Saharan Africa; Further Evidence using a Flow-Type Decomposed Poisson Pseudo-Maximum Likelihood Model

By Xin Zhang & Taehyun Kim
North London Collegiate School

Abstract- Chinese "aid" has long engendered criticism. Western pundits and policymakers posit it as a political tool employed by Beijing to as way foreign policy concessions and secure natural resources access for its domestic industries, often at the expense of the recipient country. However, we argue that large amounts of these claims lack empirical scrutiny or have been hindered by enduring conceptual, methodological, and data-centric constraints. This paper thus aims to refine and integrate prevailing methodological practices to produce a more nuanced understanding of Chinese motivations. Using empirical regression analysis and a newly released granular dataset spanning 48 Sub-Saharan African countries from 2000-2021, we: (1) decompose Chinese "aid" into flow types of relative concessionality; (2) utilize a Poisson pseudo-maximum likelihood (PPML) estimator to mitigate log-transformation and heteroskedasticity concerns present within traditional modeling of zero-inflated datasets; (3) retain a subset of contemporary values to deal with issues related to simultaneity in our regressors.

Keywords: developmental finance, concessionality, econometrics, zero-inflation, poisson pseudo-maximum likelihood (PPML).

GJHSS-H Classification: FOR Code: 1650



Strictly as per the compliance and regulations of:

© 2024. Xin Zhang & Taehyun Kim. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

Econometric Determinants of Chinese Developmental Finance in Sub-Saharan Africa; Further Evidence using a Flow-Type Decomposed Poisson Pseudo-Maximum Likelihood Model

Xin Zhang [α] & Taehyun Kim [σ]

Abstract- Chinese "aid" has long engendered criticism. Western pundits and policymakers posit it as a political tool employed by Beijing to as way foreign policy concessions and secure natural resources access for its domestic industries, often at the expense of the recipient country. However, we argue that large amounts of these claims lack empirical scrutiny or have been hindered by enduring conceptual, methodological, and data-centric constraints. This paper thus aims to refine and integrate prevailing methodological practices to produce a more nuanced understanding of Chinese motivations. Using empirical regression analysis and a newly released granular dataset spanning 48 Sub-Saharan African countries from 2000-2021, we: (1) decompose Chinese "aid" into flow types of relative concessionality; (2) utilize a Poisson pseudo-maximum likelihood (PPML) estimator to mitigate log-transformation and heteroskedasticity concerns present within traditional modeling of zero-inflated datasets; (3) retain a subset of contemporary values to deal with issues related to simultaneity in our regressors. Our findings suggest that while developmental goals primarily drive concessional aid, commercial lending is moreso influenced by economic self-interest, which is often incorrectly conflated with "aid" in the traditional sense. Further, Chinese "aid" does not flow disproportionately to corrupt or authoritarian regimes. This challenges the dominant "rogue donor" narrative and contributes to a more comprehensive perspective on China's emerging role in global developmental finance.

Keywords: developmental finance, concessionality, econometrics, zero-inflation, poisson pseudo-maximum likelihood (PPML).

I. Introduction

For Africa, meeting the United Nations (UN) Sustainable Development Goals (SDGs) necessitates excess commitments of 1.6 trillion dollars in capital spending by 2030 (OECD, 2023a). Confronted with a paucity of domestic resources and poor political will, international lending and developmental finance (LDF) vis-a-vis foreign aid and concessional or commercial loans serve as an increasingly critical lifeline to bridge the continent's protracted fiscal gap (Ayuso & Hoffmann, 2019). Historically, Western nations within the Organization for Economic Cooperation and Development's (OECD) Developmental Assistance Committee (DAC) have largely been deemed the de facto providers of such aid programs. However, more contemporary scholarship has shifted the spotlight to 'non-traditional' or 'emerging' donors in the global economic arena, such as Brazil, India, Iran, Qatar, Venezuela, and most notably, the People's Republic of China (PRC).

Indeed, the turn of the millennium marked a profound external policy shift for the PRC. The adoption of the 'Go Out' national policy in 1999 and subsequent implementation of the Belt and Road Initiative (BRI) in 2013 cemented the country as a pivotal economic partner and foreign aid distributor, channeling over 200 billion dollars into Sub-Saharan Africa alone over the past two decades (Custer et al., 2023). The prevailing wisdom of Western policymakers and pundits has long cast Chinese economic statecraft as far more egoistic and self-serving, designed to curate political favors, secure unfair commercial advantages for its domestic entities, and exploit resource-rich developing nations (Naim, 2007). Such is the common argument of the 'rogue donor' narrative. In stark contrast, official Chinese rhetoric on the matter underscores more altruistic intentions, referencing notions of economic interdependence and non-zero-sum 'win-win' outcomes amidst a globalized economy (Liu & Dunford, 2016). Such duality has ignited much popular debate, polarizing opinions into the 'China Threat' and 'China Opportunity' paradigms of thought (Cable & Ferdinand, 1994).

Yet, despite burgeoning political, media, and academic interest (Drezner, 2009; Fordham & Kleinberg, 2011; Flores-Macías & Kreps, 2013; Fuchs & Klann, 2013; Liao & McDowell, 2015; Kastner, 2016; Norris, 2016), quantitative empirical scrutiny of the PRC's underlying motivations remains largely hindered by conceptual, methodological or data-centric constraints. The PRC, along with other non-traditional donors, has withdrawn from the Western-led DAC regime of voluntary reporting norms, complicating attempted efforts to quantify its contributions (Kaplinsky & Morris, 2009). Moreover, systematic challenges remain in the empirical modeling of discontinuous country-level aid commitments with high zero-skewed distribution. The further conflation of concessional-based official developmental assistance (ODA) and commercially-

Author σ: North London Collegiate School Jeju.
e-mail: tk682@cornell.edu

© 2024 Global Journals

oriented other official finance (OOF) has led to much ambiguity regarding the motivations driving Chinese economic engagement with the continent, as differing factors likely influence the distribution of each flow type (Dreher et al., 2018).

Thus, using the newest version of AidData's dataset assembled by Custer et al. (2023) and regression analysis, this paper examines recipient country determinants underlying the PRC's allocation of developmental finance in Sub-Saharan Africa, decomposing commitments into flow types of relative concessionality. We then consider how the recipient nation's need, merit, and ability to fulfill the donors' own self-interest influence the various developmental, political, and economic intents of the PRC and its subsequent distribution of capital to individual nations.

Our contribution to the unfolding literature on Chinese aid determinations is novel in two aspects. Firstly, we extend our analysis to include the newest Version 3.0 of the AidData dataset up to the year 2021, providing a more pertinent understanding of evolving concurrent dynamics. Secondly, we refine and integrate prevailing methodological practices within the existing corpus of aid distribution literature. We introduce (1) the utilization of a Poisson pseudo-maximum likelihood (PPML) estimator to mitigate log-transformation and heteroskedasticity concerns present within traditional Ordinary Least Squares (OLS) modeling of zero-inflated datasets; (2) a novel approach to time-lagging regressor to handle issues related to simultaneity.

In what follows, we clarify that different types of developmental finance should advance different objectives on the part of the PRC. We then introduce the data and novel empirical strategy used to test our hypotheses before presenting the results, subsequent explanations, and conclusions. By doing so, we attempt to form a more nuanced and complete picture of Chinese financial assistance in Sub-Saharan Africa.

II. Between Aid and Loans

In the realm of international development finance literature, divergent categorization standards between DAC and non-DAC donors — including the PRC — have historically led to wildly disparate incongruities in scholarly comparison.[1] To harmonize these discrepancies, our analysis follows Dreher et al. (2018) and employs second-hand OECD-DAC criteria to reclassify the PRC's foreign financial activities into official development assistance and other official finance.[2] Within this framework, we use 'foreign aid' and 'developmental finance' interchangeably to denote the entirety of Chinese state assistance while distinguishing between representational 'ODA-like' and commercial 'OOF-like' categorizations when referencing explicitly developmental- or market-motivated commitments.

The OECD defines official developmental assistance as "government aid that promotes and specifically targets the economic development and welfare of developing countries" (OECD, 2023b). As such, ODA is concessional in nature and can encompass both grants and soft loans. Grants are the most substantial of Chinese commitments, underpinning small and medium-sized social welfare projects, technical assistance, material commodities, humanitarian aid, and training programs (Bräutigam, 2011a; Springer et al., 2023). Interest-free loans are geared primarily towards public infrastructure projects — marked by extended maturities and grace periods — while the RMB-denominated concessional loans offer terms more favorable than market rates, often earmarked for substantial medium to large-scale infrastructure projects (Springer et al., 2023). Meanwhile, other official finance is not sufficiently developmental but serves "representational or essentially commercial purposes" (OECD, 2023c). This form of financing, extended at near-market terms, primarily aims to advance the donor country's economic interests rather than the developmental goals of the recipient country. The most significant Chinese OOF-like commitments are commercial loans guided by floating rates benchmarked against the London Inter-Bank Offered Rate (LIBOR), often structured as consortiums and offered to African banks (Springer et al., 2023). Preferential export buyer's credits, though similar to ODA in maturity and grace terms, mainly serve to facilitate the sale of its goods and services to importing countries, while standard export and supplier credits achieve similar purposes without such favorable terms (Hwang et al., 2022; Chen, 2020).

As outlined in its published documents, the extent and direction of ODA-like foreign aid funds are centralized under the aegis of the China International Development Cooperation Agency (CIDCA) and the Ministry of Foreign Affairs (MOFA), while the Chinese Ministry of Commerce (MOFCOM) acts as one of the implementing departments (China International Development Cooperation Agency, 2021). Predominantly, both concessional and commercial loans are issued by developmental finance institutions (DFIs), with the Export-Import Bank of China (CHEXIM) and China Development Bank (CDB) assigned as principal actors in this regard. Other state-owned commercial banks and contractors also have significant roles in this financial landscape, with the China Export and Credit Insurance Corporation (Sinosure) providing insurance for export credits and commercial loans. Supplier credits, meanwhile, are issued by Chinese companies and contractors. However, even such

[1] See 'Supplementary File A' of (Dreher et al., 2018), which contains a table of fifteen different published estimates of the value of developmental finance from China to Africa, ranging from half a million to almost 18 billion dollars annually.

[2] Section 4.1 covers the construction and categorization of the dataset in greater depth. See Custer et al., (2023) and Strange et al., (2015) for more information regarding the granular data collection process.

© 2024 Global Journals

ostensibly commercial transactions are earmarked by an unmistakable presence of the central state government, reflecting the intricate interplay of private and governmental motivations in the proverbial Chinese model of 'State-Sponsored Capitalism' (Pelzman, 2014).

III. Determinants of Chinese Developmental Finance

In our analysis, we acknowledge several compounding economic, developmental, and political motivations on the part of the PRC that influence the allocation of developmental finance in Sub-Saharan Africa.[3]

a) Developmental Objectives

Principally, the theoretical rationale of aid allocation is a deficit of domestic capital in the recipient country and the donor's ability to reduce socio-economic inequality (Maizels & Nissanke, 1984; McKinlay & Little, 1977). Despite the African countries's lack of capital, global organizations such as the International Monetary Fund (IMF) do not actively support them due to their poor credit scores and a genuine lack of creditworthiness; the structural issues and price fluctuations remain as major risks, despite the banking system's growth in Sub-Saharan Africa over the past decade, holding many African countries back from achieving a level of creditworthiness from the creditors (Nikolaidou & Vogiazas, 2017; Weisbrot, 2019; Biglaiser & McGauvran, 2022; Daoud et al., 2022). Ultimately, the PRC acts as an international lender of last resort for such countries (Horn et al., 2023). The establishment of the Asian Infrastructure Investment Bank (AIIB) in 2016 further highlights the PRC's developmental intents (Chow, 2016). This marked a shift in economic power from the traditional Western counterparts to China in increasing "South-South" cooperation as African countries continue to lessen their dependence on their former Western colonizers (Freitas, 2023). In addition to considering the inherent developmental 'needs' of the recipients for their aid programs, China would also likely consider its internal political stability, which likely directly affects the success of the programs; for example, the Chinese government reduced its developmental finance allocation to South Sudan following the unrest caused by its Civil War in 2013 (Aulia, 2021). Naturally, the majority of developmental finance in such a context is concessional in nature.

b) Political Objectives

Beyond development, extensive qualitative research substantiates the traditional notion that concessional foreign aid exists as an explicit foreign policy instrument strategically disbursed by Western nations to reinforce alliances, punish geopolitical enemies, sway public sentiment in favor of the donor, and broadly exert soft power influence internationally (Packenham, 1966; McKinlay & Little, 1977; Vreeland & Dreher, 2014). There is little in the way of theoretical opposition that would indicate a different behavior from non-DAC donors, with recent studies indicating that China often leverages concessional aid to garner political support, sway the voting behavior of recipient nations in international forums, and secure diplomatic recognition — often at Taiwan's expense (Dreher & Fuchs, 2015; Zhao et al., 2018). Unlike Western donors, however, China claims to adhere to a policy of political non-interference in the domestic affairs of sovereign governments, wherein the recipient nation's internal institutional and governance quality is deemed irrelevant (Zheng, 2016). This is in sharp contrast to the Western world's tendency to utilize foreign aid to promote the emergence or consolidation of democracies abroad, leading to the standard critique of China's policy as a convenient facade for engaging with and propping up non-democratic or corrupt regimes (Kurlantzick, 2007).

As argued by Dreher et al. (2018), the ability of the donor to exert such influence and secure or reward policy concessions rises with the level of concessionality offered in — and thus the perceived relative valuability of — its financial package. Consequently, we hypothesize that ODA distribution is principally designed to pursue such foreign policy objectives. This is bolstered by the lack of a stand-alone Chinese foreign aid agency; rather, political entities (MOFCOM and MOFA) directly responsible for diplomatic engagement and coalition building within international organizations also control and influence the allocation of ODA (See Section 2). However, such political motivations might still play a lesser role in allocating OOF. For one, strong ties exist between political actors and investment or loan decisions made in the PRC, as evidenced by the state-owned financial institutions' executive nomination and governing structures (Kong & Gallagher, 2016). The state council also wields jurisdiction over the CDB and CHEXIM — the primary distributors of market-based loans — feeding into the prevailing narrative and critique that the PRC's financial involvements as a whole are excessively politically motivated compared to its Western equivalents (Kong & Gallagher, 2016; Dreher & Fuchs, 2015).

c) Economic Objectives

Meanwhile, we expect the economic considerations of developmental finance to be almost exclusively restricted to commercial projects that

[3] While our study is concerned with the allocation behavior exhibited by the Chinese donor, it is also crucial to acknowledge the withstanding agency of the recipient nation. The decision to initially seek or accept foreign assistance is a multifaceted process influenced and ultimately made by actors in the recipient country. Such, while significant, lies beyond the purview of this paper.

© 2024 Global Journals

provide capital-rich creditors with an opportunity to obtain notable market-orthodox economic returns and symmetric international gains by working with capital-poor recipients (Moravcsik, 1989). Principally, the PRC's "going global" strategy was designed to stimulate domestic firms to establish a foreign commercial presence (Bräutigam, 2011a). China, by investing its foreign exchange reserves in 'bankable' economic activities and commercial projects, can deliver strong returns and potentially secure future contracts (Chen & Orr, 2009; Corkin, 2011; Sun, 2014). Meanwhile, subsequent economic instruments, such as export sellers' and buyers' credits, share the purpose of advancing national economic interests by assisting businesses in trade-oriented countries (Kobayashi, 2008). Donors often exhibit sensitivity to the borrower's creditworthiness, which is indicative of the rate of returns and the likelihood of ultimate repayment with interest (Alesina & Dollar, 2000; Evrensel, 2004). Naturally, China, as the largest capital exporter in the world, is peculiarly exposed to, and will thus attempt to minimize, the market risks associated with these projects (Evrensel, 2004). Further, as political turmoil and violence could jeopardize Chinese fiscal investment and returns (Johnston & Rudyak, 2017; Yuan et al., 2022), there is often a similar emphasis placed on state stability.

Moreover, a central notion regarding the economic objectives behind the PRC's expansion of foreign developmental finance is its need to fulfill its domestic deficit and rising natural resource demand, which is required in order to sustain its economic growth and internal stability (Kobayashi, 2008; Mohan & Power, 2008; Lum et al., 2009; Tull, 2006; Dreher & Fuchs, 2015). The significance of PRC's resource motivation is further evident when considering the fact that commercial loans are often repaid with underlying resource collaterals such as coal, gas, or oil (Bräutigam & Gallagher, 2014; Niczyporuk & Urpelainen, 2021). All of these considerations are indicative of the broader trend — less concessional and more commercial forms of Chinese official financing should adhere to such economic interests.

IV. Data

We examine a panel dataset of 48 Sub-Saharan African countries over 22 years (from 2000-2021), culminating in 1104 individual observations.

a) Dependent Variable

As noted above, the PRC does not systematically publish project-level nor aggregated data on its developmental finance commitments abroad. In the presence of such constraints, we use the 'Global Chinese Development Finance Dataset V3.0 (Custer et al., 2023), which is assembled by William and Mary's AidData Research lab and employs an open-source 'Tracking Underreported Financial Flows' (TUFF) methodology to construct a granular dataset on the PRC's official financing activities (Strange et al., 2015). Between 2000 and 2021, AidData recorded 9347 individual commitments to Sub-Saharan Africa, of which 4581 or 49% were financially backed. By value, ODA-like projects accounted for 15.7% of total commitments, while OOF-like and 'Vague (Official Finance)' contracts represented 68.6% and 15.7%, respectively.

To construct the dependent variable, we use 'Adjusted Amount (Constant USD, 2021)' to calculate additive aggregation of discrete project-level decisions for the specific country year compositions, disaggregating the cumulative value by flow types of relative concessionality deemed ODA-like and OOF-like to capture the multidimensionality of various country-specific influences. Following Dreher et al. (2018), we recategorize 'Vague (Official Finance)' as "OOF-like." We exclude projects where 'Recommended for Aggregates' is coded as no. We also exclude projects from regional entities without a breakdown of the national destination. Countries that did not receive at least one program for the specified country year designations were subsequently assigned zero values.

b) Independent Variable

To analyze the significance of the differing Chinese motivations outlined in Section 3, we analyze sets of covariates in relation to the recipient nation's need, merit, and capacity to fulfill the donors' self-interest. The selected regressors and corresponding categorizations are largely conventional within the extant literature. (Berthélemy, 2006; Hoeffler & Outram, 2011; Dreher & Fuchs, 2015; Dreher et al., 2018; Zhao et al., 2018; Guillon & Mathonnat, 2020; Sauer et al., 2022). Tables 1.1 and 1.2 provide summarizations and descriptive statistics.

© 2024 Global Journals

Table 1: Summary of Explanatory Covariates

Category	Variable Name	Variable Description
Donor Interest	UNGA Voting	UNGA ideal point estimate with China, continuous scale from 0 (no agreement) to +1 (full agreement)
	Taiwan	Taiwan recognition, binary indicator of 0 (no recognition) and +1 (formal recognition)
	Ores and Metals Exports (log)	Ores and metals merchandise exports, constant 2021 USD, log-transformed
	Mineral Production (log)	Mineral production, metric tons, log-transformed
Recipient Merit	Democracy (lag)	Democracy index, discrete scale from +1 (hard autocracy) to +5 (full democracy), lagged
	Corruption Control (lag)	Corruption control index, Continuous scale from -2.5 (high corruption) to +2.5 (low corruption), lagged
	Political Stability (lag)	Political stability index, Continuous scale from -2.5 (high instability) to +2.5 (high stability), lagged
Recipient Need	Debt to GDP (lag)	Central debt, as a percentage of GDP, lagged
	GDP per Capita (log, lag)	GDP per capita, constant 2021 USD, log-transformed, lagged
	Population (log, lag)	Total population, log-transformed, lagged

Various sources (See Section 4.2)

Table 2: Descriptive Statistics of Explanatory Covariates

Category	Variable	Objects	Mean	Standard dev.	Min	Max
Donor Interest	UNGA Voting	1104	0.81	0.13	0	1
	Taiwan	1104	0.054	0.23	0	1
	Ores and Metals Exports	826	9.34*e* +10	3.71*e* +11	0	86.42
	Mineral Production	1104	1.39*e* +07	4.71*e* +07	0	3.38*e* +08
Recipient Merit	Democracy	1006	3.13	1.14	1	5
	Corruption Control	999	-0.65	0.65	-1.94	1.60
	Political Stability	998	-0.57	0.93	-3.31	1.28
Recipient Need	Debt to GDP	961	65.18	67.48	0.49	658.22
	GDP per Capita	1062	2083.86	2741.72	251.38	16747.34
	Population	1104	1.86*e* +07	2.86*e* +07	80410	2.13*e* +08

Descriptive statistics rounded at 2d.p.; e+ denotes scientific notation (base 10); various sources (See Section 4.2) and authors' calculations (Stata SE 18.0).

© 2024 Global Journals

The donor interest category encapsulates covariates that reflect the PRC's strategic and economic motivations. The first variable within this classification is the recipient country's voting alignment with the PRC in the UN General Assembly (UNGA). Despite its nonbinding nature, academics often concur that a country's foreign policy preferences and geopolitical stance on global issues are best understood by analyzing UNGA voting patterns (Khan, 2020); such ideological concurrence and compatibility may cater to the strategic motivations of the PRC and is common in aid estimation literature (Dreher & Fuchs, 2015; Dreher et al., 2018; Zhao et al., 2018; Guillon & Mathonnat, 2020; Sauer et al., 2022). We use the Harvard Dataverse United Nations General Assembly Voting Data 'Ideal Point Distances' procured by Voetan et al. (2009), which reflects a continuous scale from 0 (no agreement) to +1 (full agreement). As a secondary data point, we follow other publications (Dreher & Fuchs, 2015; Dreher et al., 2018; Guillon & Mathonnat, 2020; Hoeffler & Sterck, 2022) and construct a dummy binary Taiwan recognition variable using information from Kironska (2022), distinguishing between countries that formally recognize Taiwan (1) from those that do not (0). At the turn of the century, 8 Sub-Saharan countries had formal diplomatic ties with Taiwan, which dwindled to only Eswatini by 2021. Both theoretical postulations and empirical evidence concur on the importance of non-recognition for the PRC as foundational to the forming of any bilateral relationship; Taiwan is considered internally by the central government as an inalienable part of the PRC's territory (Bush, 2017; Shattuck, 2020).[4]

To analyze the influence of resource endowment in the recipient country, we first use the established 'Ores and Metals Exports (% of merchandise exports)' variable from the World Bank World Development Index (The World Bank, n.d.). We deviate slightly from other publications (Yang et al., 2018; Sauer et al., 2022), opting instead to calculate the real absolute value in constant 2021 USD; the former has the potential to produce biased coefficients as the percentage indicator is relative to the value of total merchandise exports, which varies significantly across countries.[5] We include a secondary data point of 'Total Minerals Production' in metric tons procured by the Austrian Ministry of Finance's World Mining Database (World Mining Data, n.d.).[6] The justification to include both variables is twofold. First, the 'Ores and Metals Exports' indicator only captures the value of export-oriented commodities rather than the absolute amount produced available, which has the potential to lead to underestimated coefficient values. However, in isolation, the 'Mineral Production' variable could be considered too simplistic as it does not distinguish between the commodities intended for domestic and foreign consumption; only the latter would asway the PRC's acquisitional motivations. Beyond acting as a measurement of natural resources, the ores and metal indicator also provides a foundational understanding of trade openness within the recipient country, capturing the influence of factors related to economic interdependence in line with more commercially oriented flow types. As such, both are included to capture various dimensionalities of resource availability. Indeed, an additional indicator seemed appropriate given the mixed results in existing literature concerning the most commonly used 'Ores and Metal Exports' indicator (Sauer et al., 2022).

In the recipient merit category, covariates assess recipient countries' internal governance and political landscape. Not only is China's claim of political non-interference often questioned by the West, but these variables are also theorized to have a potentially cascading effect on the efficacy of other objectives from economic to developmental, thus lending utility to empirically scrutinizing its truths. The first proxy is the democracy variable constructed from Version 4 of the 'Democracy Matrix' project 'Classification Core' produced by the Julius-Maximilians Universität Würzburg (2021), converted to a discrete scale from +1 (hard autocracy) to +5 (full democracy). In line with extant literature (Dreher et al., 2018; Sauer et al., 2022), additional governance covariates are indexes obtained from the WB Worldwide Governance Indicators (The World Bank, 2024). Both 'Control of Corruption' and 'Political Stability and Absence of Violence/Terrorism' are measured on a continuous scale from -2.5 (high corruption; high instability) to +2.5 (low corruption; high stability).[7] All merit-based covariates are perceptive-based summarizations of informed expert opinions and various datasets (Kaufmann et al., 2010), which may be a limitation as it presents a necessary degree of arbitrariness. However, the absence of a suitable alternative seemed to justify the selection (Sauer et al., 2022).

Meanwhile, the recipient need category focuses on potential aid recipients' economic and developmental

[4] One prominent example is São Tomé and Príncipe, which was able to resume its diplomatic relationship with the PRC and get its aid requests approved only after it cut ties with Taiwan in 2016.

[5] To illustrate, consider two countries: one with high overall merchandise exports and a diversified economy and another with lower mineral exports but a higher proportion of ores and metals exports. The second country has the greater relative percentage of ores and metals exports, while the first country has the greater absolute value.

[6] We exclude Rhenium, precious metal, and natural gases, which are categorized separately or in other metrics by the WMD.

[7] Somalia, due to its high political instability, exceeds this metric. See Kaufmann et al. (2010) or the WB-WGI Database.

© 2024 Global Journals

state. 'Central Government Debt' as a percentage of GDP is the first indicator within this section, operationalized by the International Monetary Fund's (International Monetary Fund, 2022) Global Debt Database; a higher level of debt could signal a less conducive commercial environment but a greater necessity for developmental aid (Dreher et al., 2018; Hoeffler & Sterck, 2022). 'GDP per Capita' (GDPC) is extracted from the previous WB-WDI database and is expressed in Constant 2021 USD, serving a similar purpose as the previous indebtedness proxy: a measurement of overall financial and socioeconomic conditions. The question of whether to use GDPC or absolute GDP is often debated; the former fails to account for distributional issues and is, at best, representative of the absorptive capacity of aid (Amusa et al., 2016; Sauer et al., 2022), while the latter biases against smaller countries. As GDPC is the more established of the two variables in extant literature (Amusa et al., 2016; Dreher et al., 2018; Zhao et al., 2018; Sauer et al., 2022; Hoeffler & Sterck, 2022), we chose to include it in the main specification. Finally, to control for the recipient country size, we also include the WB-WDI measurement of 'Total Population;' it follows intuitively that more populous countries necessitate greater amounts of aid intervention due to distributional effects (Neumayer, 2010; Amusa et al., 2016). Apart from recipient need, these covariates also capture the expected 'price' the PRC would need to pay to leverage foreign policy compliance from its partner country; smaller, poorer nations are more likely to sway to the monetary allurements of the Chinese largesse than richer and bigger states (Dreher et al., 2018).

V. Empirical Strategy

The main specification model considers how interest, merit, and need influence Chinese developmental finance allocation in Sub-Saharan Africa. We begin with a basic cross-sectional time series regression model denoted as:

$$aid_{i,t} = \beta_1 interest_{i,t} + \beta_2 merit_{i,t-1} + \beta_3 need_{i,t-1} + \tau_t + \varepsilon_{i,t} \quad (1)$$

Where $aid_{i,t}$ the dependent variable for country i at year t, categorized as total aid, 'ODA-like,' or 'OOF-like;' $interest_{i,t}$ is a vector of a set of 4 variables indicative of political alignment and resource availability; $merit_{i,t-1}$ is a vector of a set of 3 variables that evaluate governance and institutional quality; $need_{i,t-1}$ is a vector of a set of 3 variables to operationalize the overall size, economic development, and fiscal health of the recipient.

a) Sequentiality of Aid

A central question in modeling the PRC's developmental finance allocation patterns is whether aid distribution follows a two-part process — first assessing the recipient country's eligibility and then determining the absolute quantum of aid given — or an integrated, single-step evaluation that considers all factors simultaneously. From a broad theoretical standpoint, Dudley and Montmarquette (1976) proposed that aid is a distinct 'yes/no' (eligibility) and 'if yes, how much' (amount) sequential process. This has led to the increasing popularity of dual-part Logitstic (Logit)-OLS structures in recent literature (Dolan & McDade, 2020; Sauer et al., 2022), wherein the binary outcome is first evaluated using a Logit model and then an OLS regression is applied to only the subset of positive aid amounts, thus formulated as a mixture of a binomial distribution and strictly positive distribution. However, consensus on the use of such two-part models is not universal (Guillon & Mathonatt, 2020; Hoffler & Sterk, 2022). Initially, the PRC's ODA-like commitments are earmarked by its decentralized nature, as seen in sectors such as health aid, where multiple governmental — including the State Council and MOFCOM — and subnational bodies influence the decision-making process (Lancaster, 2007), resulting in varying resource allocation and assistance quality (Lin et al., 2016). Further, differing provincial capacities and interests have resulted in an apparent *ad-hoc*, 'request-based' reactive approach, making the previously described sequentiality unlikely (Lancaster, 2007; Huang, 2014; Lin et al., 2016; Guillon & Mathonatt, 2019; Guillon & Mathonatt, 2020).

b) Zero Inflation

In the domain of econometric aid literature, Ordinary Least Squares is frequently the estimation methodology de rigueur. Adopting a similar technique, however, is unsuitable due to a discontinuous country-level dataset with a large quantum of (derived) zero values, indicating that only some states receive aid programs while others do not, and thus, the dependent variable exhibits skewed distribution with positive probability mass at zero.[8] Such presents added complexity by violating homoscedasticity and linearity assumptions; OLS in this context often leads to underestimated parameter coefficients by providing a regression line that is too flat. Further, attempting to logarithmically transform the dependent variable for interpretive elasticity purposes introduces added complexity due to the indeterminacy of zero-value functions. *Ad-hoc* fixes, for example, assigning log-scale equivalents to zero instances, lead to the emergence of outliers at arbitrarily defined points along the outcome continuum. The further strategy of excluding zero values from the analysis, as proposed by some, inadvertently introduces non-random sample selection bias by modeling only non-zero outcomes (Hurd, 1979). We thus pivot to other specifications that can more

[8] Zero distribution in ODA-like aid at 27.3%, OOF-like aid at 66.1% and total aid at 25.1%.

© 2024 Global Journals

accurately model the associated overrepresentation of zeroes.

Alternative econometric models include the Heckman, Tobit, and the aforementioned two-part model. The Heckman Selection initially estimates the inverse mill's ratio (IMR) — the weighting mechanism for the probability of sample inclusion — via a binary probit model to adjust for latent selection biases (which could contribute to the excess number of zeroes) and unobserved heterogeneity in the latter continuous outcome model while assuming intercorrelated error structures. However, it is difficult to empirically justify the existence of a restriction variable[9] for the Heckman Model that would affect only the selection and not the allocation process (Guillon & Mathonnat, 2019; Sauer et al., 2022) By estimating the pair of equations with the same set (or subset) of explanatory covariates, the correction identification rests solely on the nonlinearity of the IMR, which Kennedy (2003) argues leads to a poor-performing model. A further technique is the Tobit estimator, which models aid distribution amounts in a single analytical step while correcting for the downward bias introduced by the zero-inflated data structure (McGillivray & White, 1993; Alesina & Dollar, 2000). Despite its apparent appeal, the Tobit model is predicated on assumptions of homoscedastic residuals and the subsequent zero inflation resulting exclusively from censoring,[10] making it less flexible (Guillon & Mathonnat, 2019).

In the presence of such constraints, we instead choose to employ a Poisson Pseudo-Maximum Likelihood estimator as our main specification. Principally, Silva and Tenreyro (2006 & 2011) have shown that Poisson regression outperforms Tobit or OLS in the context of our particular data specifications; the method is robust to differing patterns of heteroscedasticity while remaining unaffected by zero-skewed or overdispersion. While initially designed for discrete positive count data, Poisson models have recently gained popularity in estimating gravity models and are now considered the “natural” way of dealing with zero inflation in trade or investment data. (Shepherd, 2010; Anderson & Yotov, 2016; Fernandes, Freund, & Pierola, 2016; Luo, Qi, & Hubbard, 2017; Didier, 2018). Given the similar econometric issues faced with modeling Chinese aid flows, Acht et al. (2015), Guillon and Mathonnat (2019; 2020), and Yushi et al. (2020) have demonstrated the utility of using PPML models in this regard.

Formally, the PPML estimator is grounded in the Poisson distribution model, formally expressed (without the time series indication) as:

$$E[Y_i|X_i] = exp\,(\beta X_i^{'}) \tag{2}$$

Where the expected value of Y_i conditioned on X_i is modeled as the exponentiation of the transposed linear predictor $\beta X_i^{'}$, ensuring that the predicted value or conditional mean is non-negative (as aid amounts are always strictly ≥ 0). The log-likelihood function is denoted as:

$$L(\beta|Y,\,X) = \prod_{i=1}^{n} \frac{exp(-u_i)(u_i)^{Y_i}}{Y_i!} \tag{3}$$

Where each term in the product (for each observation i in the likelihood function $L(\beta|Y,\,X)$ represents the probability of observing the actual Y_i given the predicted mean $u_i = exp\,(\beta X_i)$ By multiplying these together for all observations n, we get a joint likelihood $\prod_{i=1}^{n} \frac{exp(-u_i)(u_i)^{Y_i}}{Y_i!}$ for the entire dataset, which the PPML method seeks to maximize in iterations to find the best-fitting parameters β. While the factorial term $Y_i\,!$ is a mathematical convention from the Poisson distribution, the PPML estimator remains robust when discrete count data due to its reliance on the likelihood function rather than the conventional Poisson equidistributional form; all that is required for consistent estimation of parameters is the correct specification of the conditional mean (Silva & Tenreyro, 2006). The further absence of log-linearization inherently permits the inclusion of zero-valued observations in the analysis.[11] Thus, it is the main specification of choice to model the absolute amount of zero-inflated aid flows.

c) Fixed Effects

We include year-fixed effects to control for temporal unobserved heterogeneity (year-to-year externality influences on the elasticity of Chinese funds) but exclude fixed country effects; the latter relies solely on temporal intra-country heterogeneity to estimate regression coefficients. Per Dreher et al. (2018), we do not expect our explanatory covariates to hold much explanatory power in explaining temporal within-country changes in aid distribution; rather, we retain the between-country variation. Further, many of the regressors, notably the index-based variables in relation to democracy or Taiwan recognition, are time-invariant or exhibit minimal changes. Thus, including country-fixed effects in this instance would create issues related to multicollinearity.

d) Time Lag

The question of whether to estimate regression models with time-lagged or contemporary variables

[9] This is perhaps with the exception of the Taiwan Recognition Dummy, which is minimalistic at best. See Guillon & Mathonatt (2019) on modeling Heckman Selection equations using the Taiwan dummy as the exclusion variable for ODA-like flows.

[10] Even when censoring is present, it is assumed to be minimally random and likely attributed to faulty collection, which is inevitable as the granular dataset is derived from unofficial sources (See Section 4.1).

[11] However, the log-link function still allows for the proportional interpretation of coefficients in the context of a multiplicative model.

© 2024 Global Journals

remains largely ad hoc and arbitrary (Hoeffler & Sterck, 2022). Laging regressors largely serve two purposes: to reflect that changes in material conditions may take time to register in the PRC's decision-making process and to mitigate reverse causality concerns. A practical question regarding the former is the temporal extent to which these changes occur (i.e., how many time-lagged years). Reverse causality, meanwhile, is plausible in our model as developmental finance is often theorized to exert a direct or external effect on aspects such as governance, debt levels, and GDP per capita (Mcgillivray, 2004; Noroud, 2014; Dijkstra, 2018;). The common consensus within the aid allocation literature has been to temporally lag all independent variables by one year to mitigate the aforementioned reservations (Dreher & Fuchs, 2015; Dreher et al., 2018; Zhao et al., 2018; Dollar, 2018; Landry, 2018; Guillon & Mathonatt, 2020; Sauer et al., 2022; Hoeffler & Sterck, 2022).

However, issues of simultaneity are likely to differ from variable to variable; certain shifts within the recipient country — such as voting patterns in the UN — may generate immediate reactionary rewards from donor countries (or are even caused directly by the promise of assistance as a means of leveraging compliance), while other changes — such as governance alterations or economic shifts — may take longer to affect financial flows as they are usually smaller and incremental, thus being harder to observe immediately (Hoeffler & Sterck, 2022). Quantitatively, Hoffler and Sterk (2022), in decomposing the ceteris paribus variance of Y given X, reported that the Taiwan dummy variable generated a 3% greater variation in aid amounts allocated within the regression model when its value was contemporary instead of time-lagged. Further, Reed (2015), Bellemare et al. (2017), and Leszczensky and Wolbring (2019) have recently criticized the practice of using time lag to address reverse causality. Coupled with the theoretical justification that foreign aid is necessarily designed to leverage political or economic changes within the recipient country to cater to the interests of the donor country (Dreher et al., 2018), we thus deviate from the conventional practice and instead chose to only time lag covariates related to need and merit, while retaining contemporary values for variables concerning self-interest, which are likely to coincide or shift as a direct result of the distribution of developmental finance by the Chinese (Section 3). Indeed, it also follows intuitively that the PRC's consideration of the merit and needs of the recipient country would look to formulate such through a "judgment of long-term historical trends" (Zhu, 2010; Onur, 2018). Nonetheless, we recognize that this choice remains largely arbitrary; however, it appears appropriate given the apparent lack of clarity and consensus regarding the Chinese decision-making or negotiation process and credible regression modeling in this regard.

e) Multicollinearity

Multicollinearity arises when two or more predictor variables in a regression model exhibit high linear intercorrelations, leading to inflated standard errors and compromised coefficient estimates. Predictor variables are below the literature consensus for coefficient cutoffs ($r < 0.6$), meaning multicollinearity is not an issue in this model (Dormann et al., 2012; Vatcheva et al., 2016).

Table 3: Collinearity Matrix of Main Specification Regressors

	UNGA Voting	Taiwan	Ores~ Exports	Mineral Prod~n	Demo~ y	Corr~n Control	Political Stability	Debt to GDP	GDP~ Capita	Popul~n
UN~ing	1.000									
Taiwan	-0.147	1.000								
Ores~orts	0.130	-0.21	1.000							
Mineral~n	-0.025	-0.214	0.645	1.000						
Democracy	0.143	0.137	0.052	0.104	1.000					
Corrupt~l	-0.025	0.077	-0.089	-0.083	0.503	1.000				
Politica~ity	-0.080	0.066	0.022	0.035	0.469	0.684	1.000			
Debt~GDP	0.093	-0.035	-0.233	-0.158	-0.163	-0.101	-0.010	1.000		
GDP ~pita	-0.011	-0.194	0.212	0.575	0.28	0.41	0.404	-0.197	1.000	
Population	-0.001	0.053	0.418	0.255	0.024	-0.452	-0.463	-0.150	-0.232	1.000

Estimations rounded at 3d.p.; Ores and Metal Exports, Mineral Production, GDP per Capita, and Population are calculated using logged amounts (See Section 4.2); authors' calculations (Stata SE 18.0)

© 2024 Global Journals

VI. Results

The following section presents and discusses the result. Table 4 analyzes the distribution of Chinese developmental finance in Sub-Saharan Africa. Column 1 seeks to explain the total cross-country allocation of funds, while Columns 2 and 3 decompose the dependent variable into flow types of relative concessionality. Before delving into specific interpretations, our results largely confirm the divergent political, economic, and developmental motivations between Chinese ODA and OOF outlined in Sections 2 and 3. Further, due to the greater aggregate value of OOF-like projects compared to ODA-like contracts, the results from Column 1 largely mimic that of OOF in isolation. As such, there appears to be greater utility in analyzing individual rather than aggregate financial flows.

The PPML estimator's log link function allows us to observe the responsiveness of aid amounts allocated to changes in the recipient country's conditions. In the context of a continuous logged independent variable $\ln(X_i)$, the interpretation of the coefficient β is simply elasticity (the percentage change of Y_i given the percentage change in X_i) (Disdier & Head, 2008). When X_i is an indicator variable, exponentiating the coefficient β yields the Incidence Rate Ratio (IRR): a multiplicative interpretative relationship (indicating positive association if > 1, no association if $= 1$, and negative association if < 1). The adjustment:

$$(e^{\beta} - 1) \times 100\% \quad (4)$$

Translates the effect of X_i into an absolute positive or negative percentage change for semi-elasticity purposes (Yotov et al., 2016).

Table 4: Allocation of Chinese Developmental Finance, Sub-Saharan Africa, Value, 2000–2021, PPML

		Total	ODA-like	OOF-like/Vague
		(1)	(2)	(3)
Donor Interest	UNGA Voting	-0.259	0.385	-0.293
		(0.630)	(0.622)	(0.786)
	Taiwan	-1.915**	-2.402***	-1.834*
		(0.762)	(0.926)	(1.074)
	Ores and Metals (log)	0.102**	-0.0323	0.176***
		(0.047)	(0.059)	(0.058)
	Mineral Production (log)	0.003	0.027	0.014
		(0.042)	(0.045)	(0.062)
Recipient Merit	Democracy (lag)	-0.456***	-0.102	-0.524***
		(0.110)	(0.106)	(0.133)
	Corruption Control (lag)	-0.760***	-0.026	-1.015***
		(0.171)	(0.209)	(0.206)
	Political Stability (lag)	0.808***	0.369***	0.934***
		(0.163)	(0.141)	(0.212)

© 2024 Global Journals

Recipient Need	Debt to GDP (lag)	0.000	0.007***	-0.008
		(0.005)	(0.003)	(0.007)
	GDP per Capita (log, lag)	0.707***	0.205	0.725***
		(0.165)	(0.173)	(0.224)
	Population (log, lag)	0.801***	0.448***	0.861***
		(0.104)	(0.102)	(2.423)
Number of Observations		542	542	542
Pseudo R^2		0.65	0.29	0.67

*Raw coefficients; robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1; estimations rounded to 3d.p.; Pseudo R^2rounded to 2d.p; authors' calculations (Stata SE 18.0).*

a) Donor Interest

Principally, the PRC's own interests are empirically recognized to influence the PRC's developmental finance distribution. Taiwan's recognition by the recipient country is universally associated with decreases in both ODA-like and OOF-like commitments, though with differing degrees of substantiality. Qualitatively, using the adjustment explained in Equation (3), the model indicates a 91% reduction in ODA-like funding (p=0.009), a stark indication of China's strategic limitation of concessional finance to leverage foreign diplomatic concessions. The same geopolitical consideration appears to have a less pronounced effect in the context of OOF. While still indicative of a negative trend, the influence of Taiwan's recognition of OOF-like finance is less statistically significant (p=0.088) with an associated reduced coefficient value, confirming a more nuanced approach where economic considerations conjoin or take precedence over political motivations. These estimations are largely in line with existing literature (Dreher & Fuchs, 2015; Dreher et al., 2018; Guillon & Mathonatt, 2020; Hoeffler & Sterck, 2022), all of which confirm Taiwan's recognition as a significant predictor of developmental finance distribution. Surprisingly, voting alignment with the PRC in UNGA negatively correlates with aggregate and OOF-like funds, although the model for all three flow types is not statistically significant. These results can perhaps be attributed to the excess temporal 'noise' documented in UNGA ideal point estimates due to year-to-year changes in the assembly's voting agenda,[12] which could be considered a data-centric limitation of our study (Bailey et al., 2016).

Turning to the considerations of resource availability, our results further confirm the divergent strategic interests between allocating flow types. The presence of ores and metals exports significantly impacts OOF, qualitatively indicating a 1.7% increase in the value of projects allocated (p=0.002) for every 10% increase in these resources exported by the recipient country. Interestingly, the absolute natural mineral production amount, although positively correlated with OOF, was not statistically significant (p=0.816), confirming the earlier hypothesis that only export-oriented resource commodities are of any interest to the Chinese in the allocation process as it is materially accessible. As expected, no statistically significant relationship exists for ODA flows for either of the two regressors.

b) Recipient Merit

In relation to recipient merit, our model alludes to several interesting conclusions. Universally, political stability exhibits a positive and statistically significant effect on aggregate and individual flow-type commitments. However, the coefficient value for the OOF model is more than double that of the ODA model. This difference can likely be attributed to their divergent objectives; while the foreign policy considerations of ODA-like contracts can be achieved in the allocation process itself (buying political favors through offers of concessional finance), the economic motivations driving OOF-like commitments require 'successful' completion of the project to come to fruition, thereby placing a greater emphasis on the overall societal stability within

[12] As noted in the conclusion of Bailey et al. (2016), while "votes in the UNGA contain valuable information about the preferences of states…such scores can move dramatically due to changes in agenda even when the underlying preferences do not change. They produce estimates that in some cases beggar belief, implying, for example, that the United States and Russia today are more at odds than the United States and Soviet Union ever were."

© 2024 Global Journals

the recipient country to avoid potential jeopardization to the Chinese investment. Nonetheless, China still displays a substantial degree of care for the effects of its ODA programs. Surprisingly, the preference for certain governance and institutional structures is more closely associated with Chinese OOF than ODA-like commitments. While the principles of political noninterference remain true for ODA, China clearly favors more corrupt and authoritarian regimes in its commercial lending, as both democracy rankings and corruption control index scores are statistically significant and negatively associated with OOF-like project values. However, such motivations may not be necessarily political. For instance, resource wealth — a significant positive predictor of OOF — is often theoretically and empirically correlated with authoritarianism by centralizing economic power to a singular point of control and dissuading the provision of social services by providing a labor-independent economy (Wantchekon, 2002; Haber & Menaldo, 2011). Further, the PRC's aid and loan practices — by employing financial modalities such as commodity and revenue collateralization or subcontracting work to Chinese personnel operating abroad — reduce the risk of financial misappropriation and allow Beijing to retain greater project oversight, potentially better positioning China to transact with poorly governed nations compared to its Western counterparts (Bräutigam, 2011b; Yarbrough & Yarbrough, 2014; Dreher et al., 2018). Corruption has also been noted in recent literature to 'grease the wheels' of commerce, promoting more profit-oriented financial relationships between the PRC and its partner countries, which is particularly pertinent given the state of China's own corruption-ridden transitional economy (Dutt & Traca, 2010; Chan et al., 2019). Indeed, the notion that only OOF flows to more poorly governed countries is supported by pre-existing empirical research (Dreher et al., 2018).

c) Recipient Need

In analyzing recipient needs, our results unilaterally support the notion that larger states receive greater amounts of Chinese developmental finance. More populous countries also hold greater significance in the international political and economic arena, potentially acting as an amplifier for all other regressors. Turning to economic indicators, our results confirm GDP per capita — a signifier of overall financial conditions — as a significant positive predictor of OOF: every 10% increase in the covariate is associated with a 7.2% increase in OOF ($p=0.001$). These results were not significant for ODA. Conversely, 'Debt to GDP' was positively associated with ODA ($p = 0.005$) but not OOF, indicating that more indebted countries received greater amounts of concessional assistance. In other words, these results further confirm the divergent financial considerations between the two flow types; while OOF contracts are generally granted to comparably more prosperous countries to reap further social and economic gains, concessional ODA programs specifically target financially restricted nations for more altruistic and developmental purposes. However, it is important to note that the results for indebtedness, while statistically significant, are not economically significant due to the reduced coefficient value of only 0.007.

VII. Conclusion

Chinese 'aid,' since its inception, has engendered criticism. Despite recent advancement in modeling the PRC's official finance flows, enduring conceptual, methodological, and data-centric challenges have hindered empirical efforts to definitively ascertain the motives — whether altruistic or otherwise — behind Chinese capital allocations. This paper, by refining and integrating existing practices and employing an updated granular dataset, attempts to better illustrate a more nuanced answer to that question. We conduct regression analysis on a dataset of 48 countries spanning 22 years. Principally, we acknowledge the utility of decomposing aggregate developmental finance into various flow types to allow for the examination of the various developmental, political, and economic factors influencing Chinese decision-making, in addition to utilizing a PPML estimator to address issues of zero-inflation and heteroscedasticity in the data. Further, we retain contemporary 'interest' variables to capture the potential simultaneity associated with providing developmental finance and acquiring policy concessions.

Our findings challenge the prevailing 'rogue donor' narrative in several respects. Universally, it is observed that political stability and the population of the recipient country are associated with increased levels of developmental finance. Regarding concessional foreign aid, we find limited evidence to support the view of China as a donor-driven primarily by political motivations. While political considerations, such as the non-recognition of Taiwan, do play a role, developmental objectives appear to be the primary determinant in allocating ODA. Indicators of recipient need, such as lower GDP per capita, significantly influence aid distribution, suggesting either a genuine consideration of the recipient nation's poorer status or a strategic targeting of more susceptible governments. Moreover, our analysis indicates that Chinese concessional finance does not disproportionately flow towards corrupt or authoritarian regimes; rather, its *commercial* lending practices tend to favor resource-rich and poorly governed nations primarily for short-term economic benefits, a form of capital that may often be incorrectly conflated with 'aid' in the traditional form. More broadly, we conclude that while developmental

© 2024 Global Journals

objectives predominantly drive ODA-like allocations, economic interests underpin OOF-like flow — while political considerations inadvertently influence both — thus reflecting the intricate political economy of the Chinese state. These results largely confirm the previous pioneering works of Dreher et al. (2018), Guillon & Mathonatt (2020), and Hoffler & Sterk (2022), though to varying degrees.

As the landscape of international economic developmental finance transitions from the prevailing Western-centric paradigm to a more diverse array of unconventional and emerging donors prioritizing non-interference and South-South cooperation, Beijing will undoubtedly play a pivotal role in shaping such institutional norms and practices. There is substantial evidence to suggest that these structural changes will profoundly affect the political, social, and economic outcomes in developing countries and may even alter the foundations of the international order (Woods, 2008; Kersting & Kilby, 2014). As nations break away from the conventional DAC-OECD regime, rhetorical debate and policymaking must place a greater emphasis on qualitative, empirical scrutiny over political pandering and emotional knee-jerk reactions that often arise from unfamiliarity. This paper describes some conceptual and methodological practices that represent one step forward on that front.

Acknowledgment

This paper was inspired by and its development indebted to Professor Joseph Pelzman from George Washington University's Elliot School of International Affairs. We are also grateful for the insightful comments, feedback, and emotional support offered to us in the editing process by our subject teachers, Mr. Jason Sannegadu and Mr. David Farrell, as well as by our peers, Fredrick Bate, Amrit Bhogal, and Johnson Wu. Finally, we would like to thank Christian Reichl from the Austrian Ministry of Finance for making the earlier versions of the World Mining Database publicly available to us.

Bibliography

1. Acht, M., Mahmoud, T. O., & Thiele, R. (2015). Corrupt governments do not receive more state-to-state aid: Governance and the delivery of foreign aid through non-state actors. Journal of Development Economics, 114, 20–33. https://doi.org/10.1016/j.jdeveco.2014.11.005
2. Alesina, & Dollar. (2000, March). Who Gives Foreign Aid to Whom and Why? Journal of Economic Growth, 5(1), 33–63. https://www.jstor.org/stable/40216022
3. Amusa, Monkam, & Viegi. (2016, April). The Political and Economic Dynamics of Foreign Aid: A Case Study of United States and Chinese Aid to Sub-Sahara Africa. University of Pretoria Department of Economics Working Paper Series. In press. https://www.up.ac.za/media/shared/61/WP/wp_2016_28.zp84738.pdf
4. Anderson, J. E., & Yotov, Y. V. (2016). Terms of trade and global efficiency effects of free trade agreements, 1990–2002. Journal of International Economics, 99(1), 279–298. https://doi.org/10.1016/j.jinteco.2015.10.006
5. Aulia. (2021). Responsible Power and China's International Assistance in South Sudan. Intermestic: Journal of International Studies, 6(1).
6. Ayuso, & Hoffmann. (2019, October). Where are the trillions for the 2030 Agenda ? CIDOB.
7. Bailey, M. A., Strezhnev, A., & Voeten, E. (2016). Estimating Dynamic State Preferences from United Nations Voting Data. Journal of Conflict Resolution, 61(2), 430–456. https://doi.org/10.1177/0022002715595700
8. Bellemare, M. F., Masaki, T., & Pepinsky, T. B. (2017). Lagged Explanatory Variables and the Estimation of Causal Effect. The Journal of Politics, 79(3), 949–963. https://doi.org/10.1086/690946
9. Berthélemy, J. (2006, April 21). Bilateral Donors' Interest vs. Recipients' Development Motives in Aid Allocation: Do All Donors Behave the Same? Review of Development Economics, 10(2), 179–194. https://doi.org/10.1111/j.1467-9361.2006.00311.x
10. Biglaiser, G., & McGauvran, R. J. (2022, June 7). The effects of IMF loan conditions on poverty in the developing world. Journal of International Relations and Development, 25(3), 806–833. https://doi.org/10.1057/s41268-022-00263-1
11. Bräutigam, D. (2011a, July). Aid 'With Chinese Characteristics': Chinese Foreign Aid and Development Finance Meet the OECD-DAC Aid Regime. Journal of International Development, 23(5), 752–764. https://doi.org/10.1002/jid.1798
12. Bräutigam, D. (2011b, November 1). Testimony on China's Growing Role in Africa before the United States Senate Committee on Foreign Relations Subcommittee on African Affairs. https://www.foreign.senate.gov/imo/media/doc/Deborah_Brautigam_Testimony.pdf
13. Bräutigam, D., & Gallagher, K. P. (2014, June 30). Bartering Globalization: China's Commodity-backed Finance in Africa and Latin America. Global Policy, 5(3), 346–352. https://doi.org/10.1111/1758-5899.12138
14. Bush. (2017, March). A One-China policy primer. In Brookings. Brookings. Retrieved March 31, 2024, from https://www.brookings.edu/articles/a-one-china-policy-primer/
15. Cable, & Ferdinand. (1994, April). China As an Economic Giant: Threat or Opportunity? International Affairs, 70. https://doi.org/10.2307/2625233

© 2024 Global Journals

16. Chan, K. S., Dang, V. Q. T., & Li, T. (2019). The evolution of corruption and development in transitional economies: Evidence from China. Economic Modelling, 83, 346–363. https://doi.org/10.1016/j.econmod.2019.09.001
17. Chen, C., & Orr, R. J. (2009, November). Chinese Contractors in Africa: Home Government Support, Coordination Mechanisms, and Market Entry Strategies. Journal of Construction Engineering and Management, 135(11), 1201–1210. https://doi.org/10.1061/(asce)co.1943-7862.0000082
18. Chen, M. (2020, August 8). Beyond Donation: China's Policy Banks and the Reshaping of Development Finance. Studies in Comparative International Development, 55(4), 436–459. https://doi.org/10.1007/s12116-020-09310-9
19. China International Development Cooperation Agency. (2021, August). 国家国□□展合作署 外交部 商□部 令 （二〇二一 年第1号）《□外援助管理□法》-国家国□□展合作署 Retrieved March 31, 2024, from http://www.cidca.gov.cn/2021-08/31/c_1211351312.htm
20. Chow. (2016, November). Why China Established the Asia Infrastructure Investment Bank. Vanderbilt Journal of Transactional Law, 49(5). https://scholarship.law.vanderbilt.edu/cgi/viewcontent.cgi?article=1180&context=vjtl
21. Corkin, L. (2011, December). Redefining Foreign Policy Impulses toward Africa: The Roles of the MFA, the MOFCOM and China Exim Bank. Journal of Current Chinese Affairs, 40(4), 61–90. https://doi.org/10.1177/186810261104000403
22. Custer, S., Dreher, A., Elston, T. B., Escobar, B., Fedorochko, R., Fuchs, A., Ghose, S., Lin, J., Malik, A., Parks, B. C., Solomon, K., Strange, A., Tierney, M. J., Vlasto, L., Walsh, K., Wang, F., Zaleski, L., & Zhang, S. (2023). Tracking Chinese development finance: An application of AidData's TUFF 3.0 methodology. Williamsburg, VA: AidData at William & Mary.
23. Daoud, A., Herlitz, A., & Subramanian, S. (2022, September). IMF fairness: Calibrating the policies of the International Monetary Fund based on distributive justice. World Development, 157, 105924. https://doi.org/10.1016/j.worlddev.2022.105924
24. Didier, L. (2018). Economic diplomacy: The "one–China policy" effect on trade. China Economic Review, 48, 223–243. https://doi.org/10.1016/j.chieco.2016.11.003
25. Dijkstra, G. (2018). Aid and good governance: Examining aggregate unintended effects of aid. Evaluation and Program Planning, 68, 225–232. https://doi.org/10.1016/j.evalprogplan.2017.09.004
26. Disdier, A.-C., & Head, K. (2008). The Puzzling Persistence of the Distance Effect on Bilateral Trade. The Review of Economics and Statistics, 90(1), 37–48. https://www.jstor.org/stable/40043123
27. Dolan, C. B., & McDade, K. K. (2020). Pulling the purse strings: Are there sectoral differences in political preferencing of Chinese aid to Africa? PLOS ONE, 15(4), e0232126. https://doi.org/10.1371/journal.pone.0232126
28. Dollar, D. (2018). Is China's Development Finance a Challenge to the International Order? Asian Economic Policy Review, 13(2), 283–298. https://doi.org/10.1111/aepr.12229
29. Dormann, C. F., Elith, J., Bacher, S., Buchmann, C., Carl, G., Carré, G., Marquéz, J. R. G., Gruber, B., Lafourcade, B., Leitão, P. J., Münkemüller, T., McClean, C., Osborne, P. E., Reineking, B., Schröder, B., Skidmore, A. K., Zurell, D., & Lautenbach, S. (2012). Collinearity: a review of methods to deal with it and a simulation study evaluating their performance. Ecography, 36(1), 27–46. https://doi.org/10.1111/j.1600-0587.2012.07348.x
30. Dreher, A., & Fuchs, A. (2015, August). Rogue aid? An empirical analysis of China's aid allocation. Canadian Journal of Economics/Revue Canadienne D'économique, 48(3), 988–1023. https://doi.org/10.1111/caje.12166
31. Dreher, Fuchs, Parks, Strange, & Tierney. (2018, March). Apples and Dragon Fruits: The Determinants of Aid and Other Forms of State Financing from China to Africa. International Studies Quarterly, 62(1), 182–194. https://doi.org/10.1093/isq/sqx052
32. Dudley, L., & Montmarquette, C. (1976). A Model of the Supply of Bilateral Foreign Aid. The American Economic Review, 66(1), 132–142. https://www.jstor.org/stable/1804951
33. Dutt, P., & Traca, D. (2010). Corruption and Bilateral Trade Flows: Extortion or Evasion? Review of Economics and Statistics, 92(4), 843–860. https://doi.org/10.1162/rest_a_00034
34. Evrensel. (2004, September). Lending to developing countries revisited: changing nature of lenders and payment problems. Economic Systems, 28(3), 235–256. https://doi.org/10.1016/j.ecosys.2004.08.001
35. Fernandes, A. M., Freund, C., & Pierola, M. D. (2016). Exporter behavior, country size and stage of development: Evidence from the exporter dynamics database. Journal of Development Economics, 119, 121–137. https://doi.org/10.1016/j.jdeveco.2015.10.007
36. Freitas. (2023, August). The Impact of Chinese Investments in Africa: Neocolonialism or Cooperation? In Policy Center for the New South. Policy Center for the New South. Retrieved March 31, 2024, from https://www.policycenter.ma/sites/default/files/2023-08/PB_30-23_Marcus%20Freitas.pdf

© 2024 Global Journals

37. Guillon, M., & Mathonnat, J. (2019). Is there a Strategy in China's Health Official Development Assistance to African Countries? Revue d'Économie Politique, 129(4), 619. https://doi.org/10.3917/redp.294.0619
38. Guillon, M., & Mathonnat, J. (2020, April). What can we learn on Chinese aid allocation motivations from available data? A sectorial analysis of Chinese aid to African countries. China Economic Review, 60, 101265. https://doi.org/10.1016/j.chieco.2019.01.004
39. HABER, S., & MENALDO, V. (2011). Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse. The American Political Science Review, 105(1), 1–26. https://www.jstor.org/stable/41480824
40. Hoeffler, A., & Outram, V. (2011, April 12). Need, Merit, or Self-Interest—What Determines the Allocation of Aid? Review of Development Economics, 15(2), 237–250. https://doi.org/10.1111/j.1467-9361.2011.00605.x
41. Hoeffler, A., & Sterck, O. (2022, August). Is Chinese aid different? World Development, 156, 105908. https://doi.org/10.1016/j.worlddev.2022.105908
42. Horn, Parks, Reinhart, & Trebesch. (2023, March). China as an International Lender of Last Resort. In World Bank. Office of the Chief Economist and Senior Vice President.
43. Huang, Y. (2014). Domestic Politics and China's Health Aid to Africa. China: An International Journal, 12(3), 176–198. https://muse.jhu.edu/article/563565
44. Hurd, M. D. (1979). Estimation in truncated samples when there is heteroscedasticity. Journal of Econometrics, 11(2-3), 247–258. https://doi.org/10.1016/0304-4076(79)90039-3
45. Hwang, Moses, Engel, & Shadbar. (2022, October). Chinese Loans to Africa During the COVID-19 Pandemic. Boston University Global Development Policy Center. Retrieved March 31, 2024, from https://www.bu.edu/gdp/files/2022/11/GCI_PB_012_EN_FIN.pdf
46. International Monetary Fund. (2022). Central Government Debt. Retrieved March 31, 2024, from https://www.imf.org/external/datamapper/CG_DEBT_GDP@GDD/SWE
47. Johnston, L., & Rudyak, M. (2017, July 20). China's 'Innovative and Pragmatic' Foreign Aid: Shaped by and now Shaping Globalisation. China's New Sources of Economic Growth: Vol. 2, 431–451. https://doi.org/10.22459/cnseg.07.2017.19
48. Kaplinsky, R., & Morris, M. (2009, August 25). Chinese FDI in Sub-Saharan Africa: Engaging with Large Dragons. The European Journal of Development Research, 21(4), 551–569. https://doi.org/10.1057/ejdr.2009.24
49. Kaufmann, Kraay, & Mastruzzi. (2010, September). The Worldwide Governance Indicators: Methodology and Analytical Issues. World Bank Policy Research Working Paper No. 5430. In press.
50. Kennedy, P. (2003). A Guide to Econometrics, 5th Edition. RePEc - Econpapers. https://econpapers.repec.org/bookchap/mtptitles/026261183x.htm
51. Kersting, E., & Kilby, C. (2014). Aid and democracy redux. European Economic Review, 67, 125–143. https://doi.org/10.1016/j.euroecorev.2014.01.016
52. Khan, M. Z. I. (2020, October). Is Voting Patterns at the United Nations General Assembly a Useful Way to Understand a Country's Policy Inclinations: Bangladesh's Voting Records at the United Nations General Assembly. SAGE Open, 10(4), 215824402096111. https://doi.org/10.1177/2158244020961117
53. Kironska. (2022, December). How Taiwan lost Africa. In Central European Institute of Asian Studies. CEIAS Insights. Retrieved March 31, 2024, from https://ceias.eu/how-taiwan-lost-africa/
54. Kobayashi. (2008, April). Evolution of China's Aid Policy. JBIC Institute. In press.
55. Kong, & Gallagher. (2016). The Globalization of Chinese Energy Companies: The Role of State Finance. In Boston University's Global Economic Governance Initiative. Boston University.
56. Kurlantzick. (2007, April). Charm Offensive: How China's Soft Power is Transforming the World. Yale University Press.
57. Lancaster, C. (2007, June 27). The Chinese Aid System. Center for Global Development | Ideas to Action. https://www.cgdev.org/publication/chinese-aid-system
58. Landry, D. G. (2018). Comparing the Determinants of Western and Chinese Development Finance Flows to Africa. Www.econstor.eu. https://www.econstor.eu/handle/10419/248149
59. Leszczensky, L., & Wolbring, T. (2019). How to Deal With Reverse Causality Using Panel Data? Recommendations for Researchers Based on a Simulation Study. Sociological Methods & Research, 51(2), 004912411988247. https://doi.org/10.1177/0049124119882473
60. Lin, S., Gao, L., Reyes, M., Cheng, F., Kaufman, J., & El-Sadr, W. M. (2016). China's health assistance to Africa: opportunism or altruism? Globalization and Health, 12(1). https://doi.org/10.1186/s12992-016-0217-1
61. Liqun, Z. (2010). China's Foreign Policy Debates. https://www.iss.europa.eu/sites/default/files/EUISSFiles/cp121-China_s_Foreign_Policy_Debates_0.pdf
62. Liu, W., & Dunford, M. (2016, September 28). Inclusive globalization: unpacking China's Belt and Road Initiative. Area Development and Policy, 1(3), 323–340. https://doi.org/10.1080/23792949.2016.1232598
63. Lui, K., & Chen, Y. (2021). The evolution of China's lending practices on the Belt and Road Emerging analysis. https://cdn-odi-production.s3.amazonaws.

© 2024 Global Journals

com/media/documents/The_evolution_of_Chinas_lending_practices_on_the_Belt_and_Road_ODI_template.pdf
64. Lum, Fischer, Gomez-Granger, & Leland. (2009, February). China's Foreign Aid Activities in Africa, Latin America, and Southeast Asia. In Congressional Research Service. Retrieved March 31, 2024, from https://sgp.fas.org/crs/row/R40361.pdf
65. Luo, L., Qi, Z., & Hubbard, P. (2017). Not looking for trouble: Understanding large-scale Chinese overseas investment by sector and ownership. China Economic Review, 46, 142–164. https://doi.org/10.1016/j.chieco.2017.08.006
66. Maizels, & Nissanke. (1984). Motivations for aid to developing countries. World Development, 12(9), 879–900. https://doi.org/10.1016/0305-750X(84)90046-9
67. Mcgillivray, M. (2004). Is Aid Effective? https://www.oecd.org/dev/34353462.pdf
68. McGillivray, M., & White, H. (1993). Explanatory studies of aid allocation among developing countries: a critical survey. ISS Working Papers - General Series. https://ideas.repec.org/p/ems/eurisss/18942.html
69. McKinlay, R. D., & Little, R. (1977, October). A Foreign Policy Model of U.S. Bilateral Aid Allocation. World Politics, 30(1), 58–86. https://doi.org/10.2307/2010075
70. Mohan, & Power. (2008, March). New African Choices? The Politics of Chinese Engagement. Review of African Political Economy, 35(115), 23–42. https://www.jstor.org/stable/20406475
71. Moravcsik, A. M. (1989). Disciplining trade finance: the OECD Export Credit Arrangement. International Organization, 43(1), 173–205. https://doi.org/10.1017/s0020818300004598
72. Naim. (2007, April). Rogue Aid . Retrieved March 31, 2024, from https://www.proquest.com/openview/59c217b3afc8ce6b7e0b51e790981043/1?pq-origsite=gscholar&cbl=47510
73. Neumayer, E. (2003, April). What Factors Determine the Allocation of Aid by Arab Countries and Multilateral Agencies? Journal of Development Studies, 39(4), 134–147. https://doi.org/10.1080/713869429
74. Niczyporuk, H., & Urpelainen, J. (2021, January). Taking a gamble: Chinese overseas energy finance and country risk. Journal of Cleaner Production, 281, 124993. https://doi.org/10.1016/j.jclepro.2020.124993
75. Nikolaidou, E., & Vogiazas, S. (2017, June). Credit risk determinants in Sub-Saharan banking systems: Evidence from five countries and lessons learnt from Central East and South East European countries. Review of Development Finance, 7(1), 52–63. https://doi.org/10.1016/j.rdf.2017.01.003
76. Nourou, M. (2014). FOREIGN AID AND DEVELOPMENT: LOOKING BEYOND THE GROWTH EFFECT. JOURNAL of ECONOMIC DEVELOPMENT, 39. https://jed.cau.ac.kr/archives/39-4/39-4-5.pdf
77. OECD. (2023a, June 16). Africa's sustainable development: how to mobilise an extra USD 194 billion per year to 2030 - OECD. Retrieved March 31, 2024, from https://t4.oecd.org/development/africa/development-dynamics/africa-sustainable-development-dynamics-2023.htm
78. OECD. (2023b). International Development Statistics (IDS) online databases. Retrieved March 31, 2024, from https://www.oecd.org/development/financing-sustainable-development/development-finance-data/idsonline.htm
79. OECD. (2023c). Development resource flows - Other official flows (OOF) - OECD Data. Retrieved March 31, 2024, from https://data.oecd.org/drf/other-official-flows-oof.htm
80. Packenham. (1966, May). Foreign Aid and the National Interest. Midwest Journal of Political Science, 10(2), 214–221. https://doi.org/10.2307/2109149
81. Pelzman, J. (2014, April 28). Spillover Effects of China Going Global. https://doi.org/10.1142/9171
82. Reed, W. R. (2015). On the Practice of Lagging Variables to Avoid Simultaneity. Oxford Bulletin of Economics and Statistics, 77(6), 897–905. https://doi.org/10.1111/obes.12088
83. Santos Silva, J., & Tenreyro, S. (2006). The Log of Gravity. Review of Economics and Statistics, 88(4), 641–658. https://doi.org/10.1162/rest.88.4.641
84. Santos Silva, J., & Tenreyro, S. (2011). Further simulation evidence on the performance of the Poisson pseudo-maximum likelihood estimator. Economics Letters, 112(2), 220–222. https://econpapers.repec.org/article/eeeecolet/v_3a112_3ay_3a2011_3ai_3a2_3ap_3a220-222.htm
85. Sauer, J. M., Anadón, L. D., Kirchherr, J., Plummer Braeckman, J., & Schulhof, V. (2022, June). Determinants of Chinese and Western-backed development finance in the global electricity sector. Joule, 6(6), 1230–1252. https://doi.org/10.1016/j.joule.2022.05.003
86. Sen, O. (2018). Strategic Aid: Explaining The Motives And Choices Of Strategic Aid: Explaining The Motives And Choices Of International Donors International Donors. https://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1054&context=political_science_diss
87. Shattuck, T. J. (2020). The Race to Zero?: China's Poaching of Taiwan's Diplomatic Allies. Orbis, 64(2), 334–352. https://doi.org/10.1016/j.orbis.2020.02.003
88. Shepherd, B. (2010). Geographical Diversification of Developing Country Exports. World Development,

© 2024 Global Journals

38(9), 1217–1228. https://doi.org/10.1016/j.worlddev.2010.02.005
89. Springer, Tang, Nedopil, Alden, & Staden. (2023, August). Elevating ESG. Boston University Global Development Policy Center. Retrieved March 31, 2024, from https://www.bu.edu/gdp/files/2023/08/GCI_GIZ-Report_2023_FIN.pdf
90. Strange, A. M., Dreher, A., Fuchs, A., Parks, B., & Tierney, M. J. (2015, September 20). Tracking Underreported Financial Flows: China's Development Finance and the Aid–Conflict Nexus Revisited. Journal of Conflict Resolution, 61(5), 935–963. https://doi.org/10.1177/0022002715604363
91. Sun. (2014, April). Africa in China's Foreign Policy. In John L. Thornton China Center and Africa Growth Initiative. East Asia Program of the Henry L. Stimson Center. Retrieved March 31, 2024, from https://www.almendron.com/tribuna/wp-content/uploads/2016/08/Africa-in-China-web_CMG7.pdf
92. The World Bank. (2024, January 23). Home | Worldwide Governance Indicators. World Bank. Retrieved March 31, 2024, from https://www.worldbank.org/en/publication/worldwide-governance-indicators
93. The World Bank. (n.d.). World Bank Open Data. World Bank Open Data. Retrieved March 31, 2024, from https://data.worldbank.org/indicator/TX.VAL.MMTL.ZS.UN
94. Tull. (2006, September). China's Engagement in Africa: Scope, Significance and Consequences. The Journal of Modern African Studies, 44(3), 459–479. https://www.jstor.org/stable/3876304
95. Universität Würzburg. (2021, March). Retrieved March 31, 2024, from https://www.democracymatrix.com/download
96. Vatcheva, K., Lee, M., McCormick, J., & Rahbar, M. (2016). Multicollinearity in Regression Analyses Conducted in Epidemiologic Studies. Epidemiology: Open Access, 06(02). https://doi.org/10.4172/2161-1165.1000227
97. Voetan, Strezhnev, & Bailey. (2009). United Nations General Assembly Voting Data. Harvard Dataverse. Retrieved March 31, 2024, from https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/LEJUQZ
98. Vreeland, J. R., & Dreher, A. (2014, May 29). The Political Economy of the United Nations Security Council. https://doi.org/10.1017/cbo9781139027755
99. Wantchekon, L. (2002). Why do Resource Abundant Countries Have Authoritarian Governments? https://www.princeton.edu/~lwantche/Why_Do_Resource_Dependent_Countries_Have_Authoritarian_Governments
100. Weisbrot. (2019, August). The IMF is hurting countries it claims to help. The Guardian. Retrieved March 31, 2024, from https://www.theguardian.com/commentisfree/2019/aug/27/imf-economics-inequality-trump-ecuador
101. Woods, N. (2008). Whose Aid? Whose Influence? China, Emerging Donors and the Silent Revolution in Development Assistance. International Affairs (Royal Institute of International Affairs 1944-), 84(6), 1205–1221. https://www.jstor.org/stable/25144989
102. World Mining Data. (n.d.). World Mining Data - Mineral Raw Materials. Retrieved March 31, 2024, from https://www.world-mining-data.info/?World_Mining_Data___Mineral_Raw_Materials
103. Yang, J. H., Wang, W., Wang, K. L., & Yeh, C. Y. (2018, May). Capital intensity, natural resources, and institutional risk preferences in Chinese Outward Foreign Direct Investment. International Review of Economics & Finance, 55, 259–272. https://doi.org/10.1016/j.iref.2017.07.015
104. Yarbrough, B., & Yarbrough, R. (2014). Cooperation and Governance in International Trade: the Strategic Organizational Approach | WorldCat.org. Search.worldcat.org. https://search.worldcat.org/title/884012943
105. Yotov, Y., Piermartini, R., Monteiro, J.-A., & Larch, M. (2016). An Advanced Guide to Trade Policy Analysis: The Structural Gravity Model. https://www.wto.org/english/res_e/booksp_e/advancedwtounctad2016_e.pdf
106. Yuan, Su, & Ouyang. (2022, May). China's Evolving Approach to Foreign Aid. In SIPRI Policy Paper. Stockholm International Peace Research Institute. Retrieved March 31, 2024, from https://www.sipri.org/sites/default/files/2022-05/sipripp62.pdf
107. Yushi, J., Borojo, D. G., Miao, M., & Zhang, X. (2020). The driving factors of Chinese aid allocation to African countries. Cogent Business & Management, 7(1), 1812219. https://doi.org/10.1080/23311975.2020.1812219
108. Zhao, Y., Kennedy, K., & Tang, K. (2018, September 6). Factors influencing the allocation of China's development assistance for health. Journal of Global Health, 8(2). https://doi.org/10.7189/jogh.08.020502
109. Zheng. (2016). China Debates the Non-Interference Principle. The Chinese Journal of International Politics, 9(3), 349–374.

© 2024 Global Journals

This page is intentionally left blank

© 2024 Global Journals

Global Journal of human-social science: H Interdisciplinary
Volume 24 Issue 4 Version 1.0 Year 2024
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Enhancing Building Depreciation Models: Integrating Obsolescence Factors in Modern Built Heritage

By José Elde Fernandes de Borba Júnior, João da Costa Pantoja, José Marcelo Martins Medeiros & Chenia Rocha Figueiredo

Catholic University of Brasilia

Abstract- This article is part of a master's thesis that aims to present an adaptation to the Ross-Heidecke model for calculating building depreciation. In addition to including the obsolescence coefficient, the adaptation of the conservation coefficient is proposed based on parameterization from the Dutch standard for building inspection. The proposed method is applied in hypothetical cases where levels of conservation, obsolescence, and useful life can be evaluated under extreme situations. The inclusion of the obsolescence coefficient for determining building depreciation is essential, as it assists in developing a more accurate assessment, resulting in a reduction of subjectivity. To verify the applicability of the method, hypothetical situations were established as a way of evaluating the behavior of depreciation in extreme situations, verifying results trend and whether the method applies to different cases. it can be stated that the applicability of the method presents results within the logical criteria already established by Ross-Heidecke, in addition to demonstrating the influence of obsolescence on the calculation of depreciation.

Keywords: *obsolescence, depreciation, ross-heidecke, heritage.*

GJHSS-H Classification: *LCC: HD69.B7, HC79.I52*



Strictly as per the compliance and regulations of:

© 2024. José Elde Fernandes de Borba Júnior, João da Costa Pantoja, José Marcelo Martins Medeiros & Chenia Rocha Figueiredo. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

Enhancing Building Depreciation Models: Integrating Obsolescence Factors in Modern Built Heritage

José Elde Fernandes de Borba Júnior [α], João da Costa Pantoja [σ], José Marcelo Martins Medeiros [ρ] & Chenia Rocha Figueiredo [ω]

Abstract- This article is part of a master's thesis that aims to present an adaptation to the Ross-Heidecke model for calculating building depreciation. In addition to including the obsolescence coefficient, the adaptation of the conservation coefficient is proposed based on parameterization from the Dutch standard for building inspection. The proposed method is applied in hypothetical cases where levels of conservation, obsolescence, and useful life can be evaluated under extreme situations. The inclusion of the obsolescence coefficient for determining building depreciation is essential, as it assists in developing a more accurate assessment, resulting in a reduction of subjectivity. To verify the applicability of the method, hypothetical situations were established as a way of evaluating the behavior of depreciation in extreme situations, verifying results trend and whether the method applies to different cases. it can be stated that the applicability of the method presents results within the logical criteria already established by Ross-Heidecke, in addition to demonstrating the influence of obsolescence on the calculation of depreciation.

Keywords: obsolescence, depreciation, ross-heidecke, heritage.

I. Introduction

Buildings, like any other material, tend to undergo changes due to natural aging. The building's useful life is directly related to its conservation and obsolescence level, these factors being a direct relationship between durability and performance.

Obsolescence is commonly considered as the beginning of the buildings' end-of-life stage (Thomsen and Van der Flier, 2011). For Garnett (2006) apud Pereyra (2020), obsolescence, or the process of becoming obsolete, occurs when a building is considered less suitable for its purpose.

Specialized literature addresses different types of obsolescence. However, the main classifications can be presented in the figure below:

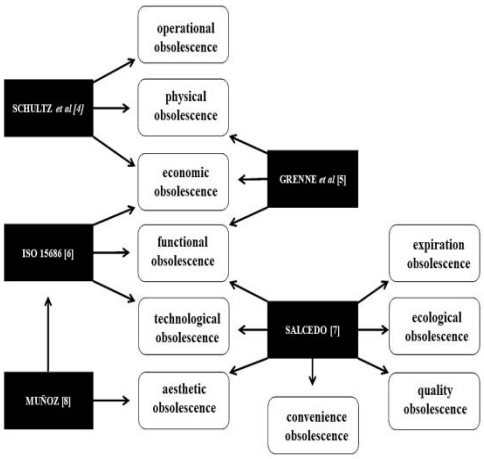

Fig. 1: Types of Obsolescence.
(Elaborated by the Authors).

Traditional property valuation methodologies measure depreciation as a determined coefficient, often as a reciprocal ratio to useful life. The criterion related to the state of conservation is approached as an analogy to apparent age, with uncertainty being assigned to the item, being open to the evaluator's relativism and personal subjectivity.

The introduction of the Heidecke method in valuation engineering is seen as an important milestone for depreciation valuation. The analysis, based on the physical condition, becomes an influencing factor for the calculation, establishing a proportion of depreciation versus intervention needs to building recovery.

The combined Ross-Heidecke method, presented by Abunahman (2008) and Nasser Júnior (2019), is a combination considering the depreciation related to the age of the building, proposed by Ross, and the depreciation related to the state of conservation, suggested by Heidecke.

Martinatti (2021) indicates adaptations to the methodology based on the ABNT NBR 15575 standard (2013) proposed by Galende (2018) and Ross-Heidecke adapted by Pimenta (2011), resulting in the development of a multi-criteria model for evaluating the

Author α: Degree in Civil Engineer at Catholic University of Brasilia. Master's Degree in Architecture and Urbanism at the University of Brasília. Professor at Centro Universitario de Brasília (CEUB). e-mail: jose.elde@hotmail.com
Author σ: Degree in Civil Engineering at University of Brasilia. Master's Degree in Structures and Civil Construction at University of Brasilia. Ph.D in Structures at Catholic University of Rio de Janeiro. Post-doctorate at the University of Porto. Adjunct Professor at University of Brasilia. e-mail: joaocpantoja@gmail.com
Author ρ: Degree in Architecture and Urbanism at University of Brasilia. Master's Degree in Architecture and Urbanism at University of Brasilia. Ph.D in Architecture and Urbanism at University of Brasilia. Adjunct Professor at the Federal University of Tocantins. e-mail: medeirosjose@gmail.com
Author ω: Degree in Civil Engineering at Federal University of Goias. Master's Degree in Structures at University of Brasilia. Ph.D in Structure and Civil Construction at University of Brasilia. Associate Professor at University of Brasilia. e-mail: chenia@unb.br

© 2024 Global Journals

Global Depreciation Factor (k_t). The main objective of the analysis is to measure the degradation coefficient, since determining the state of conservation or even incorporating the function of nonconformities leads to an equation focused only on the degradation of the building, thus avoiding the obsolescence factor. Although discussed by Galende (2018), obsolescence is not measured in his proposal. It is also not considered in the adaptations made by Pimenta (2011) and Martinatti (2021).

The motivation for this research focuses on presenting improvements to the current methods of calculating the buildings' depreciation coefficient, based on the consideration of the obsolescence state in the different building construction systems.

The analyzes of this research were developed at the Built Environment Rehabilitation Laboratory (LABRAC), coordinated by Prof. PhD João da Costa Pantoja, within the Existing Structures research group – Reliability-based Assessment Methodology, where integrations, adaptations and suggestions for probabilistic methodologies are studied, associated with carrying out inspections to promote data that can guide building's decision-making decisions, object of study.

The proposed method is analyzed based on its hypothetical cases application, aiming to verify in extreme situations, ensuring that the results are presented within the logical criteria already established by Ross-Heidecke.

The purpose of this work is to improve the Ross-Heidecke method, so that the overall depreciation coefficient of a building incorporates relevant characteristics regarding the impact of obsolescence in each of the construction systems.

II. Methodology

The data was collected through a sensory inspection, as indicated in ABNT NBR 16747 (2020), where the following information was gathered: non-conformities, pathological manifestations, age and useful life of each building's construction system, construction typology and obsoletism.

With this information, the model table for calculating the degradation coefficient was generated based on the parameterization in the Dutch Standard proposed by Martinatti (2021) and the calculation of the obsolescence coefficients, according to the methodology to be presented. In figure 2 we have the flowchart indicating, the proposed methodology.

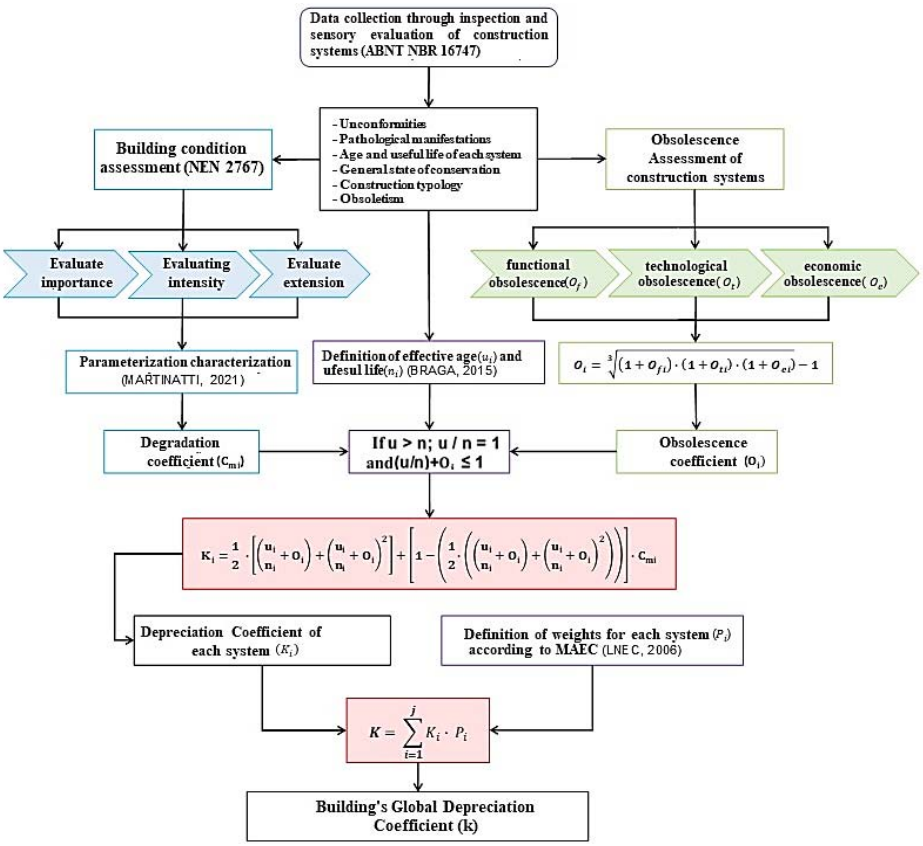

Fig. 2: Above Flowchart of the Proposed Method *(Elaborated by Authors).*

© 2024 Global Journals

a) Actual Age and Lifespan

As already observed in Braga's research (2015), the need to replace the age of the property and the useful life by the age of each constructive element and its respective useful life is necessary, since not all elements of the building have the same expected useful life.

In this way, an analysis of the depreciation coefficient was carried out for each building system, where each one had its own age, useful life, and conservation state.

Table 1 presents useful life values of a building main construction systems in accordance with ABNT NBR 15575 (2013), which were analyzed individually.

Table 1: Estimated construction systems useful life. MAEC apud Braga (2015), adapted by authors.

Construction system	Useful life (years)
Structure	120
Vertical seals	100
Roof	100
Floors	60
Hydrosanitary	60

b) Obsolescence Coefficients Calculation

ISO 15686-1 (2011) classifies obsolescence as functional, technological, and economic. In this paper, this classification was used to qualify and, subsequently, quantify obsolescence in construction systems. Based on the normal distribution, obsolescence was divided into 5 (five) distinct levels: *TOTAL, HIGH, MEDIUM, LOW* and *NONE.* Weight was assigned to each level according to the fraction of covered area in normal distribution, with variation every 0.5 in the standard deviation.

When the construction system is new, the samples standard deviation is 0 (zero), since there is NO obsolescence. Therefore, the area corresponding to the NONE level is the area presented in the normal distribution graph, which in this case is 0 (zero).

Table 2: Obsolescence Classification *(Elaborated by Authors).*

Degree	Obsolescence			Weight
	Functional	Technological	Economic	
Total	Complete loss of function. Element has no function for the building.	Outdated technology. There are no spare parts. Immediate replacement.	Financially unfeasible recovery. More expensive solution than other alternatives.	1
High	Function of little importance, already in an advanced stage of shutdown.	Reduced performance. Replacement close or imminent.	Not very efficient. The costs of losses and waste are considerable.	0,955
Average	Element still operational, but with compromised function.	It meets the needs, but there are modern alternatives now.	It presents good cost-benefit, but there are already losses.	0,683
Low	Functionality little affected.	Technology in use, with good performance.	Minimum losses. Use resources productively.	0,385
None	Does not present functional obsolescence	Does not present technological obsolescence	Does not present economic obsolescence	0

It is possible to observe that when obsolescence (regardless the type) is classified as degree NONE, the weight assigned is 0 (zero). As obsolescence manifests, the weights assigned increase, reaching the limit state of obsolete, where the value is 1 (one), that is, it has reached 100%.

The coefficient for each type of obsolescence was determined by performing the arithmetic mean of the values assigned in the relevant subsystems to the analyzed system. Thus, the functional obsolescence coefficient of system X is the average of the values attributed to the functional obsolescence of its respective subsystems.

The general obsolescence coefficient of the analyzed construction system is given by the following equation:

$$O_i = \sqrt[3]{(1+O_{fi})\cdot(1+O_{ti})\cdot(1+O_{ei})} - 1 \qquad (1)$$

Being:

O_i obsolescence coefficient of each construction system;

O_{fi} functional obsolescence coefficient of each construction system;

O_{ti} technological obsolescence coefficient of each construction system;

O_{ei} economic obsolescence coefficient of each construction system.

© 2024 Global Journals

After establishing the age and useful life of each construction element, the obsolescence coefficient is determined, for each system. From there, the value of the ratio between real age and useful life plus the obsolescence coefficient, if applicable, incorporates the impact of functional, technological, and economic obsolescence in the assessment of the building's depreciation.

c) Degradation Coefficient Calculation

It is proposed to replace the Ross-Heidecke conservation coefficient for the degradation coefficient presented by Martinatti (2021), calculated from the parameterization of the Dutch Standard (2006).

The degradation coefficient of the construction system consists of the arithmetic mean of the subsystems of the values assigned to each condition description of each subsystem analyzed based on the parameterization of the Dutch standard.

d) Calculation of the Depreciation Coefficient for Each Construction System

After carrying out the necessary changes and incorporations, calculating the obsolescence and degradation coefficients, we have the following equation as a proposed method:

$$K_i = \frac{1}{2} \cdot \left[\left(\frac{u_i}{n_i} + O_i\right) + \left(\frac{u_i}{n_i} + O_i\right)^2\right] + \left[1 - \left(\frac{1}{2} \cdot \left(\left(\frac{u_i}{n_i} + O_i\right) + \left(\frac{u_i}{n_i} + O_i\right)^2\right)\right)\right] \cdot C_{mi} \quad (2)$$

Being:

- K_i depreciation coefficient of each construction system;
- O_i obsolescence coefficient of each construction system;
- u_i effective or current age of the construction system, according to Braga (2015);
- n_i useful life of the construction system, according to Braga (2015);
- C_{mi} degradation coefficient of each construction system calculated based on the parameterization of the Dutch Standard NEN 2767 (2006), according to Martinatti (2021).

To satisfy the principles of the Ross-Heidecke equation and meet the observations of Thomsen and Van der Flier (2011) that, when obsolescence occurs, the building accelerates its depreciation process, moving towards the end of its useful life, the coefficient of obsolescence must be added to the relationship between effective age and useful life.

However, for the equation to be balanced, the result of the sum of the coefficient with the relationship between age and useful life must not be greater than 1. In other words, regardless of the value attributed to the depreciation coefficient of the system under analysis, the sum of this with the value of the relationship between effective age and useful life cannot be greater than 1, respecting the following condition:

$$\left(\frac{u_i}{n_i} + O_i\right) \leq 1 \;\; ; \;\; se \;\; \left(\frac{u_i}{n_i} + O_i\right) > 1 \;\rightarrow\; \text{assign 1}$$

e) Global Depreciation Coefficient Calculation

Based on the depreciation coefficients of each construction element and using the weights established in the MAEC methodology and presented by Braga (2015), a weighted average was performed, resulting in the calculation of the building's overall depreciation coefficient, according to the following equation:

$$K = \sum_{i=1}^{j} K_i \cdot P_i \quad (3)$$

Being:

- K overall building depreciation coefficient;
- K_i depreciation coefficient of each construction system;
- P_i weighting of each construction system, adapted from the MAEC method;
- i constructive system subject to depreciation;
- j number of construction systems subject to depreciation.

The weighting coefficients of each construction system are an adaptation of the method presented by MAEC and used by Braga (2015), with the following values:

Table 3: Weighting of construction systems. Maec apud Braga (2015), adapted by the Author.

Construction system	Weighting (%)
Structure	30
Vertical seals	20
Roof	25
Floors	10
Hydrosanitary	15

III. Case Study

To verify the applicability of the proposed method, hypothetical situations were established as a way of evaluating the behavior of depreciation in extreme situations, verifying results trend and whether the method applies to different cases. Five hypothetical cases were evaluated:

Hypothetical Case 01: System has already reached VUP, there is no obsolescence or degradation.

Hypothetical Case 02: New system, completely obsolete but showing no degradation.

Hypothetical Case 03: New system, completely degraded but without obsolescence, whether functional, technological, or economic.

Hypothetical Case 04: System has already reached VUP, is completely obsolete and completely degraded.

© 2024 Global Journals

Hypothetical Case 05: New system, with no degradation or obsolete elements.

Table 4: Coefficients to be evaluated in each hypothetical case *(Elaborated by Authors).*

Hypothetical Case	Age Factor (u/n)	Obsolescence Coefficient	Degradation Coefficient
01	**1**	0	0
02	0	**1**	0
03	0	0	**1**
04	**1**	**1**	**1**
05	0	0	0

As a way of establishing a relationship between the hypothetical cases, it was established that the evaluation of all examples took place in the floor system of a residential building. This definition is random, as any other system could be evaluated. However, as this is an exemplification of the application of the method in hypothetical cases, this study was limited to using a single system, regardless of which one was used, the responses and final observations will be the same, as these are extreme events.

IV. Results

a) Method Application in Hypothetical Case 01

Input Data: Residential building where the real age of the flooring system has already reached the VUP (60 years). Despite achieving VUP, the system does not show degradation or materials obsolescence.

Hypothetical case 01

Depreciation coefficient calculation hypothetical case 01:

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right)\right)\right]\cdot C_{m,floors}$$

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{60}{60} + 0\right) + \left(\frac{60}{60} + 0\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{60}{60} + 0\right) + \left(\frac{60}{60} + 0\right)^2\right)\right)\right]\cdot 0$$

$$\boldsymbol{K_{floors} = 1}$$

b) Method Application in Hypothetical Case 02

Input Data: New residential building, where the flooring system has just been completed and there is no degradation of the material. However, in this case we will assume that the obsolescence coefficient has reached the TOTAL level, the system is completely obsolete, whether in functional, technological, or economic aspects.

Hypothetical case 02

Depreciation coefficient calculation hypothetical case 02:

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right)\right)\right]\cdot C_{m,floors}$$

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{0}{60} + 1\right) + \left(\frac{0}{60} + 1\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{0}{60} + 1\right) + \left(\frac{0}{60} + 1\right)^2\right)\right)\right]\cdot 0$$

$$\boldsymbol{K_{floors} = 1}$$

c) Method Application In Hypothetical Case 03

Input Data: New residential building, with new flooring system. However, in this case we will assume that the degradation coefficient has reached the TOTAL level, the system is completely degraded; and that no obsolescence was observed in any of the parameters, whether functional, technological, or economic.

Hypothetical case 03

Depreciation coefficient calculation hypothetical case 03:

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right)\right)\right]\cdot C_{m,floors}$$

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{0}{60} + 0\right) + \left(\frac{0}{60} + 0\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{0}{60} + 0\right) + \left(\frac{0}{60} + 0\right)^2\right)\right)\right]\cdot 1$$

$$\boldsymbol{K_{floors} = 1}$$

d) Method Application in Hypothetical Case 04

Input Data: The actual age of the flooring system of the residential building has already reached the VUP (60 years); the degradation and obsolescence coefficient were assessed as maximum; the system is completely degraded and obsolete.

Hypothetical case 04

Depreciation coefficient calculation hypothetical case 04:

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right)\right)\right]\cdot C_{m,floors}$$

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{60}{60} + 1\right) + \left(\frac{60}{60} + 1\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{60}{60} + 1\right) + \left(\frac{60}{60} + 1\right)^2\right)\right)\right]\cdot 1$$

$$K_{floors} = \frac{1}{2}\cdot[2+4] + \left[1 - \left(\frac{1}{2}\cdot(2+4)\right)\right]\cdot 1$$

$$\boldsymbol{K_{floors} = 1}$$

If $u > n$; $u/n = 1$ and $(u/n) + O_i \leq 1$

e) Method Application in Hypothetical Case 05

Input Data: For the last hypothetical case, a new flooring system will be evaluated, without the occurrence of degradation or materials obsolescence.

Hypothetical case 05

Depreciation coefficient calculation hypothetical case 05:

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right) + \left(\frac{u_{floors}}{n_{floors}} + O_{floors}\right)^2\right)\right)\right]\cdot C_{m,floors}$$

$$K_{floors} = \frac{1}{2}\cdot\left[\left(\frac{0}{60} + 0\right) + \left(\frac{0}{60} + 0\right)^2\right] + \left[1 - \left(\frac{1}{2}\cdot\left(\left(\frac{0}{60} + 0\right) + \left(\frac{0}{60} + 0\right)^2\right)\right)\right]\cdot 0$$

$$\boldsymbol{K_{floors} = 0}$$

A summary of results obtained from the application of the proposed method in hypothetical cases of extreme situations can be seen in Table 5.

© 2024 Global Journals

Table 5: Behavior of the Proposed Method in Extreme Hypothetical Situations.

Hypothetical case	Age Factor (u/n)	Obsolescence Coefficient	Degradation Coefficient	Proposed Method Response
01	1	0	0	100% depreciated
02	0	1	0	100% depreciated
03	0	0	1	100% depreciated
04	1	1	1	100% depreciated
05	0	0	0	There is no depreciation

Figure 3 shows a graphical comparison of results obtained in hypothetical cases, making it possible to observe the influence of age factor (u/n), obsolescence and degradation coefficient for the depreciation assessment.

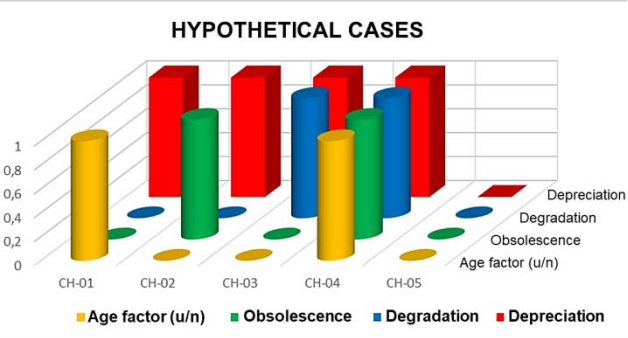

Fig. 3: Behavior of Methodology Application in Extreme Hypothetical Cases *(Elaborated by Authors).*

V. Conclusion

The usual methods for calculating the depreciation coefficient do not present criteria for determining obsolescence in the construction systems of a building, making the assessment insufficient, as the degradation coefficient cannot completely represent all losses in the building's value.

Bibliographical reviews on obsolescence demonstrated the lack of technical information regarding its definition, classification, and measurement. It can be concluded that the application in hypothetical cases provides a better view of the impact of the coefficients on the proposed methodology for determining depreciation.

Regardless of the system evaluated, if any of the three factors (age, obsolescence, or degradation) reach a maximum evaluation, the equation will present, as a result, a total depreciation, maintaining the criteria already recommended in the Ross-Heidecke method.

Thus, it can be stated that the applicability of the proposed method presents results within the logical criteria already established by Ross-Heidecke, in addition to demonstrating the influence of obsolescence on the calculation of depreciation.

The presented proposal is its initial stages, it is up to future research to propose tools to calibrate the methodology to represent the reliable depreciation of a building, considering its degradation, obsolescence, and any other reasonable factor important for the evaluation.

Finally, the motivation for this research focuses on the intention of presenting improvements to the current methods of calculating the depreciation coefficient of buildings based on the consideration of the obsolescence state in the different construction systems that make up the building.

Acknowledgements

Let us thank the University of Brasília for being the stage for such academic inspiration, and LabRAC - Laboratory for Rehabilitation of the Built Environment, for the encouragement and opportunity to develop research aimed at the recovery and improvement of buildings. I also thank the National Council for Scientific and Technological Development (CNPq) and the Federal District Research Support Foundation (FAPDF) for encouraging and promoting research.

References Références Referencias

1. ABUNAHMAN, S. A. (2008). *Curso básico de engenharia legal e de avaliações.* 4a ed. São Paulo. SP. PINI.
2. ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS. ISO 15686-1. (2011). *Buildings and constructed assets - Service life planning. General principles and framework.*
3. ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS. NBR 15575. (2013). *Edificações Habitacionais - Desempenho. partes 1-6*. Rio de Janeiro, 2013.
4. ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS. NBR 16747. (2020). *Inspeção predial - Diretrizes, conceitos, terminologia e procedimento.* Rio de Janeiro.
5. BRAGA, F. M. V. (2015). *A depreciação dos edifícios na avaliação imobiliária: Proposta de método de cálculo do coeficiente de depreciação.* Dissertação de Mestrado. Faculdade de Engenharia. Universidade do Porto. Portugal.
6. Dutch Standard NEN 2767. (2006). *Conditiemeting van bouw - en installatiedelen – Deel 1: Methodiek (Condition Assessment of Building and Installation Components – Part 1: Methodology).* NEN, Delft.
7. GALENDE, A. B. F. (2018). *Depreciação e Obsolescência em edificações com base na norma de desempenho NBR 15575/2013: Estudo em uma instituição de ensino.* Dissertação de Mestrado. UFPA. Belém, Pará.

© 2024 Global Journals

8. GARNETT, D. (2006). *The theory and practice of building renewal.* Housing and society. Available at: <https://leapingfrogpublications.co.uk/housingsociety/building-obsolescence/>. accessed April 15, 2024.
9. MARTINATTI, Y. W. P. (2021) *Desenvolvimento de modelo multicritério de tomadas de decisões para aplicação na conservação de edificações das superquadras do Plano Piloto em Brasília/DF.* Dissertação de Mestrado em Arquitetura e Urbanismo. Programa de Pós-Graduação em Arquitetura e Urbanismo, Faculdade de Arquitetura e Urbanismo, Universidade de Brasília.
10. NASSER JÚNIOR, R. (2019). *Avaliação de bens. Princípios básicos e aplicações.* Editora Leud. 3ª ed. São Paulo.
11. PEREYRA, E. P. Z. (2020). *Modelo de Gestión de la Obsolescencia de Edificios: Estudio de la interacción de los factores de obsolescencia mediante un modelo numérico.* Dissertação de Mestrado. Facultad de Arquitectura, Diseño y Estudios Urbanos. Santiago, Chile.
12. PIMENTA, J. C. (2011). *Propostas de desenvolvimento dos modelos clássicos de valoração da depreciação física na avaliação imobiliária.* Instituto Superior de Engenharia de Lisboa. Lisboa.
13. THOMSEN, A.; VAN DER FLIER, K. (2011) *Obsolescence and the end of life phase of buildings. Management and Innovation for a Sustainable Built Environment*. Amsterdam, Holanda.

© 2024 Global Journals

This page is intentionally left blank

© 2024 Global Journals

Global Journal of human-social science: H Interdisciplinary
Volume 24 Issue 4 Version 1.0 Year 2024
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Impact of COVID-19 Lockdown: Stratified Livelihoods in Nepal a Sociological Analysis

By Shukra Raj Adhikari, Bhawani Shankar Adhikari, Ganga Acharya & A.K. Mishra

Tribhuvan University

Abstract- The COVID-19 pandemic prompted the government of Nepal to institute a series of lockdowns from March 24, 2020, significantly affecting the livelihoods of its citizens. This study explores stratified livelihoods during Pandemic lockdowns in Nepal and of these measures, uncovering nuanced and diverse experiences across different strata of Nepali society.

Therefore, utilizing a qualitative research approach, the study employs primary and secondary data collection methods, such as observations and case studies, and analyses the data through content analysis techniques.

The findings reveal a spectrum of impacts, ranging from individuals finding solace and familial bonding during the lockdown—equating it to a period of celebration to those experiencing severe hardships. These hardships included undertaking long-distance travel on foot without adequate sustenance and facing limited access to medical care. The diverse experiences observed align, to some extent, with the theoretical frameworks of Marx and Weber, showcasing the varied socio-economic repercussions of the lockdown measures.

Keywords: covid-19 lockdown; livelihood patterns; stratified; nepali society; socio-economic repercussions; pandemic interventions.

GJHSS-H Classification: LCC: RA644.C67, HM548



Strictly as per the compliance and regulations of:

© 2024. Shukra Raj Adhikari, Bhawani Shankar Adhikari, Ganga Acharya & A.K. Mishra. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

Impact of COVID-19 Lockdown: Stratified Livelihoods in Nepal a Sociological Analysis

Shukra Raj Adhikari [α], Bhawani Shankar Adhikari [σ], Ganga Acharya [ρ] & A.K. Mishra [ω]

Abstract- The COVID-19 pandemic prompted the government of Nepal to institute a series of lockdowns from March 24, 2020, significantly affecting the livelihoods of its citizens. This study explores stratified livelihoods during Pandemic lockdowns in Nepal and of these measures, uncovering nuanced and diverse experiences across different strata of Nepali society.

Therefore, utilizing a qualitative research approach, the study employs primary and secondary data collection methods, such as observations and case studies, and analyses the data through content analysis techniques.

The findings reveal a spectrum of impacts, ranging from individuals finding solace and familial bonding during the lockdown—equating it to a period of celebration to those experiencing severe hardships. These hardships included undertaking long-distance travel on foot without adequate sustenance and facing limited access to medical care. The diverse experiences observed align, to some extent, with the theoretical frameworks of Marx and Weber, showcasing the varied socio-economic repercussions of the lockdown measures. This research sheds light on the complex dynamics of pandemic interventions on livelihoods within the Nepali context. It provides valuable insights to understand and mitigate the multifaceted impacts of such measures on various societal layers.

Keywords: covid-19 lockdown; livelihood patterns; stratified; nepali society; socio-economic repercussions; pandemic interventions.

I. Introduction

The emergence of the novel coronavirus (COVID-19) in December 2019, which originated in Wuhan, China, quickly evolved into a worldwide pandemic, officially recognized by the World Health Organization (WHO) on March 11, 2020. Unlike epidemics, pandemics extend beyond regional boundaries, impacting multiple countries and continents, leading to a significant loss of lives and widespread transmission. COVID-19 transitioned from an epidemic in China to a pandemic that swiftly permeated across the globe in months (Morens et al., 2009; Hickok, 2020; Zeeshan et al., 2020). The COVID-19 pandemic unleashed unprecedented challenges, mainly underscoring the fragility of healthcare systems and economies worldwide. Developing nations bore the brunt of these challenges, facing intensified disruptions across various sectors, including socio-economics, finance, healthcare, leadership, and international collaboration (Elkington & Hughes, 2017; Van Prooijen & Van Lange, 2014; Rodela et al., 2020). The imposition of lockdown measures accentuated the pandemic's adverse effects, particularly on people's livelihoods, amplifying existing inequalities across different societal strata (Jaspal et al., 2020; Son et al., 2020). Further, in the countries like Nepal, the ramifications about the pandemic were especially profound, exposing and widening the fissures within the socio-economic fabric of society (Rowley et al., 2021; Triandafyllidou, 2022). Similarly, vulnerable and marginalized populations experienced disproportionate hardships, illuminating these impacts nuanced and stratified nature. The lockdown measures served as a catalyst, bringing the disparities across different segments of Nepali society to the forefront and necessitating a thorough examination of the livelihood patterns during this period.

This study delves into the intricate dynamics of the stratified livelihood patterns in Nepali society during the 2020 lockdown period. By scrutinizing the socio-economic repercussions of the COVID-19 pandemic and the containment measures implemented, this research aims to elucidate how this global health crisis has magnified pre-existing disparities among various strata in Nepal. Thus, unravelling these complexities is pivotal for devising effective policies and strategies that mitigate the pandemic's long-lasting impacts and foster a more equitable and resilient society in Nepal. This article aims to understand and examine the various ways in which people in Nepal have adjusted their livelihoods during the COVID-19 lockdown. By exploring these experiences, it seeks to offer valuable insights that can guide policy-making and better prepare for future challenges.

While numerous studies have delved into the socio-economic repercussions of the COVID-19 pandemic worldwide (Attah et al., 2013; Eneyo et al., 2021; Mishra et al., 2020; Awofeso & Irabor, 2020; Obi et al., 2020; Andam et al., 2020), there remains a noticeable gap in understanding the intricate effects on livelihoods within specific contexts like Nepal.

Author α: Associate Professor, Central Department of Sociology, Tribhuvan University, Kathmandu, Nepal.
e-mail: shukrarajadhikari3@gmail.com,
Orcid ID: 0000-0003-4099-1761
Author σ: Associate Professor of English, Sanskrit University, Dang, Nepal. e-mail: bhawanishankar.adhikari12@gmail.com
Author ρ: Adjacent lecturer and PhD Scholar, Department of Social Work, Tribhuvan University, Kathmandu, Nepal.
e-mail: Gangaacharya075@gmail.com
Author ω: D.Sc. Research Scholar, Srinivas University, India, Apex College, Kathmandu, Nepal. e-mail: anjaymishra2000@gmail.com,
Orcid ID: 0000-0003-2803-4918

© 2024 Global Journals

Addressing this gap, this research aims to thoroughly examine how the COVID-19 lockdown has impacted livelihood patterns across different segments of Nepali society. Through a qualitative research approach combining primary and secondary data collection methods, the study intends to shed light on the diverse and nuanced experiences of the Nepali population amidst this unprecedented global crisis.

Similarly, drawing on observations, case studies, and content analysis techniques, the investigation aims to uncover the spectrum of adaptations and repercussions—ranging from familial solace and celebration to severe hardships and inequitable access to resources and medical care. This inquiry is grounded in the theoretical frameworks of Marx and Weber, providing a lens through which to interpret and understand the observed socio-economic disparities and inequalities (Ritzer, 2000). This research aims not only to bridge an important knowledge gap but also to enhance our understanding of the intricate effects of pandemic interventions on livelihoods. The knowledge gained will be crucial for shaping future policies and strategies to foster a more equitable and resilient societal response, not only in Nepal but also potentially in similar contexts worldwide.

II. Literature Review

An integrated approach is essential for addressing the interconnectedness of human, animal, and environmental health, emphasizing that no single sector can effectively manage health issues emerging at this intersection alone. The COVID-19 pandemic highlights the necessity of this integration, bringing together a diverse array of professionals including medical doctors, nurses, virologists, laboratory experts, and environmental scientists. Esteemed organizations such as the World Health Organization (WHO), the United Nations Food and Agriculture Organization (FAO), and the World Organization for Animal Health (OIE) have led collaborative efforts against the virus. Their combined endeavors have played a vital role in identifying the outbreak's origins, containing its spread, and devising strategies to prevent future pandemics and mitigate their impacts (WHO, 2019; 2022). This concept of augmented collaboration in health crisis management is not novel. Researchers such as Coyne and Jennings and Ionescu et al. have historically highlighted the urgency for increased trauma Centre readiness, addressing the escalating number of mass-casualty incidents worldwide (Ionescu et al., 2021). Similarly, the Australian Medical Association (AMA) has advocated for the inception of a disease control Centre in Australia, cognizant of the absence of a singular national authority dedicated to scientific investigation and effective leadership in managing contagious diseases (AMA, 2017; Buheji et al., 2020). Thus, such an establishment would be critical in addressing prevailing and emerging threats nationally, fostering collaboration with states and territories and augmenting global health efforts.

Moreover, The COVID-19 pandemic has underscored the importance of national and state identity, particularly within the United States. The federalist framework has facilitated the decentralization of information sharing and policy-making to state and local governments. The disparity in responses across states has inevitably influenced citizens' trust in authorities, with state identity emerging as a pivotal determinant of individuals' perceptions of and reactions to government measures (Bayram & Shields, 2021; Pears & Sydnor, 2022). Consequently, the pandemic has illuminated the complex interplay between identity, governance, and public trust and how these elements collectively shape societal responses to health crises.

Furthermore, the environmental origins of the coronavirus bring to the forefront the intricate relationship between human activities and the emergence of infectious diseases. The encroachment of humans into natural habitats, propelled by urbanization, deforestation, and unsustainable agricultural practices, has not only escalated the pace of climate change but also catalyzed the transmission of zoonotic diseases. Most emerging infections are postulated to have zoonotic origins, highlighting the pressing need to integrate environmental and ecological considerations in strategies for pandemic prevention (Anderson, 2020; Coyne & Jennings, 2020; Walzer, 2020). The additional layer of climate-induced displacements, particularly prevalent in the Global South, further complicates this intricate interaction between environmental mobility and disease transmission (Selby & Kagawa, 2020; Carmody et al., 2020).

The socio-economic impacts of the COVID-19 pandemic have been extensive and profound. The crisis has starkly magnified disparities, impacting vulnerable populations disproportionately and intensifying inequalities across and within countries. While government interventions in developed nations have assuaged some economic fallout, in developing countries like Nepal, the challenges have been compounded by pre-existing vulnerabilities and constrained resources (Murray, 2020; Beach et al., 2022). Thus, the pandemic has laid bare the interconnectedness of global economic activities and underscored the imperative for equitable access to resources as a cornerstone for addressing systemic biological disasters.

In light of the unprecedented scale and impact of COVID-19, the field of epidemiology has been thrust into the limelight. However, addressing the multifaceted challenges engendered by the pandemic necessitates a more holistic approach, integrating economic, social, environmental, and health perspectives. This is vital for the cultivation of resilience and preparedness for future

© 2024 Global Journals

pandemics. The experiences of countries such as Nepal, where stratified livelihoods have significantly shaped the responses to the crisis, provide a wellspring of knowledge, underscore the diversity of challenges encountered and accentuate the need for tailored solutions. Therefore, The COVID-19 pandemic has emphasized the crucial importance of interdisciplinary and international cooperation in managing health crises at the intersection of human, animal, and environmental factors. It has underscored the influence of identity in shaping public trust, revealed the environmental underpinnings of infectious diseases, and amplified the socio-economic disparities that global crises can exacerbate. Drawing insights from the diverse experiences of various countries and integrating multiple perspectives is paramount. This convergence of knowledge and experience is crucial for developing comprehensive, equitable, and effective strategies poised to combat current and prospective pandemics.

Nepal, with its diverse and vibrant tapestry of varied landscapes, ethnic groups, languages, and cultures, is a significant backdrop for this study. This landlocked South Asian country, characterized by a predominantly agrarian economy and stark socio-economic disparities, provides a unique context for exploring stratified livelihood patterns, particularly during disruptive events like the COVID-19 pandemic. The combination of the Nepali government's strict lockdown measures, the inherent vulnerabilities of its population, and the unique cultural context make Nepal a particularly intriguing area for study. Against this backdrop, the research meticulously dissects the complexities of livelihood stratification during the pandemic, shedding light on the interplay between demographic diversity, socio-economic inequalities, and external disruptions within Nepal's specific geographical and cultural milieu.

III. Objective and Method

This research is focused to analyze the stratified livelihoods in lockdown period of COVID 19 of Nepal.

a) Methodological Frame Work

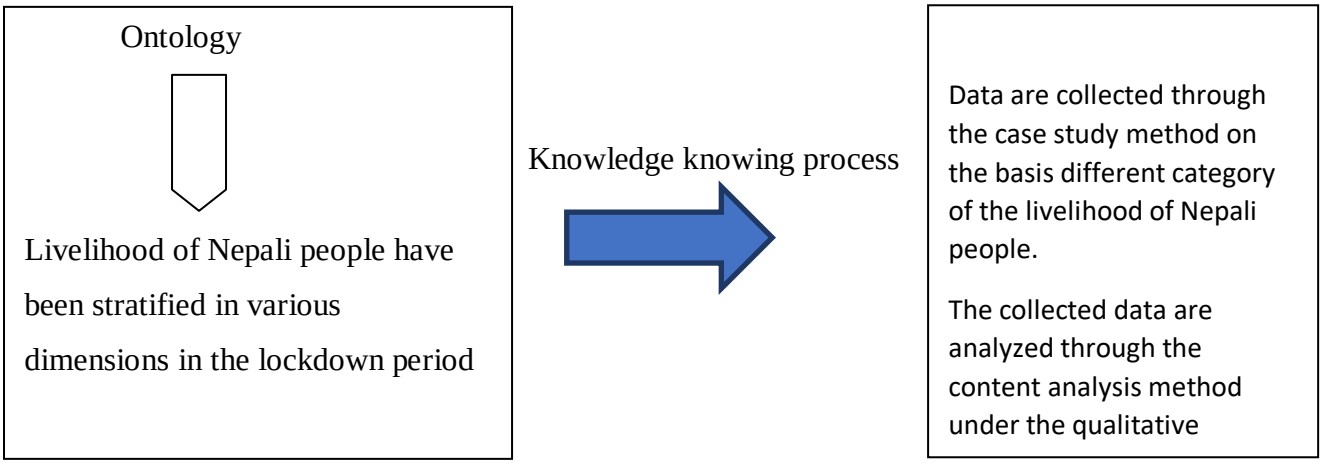

Figure 1: Methodological Frame Work

Considering this distinct and diverse context, the study utilizes a comprehensive research approach to comprehend the intricate effects of the pandemic on various segments of society in Nepal. The study adopts a qualitative research approach to investigate these stratified impacts, aligning with the methodologies outlined by notable scholars (Ijomah et al., 2007; Neuman, 2007; Cooper & Green, 2016). The research employs observation and case study methods to capture the intricacies of lived experiences and gather rich, qualitative data during this unprecedented period. For this research, data are collected meticulously from both primary and secondary sources. Primary data is centered on particular demographics, such as wage earners and frontline workers. On the other hand, secondary data, obtained through thorough content analysis (Adhikari et al., 2024), provides context to the findings and enhances the study by comparing observed patterns with existing theories and prior research.

Given the extensive qualitative data collected, the subsequent critical phase entails the meticulous selection of cases to guarantee the diversity and inclusivity of the study sample. To ensure a broad spectrum of the population is represented, case selection is carried out via purposive sampling. This approach is crucial for revealing the multifaceted effects of the pandemic on various societal groups in Nepal.

© 2024 Global Journals

Therefore, by integrating these varied methodologies and data resources, the study aims to thoroughly investigate the intricate dynamics of livelihood disparities in Nepal during the COVID-19 lockdown, thus offering significant insights for future policy and intervention planning.

IV. Theoretical Discourse

Having outlined the methodological approach, it is crucial to explore the theoretical frameworks guiding the analysis and interpretation of the collected data. This study's theoretical framework revolves around social structure and its inherent stratification, with Marxist and Weberian theories serving as the primary analytical lenses. In addressing social inequality, these theories offer distinct perspectives on social stratification (Davis, 2017, Ritzer, 2000 and Turner& turner1978).

a) Theoretical Frame Work

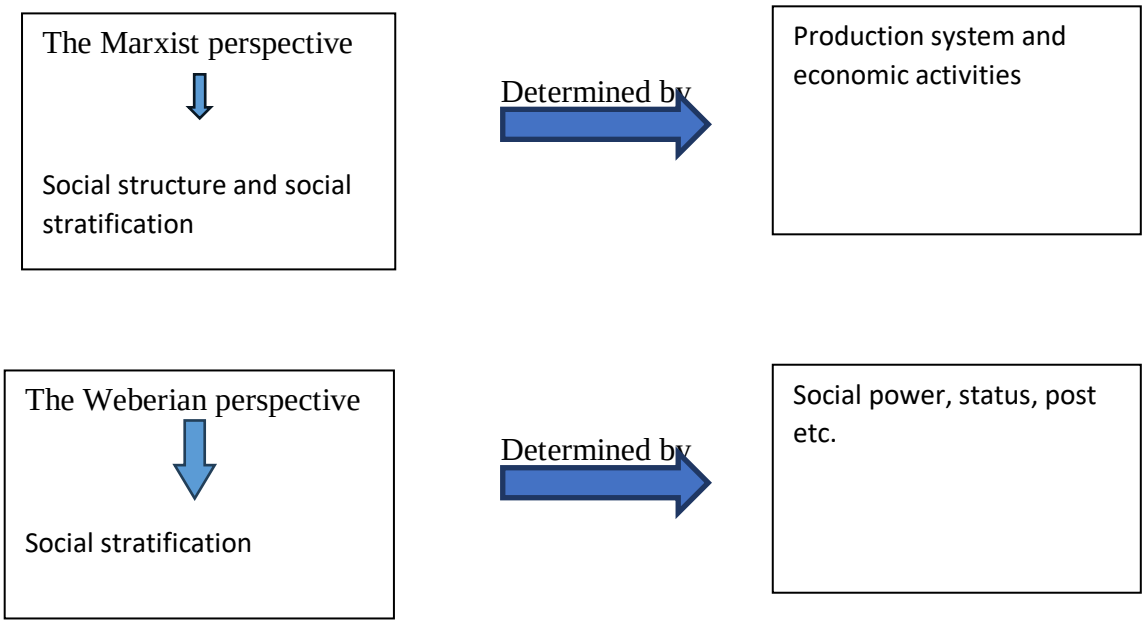

Figure 2: Theoretical Frame Work

The Marxist perspective, developed by Karl Marx and Friedrich Engels, emphasizes the primacy of economic factors in shaping social structure, laying the groundwork for societal disparities (Marx and Engels, 1848). The consciousness of human beings is always determined by his social existence and it is produced by the production system of social structure (Adhikari, 2020). Conversely, Max Weber's theory presents a more nuanced view, incorporating additional dimensions such as status and power as significant contributors to social inequality (Coser, 1996 and Tumin, 1953). In the context of this study in Nepal, both Marxist and Weberian theories play crucial roles. The Marxist perspective enables a critical examination of the economic foundations influencing the experiences of different segments of the Nepali population during the lockdown, unveiling patterns of resilience and vulnerability.

Simultaneously, the Weberian perspective introduces considerations of status and power, allowing for a nuanced exploration of how these elements and economic factors have influenced individuals' livelihoods during the pandemic. In the same vein, by synthesizing insights from both theoretical frameworks, this study unravels the intricate tapestry of stratified livelihood patterns in Nepal, shedding light on the diverse experiences and challenges different population segments face. This multifaceted approach aims to contribute valuable insights to the discourse on social inequality and inform policy and intervention strategies, fostering a more equitable and resilient societal structure in Nepal in the face of future disruptions.

V. Data Analysis and Interpretation

a) Impact of COVID-19 Lockdown and Stratified Livelihoods in Nepal

During the global health crisis, nations implemented diverse strategies, predominantly relying on lockdowns. Following suit, the Nepali government adopted this approach, considering it the most efficient means to contain COVID-19 spread, assuming that all citizens could withstand the lockdown regardless of available resources. However, this assumption was tested as the lockdown uncovered and exacerbated existing inequalities among various social classes in

© 2024 Global Journals

Nepal, with privileged individuals accessing resources more readily than others.

b) Celebration and Despair

The study unravels that in times of festivity, the preparation of various delicacies marks the celebration with loved ones. For the higher and upper-middle classes, the lockdown period transformed into a semblance of a festival, a time of culinary exploration and familial bonding. This is well illustrated by Case-5, a businessman, who found solace in spending time with family and indulging in daily feasts. However, this celebratory atmosphere starkly contrasts with the experiences of the lower class. Faced with depleted rations and financial constraints, many struggled to meet basic needs, as exemplified by Case-7, a daily wager, who expressed a heart-wrenching tale of despair, contemplating extreme measures in the face of adversity.

c) Time Management Dilemma

The study further reveals that the initial phases of the lockdown brought respite from daily hassles, providing an unexpected vacation for many. However, as the lockdown extended beyond two months, boredom set in. Middle-class individuals, initially engaged in household activities and family bonding, found difficulty passing time, often resorting to social media and television. For instance, Case-3, a student, narrated the transition from initial enjoyment to a struggle with monotony, while Case-4, a cloth retailer, expressed a yearning for the end of lockdown due to growing lethargy. However, for daily wagers like Case-7, the struggle with time arose from the burden of family responsibilities and a scarcity of resources.

d) Conflicting Circumstances

From our investigation, it was revealed that despite the government's assurance that individuals could venture out for necessities, conflicting scenarios emerged. The study further illustrates those numerous instances of police high-handedness, including punitive measures against those seeking medical necessities, painted a confusing picture. This raised a fundamental dilemma: Should individuals risk punitive actions for fulfilling essential needs, or should they comply with lockdown measures at the expense of their health and sustenance?

Furthermore, our enquire reveals that to comprehensively address these disparities and challenges, there is a need for targeted interventions and clear communication from the authorities. Efforts should be made to ensure that essential services and support reach the most vulnerable sections of society, and enforcement measures are applied judiciously. Additionally, a multi-sectoral approach involving community engagement can help in addressing the diverse needs and challenges faced by different social classes during such unprecedented times.

e) Stressful Life

Stressful life events can trigger a crisis state, where individuals temporarily endure intense distress and feel overwhelmed or unable to cope effectively, seeking ways to alleviate discomfort or mitigate hazardous circumstances (Douglas et al., 2017) During periods of crisis, people from the working class are the ones who usually bear the brunt among them are the daily wagers, farmers. They must fend for themselves, with little or no help from the government (Gautam, 2020). Case 1(Construction worker) said that he was working on the construction site and with the lockdown, their work has stopped. His family depended on his daily wage but now there is no source of income. Case 13 (student) said that he has been living in Kathmandu for study purposes. At the beginning of the lockdown, there was uncertainty regarding when the lockdown will end so with the hope that college will resume soon he couldn't go back to his hometown but now the lockdown time has been keeping on being extended, he doesn't work and depends upon his family's source of income but with lockdown, his family is not able to send him money and his landlord has been pressuring to give the rent. Now with no money left, it's even difficult to feed him. Case 4 (farmer) said that his family's income source was farming. With the lockdown whole ready-to-sell vegetables had rotten in the field. Farmers too have felt the impacts of the lockdown. With no proper place for marketing, vegetables worth crores are rotting. Agricultural products being only the source of income for the farmers, this lockdown has led to the decline of income sources for the farmers. All the money invested in agriculture with the hope of gaining profit has just been in vain which has increased more stress in the lives of farmers.

f) Long Walk and Footpath Life

Thousands of Nepali people were working in urban areas of Nepal and the neighboring country of India. They have been trying to return only to born place. But there were no vehicles for transportation and the border was closed. Those people who have been compelled to walk barefoot to reach their home and those who couldn't walk way back home had no other option than to sleep on the footpath. Case 14 (daily wager) said it has been 40 years since he came to Kathmandu and started carrying heavy loads but it has never been this much difficult to survive before. He said he didn't have anything to eat the day before but today he was provided with beaten rice. With lockdown, there is no way he can work so he along with other daily wagers has no other option than to sleep on the footpath.

© 2024 Global Journals

g) Awaiting Relief Package Livelihood

The lockdown has endangered numerous lives, particularly those of vulnerable individuals who rely on daily earnings for sustenance, living hand-to-mouth. The implementation of relief packages for the impoverished indicated governmental support. However, reports emerged of financially secure individuals accessing these packages, while many genuinely needy individuals still awaited assistance. It is disheartening to discover that some people exploit opportunities for personal gain at the expense of others. For instance, Case 2 (an elderly widow) recounted being denied relief despite meeting the requirements, while younger individuals from seemingly affluent backgrounds were granted assistance.

h) Crisis and Crimes on the Rise

A crisis is characterized by pronounced emotional upset, compromised social functioning, and concurrent feelings of confusion, anxiety, depression, and anger (Halpern, 1973;). Amidst the lockdown, our study unveils that various entities have sought to exploit the situation for profit. The distribution of spoiled rice, black-marketing of essential goods, a rise in wildlife poaching, and an escalation in gender-based violence exemplify the heightened rate of criminal activities. Notably, Case 5 (daily wager) from our investigation underscores the increased prevalence of domestic violence during the lockdown.

i) Pressure in Work

Again, the study showcases the immense pressure on front-line workers, such as doctors, nurses, and police, who are working relentlessly in infected areas. Images of exhausted police officers sleeping on the ground signify their strenuous schedules. Additionally, with the advent of remote work, our study uncovers that many individuals are facing pressure to remain online and productive, despite challenges such as internet connectivity and health concerns. Cases 8 and 9 (company staff) in our study exemplify the mental strain and financial pressures experienced by employees due to the work-from-home trend.

j) Life as Usual

The study further exposes the pandemic's profound impact on daily lives, with individuals grappling with disruptions, stigmatization, and persistent infection fears. Illustratively, Case 11 (home quarantined person) sheds light on the stigma and isolation confronting those suspected of being infected, spotlighting the ostracization and confinement experienced by such individuals and their families. Likewise, narratives from Case 10 (student) and Case 13 (housewife) underline the pervasive anxiety and heightened precautionary measures adopted amidst escalating cases. These cases illuminate the widespread fear of infection, stringent hygiene practices, and resultant alterations in daily routines, highlighting the prevailing uncertainty about a return to normalcy. Therefore, as each day unfolds with increasing cases and expanding stigma towards infected individuals and healthcare workers, the study raises a pivotal question: When will life return to some semblance of normalcy? Post-lockdown, will individuals be able to resume work, engage in crowds, and send children to school, all without a residual fear of infection?

VI. Discussion of Findings

The findings derived from various case studies offer an intricate depiction of the multifaceted repercussions of the pandemic and associated lockdown measures on different segments of the Nepali population. The ramifications have been extensive, affecting daily wagers, students, farmers, frontline workers, and home-quarantined individuals, touching upon economic uncertainty, health concerns, societal behaviour, and disruptions to routine. One pivotal revelation is the acute stress and economic hardship endured by the working class, particularly those reliant on daily income. The halt in construction, deterioration of agricultural produce, and depletion of income sources depict an acute distress that highlights not only the immediate challenges of sustenance but also sheds light on long-term livelihood and financial stability implications. The intricate depiction of the multifaceted repercussions of the pandemic, as shown in the findings, corroborates the observations made by (Coser, 1996; Gautam, 2020; Ijomah et al., 2007; Neuman, 2007; Cooper & Green, 2016), who highlighted the profound impacts on economic stability and societal behaviour. The acute distress experienced by the working class aligns with the studies conducted by Eneyo et al. (2022) and Selby & Kagawa (2020), wherein the implications of a halted economy and its long-term effects on livelihood were significantly discussed.

A particularly poignant account emerges from the thousands of Nepali workers, including daily wagers, stranded due to closed borders and a lack of transportation. The stark imagery of individuals walking barefoot and sleeping on footpaths encapsulates the desperation and helplessness experienced by many. The study also unearths the challenges associated with the distribution of relief packages, revealing disparities and potential injustices in aid allocation. The narrative of an elderly widow, contrasted with financially stable individuals receiving aid, exemplifies the systemic gaps in relief measures implementation, prompting critical reflection on accountability and the ethical dimensions of resource distribution in crisis times.

Furthermore, the study exposes the darker aspects of human behaviors during crises, revealing an uptick in criminal activities and exploitation. The increase in gender-based violence, black-marketing, wildlife

© 2024 Global Journals

poaching, and the distribution of substandard essentials underscore the opportunistic tendencies exhibited by some societal sectors, including those wielding power. This finding accentuates the need for targeted interventions and support for vulnerable populations. Healthcare workers, police personnel, and other essential service providers are depicted bearing immense pressure, exemplifying the physical and mental toll of their relentless duty. Additionally, the shift to remote work presents a unique set of challenges, with company staff grappling with reduced salaries, connectivity issues, and maintaining productivity, contributing to overall mental pressure.

The findings also highlight the stigma and fear surrounding the virus, resulting in the ostracism of suspected individuals and their families, as well as heightened anxiety and precautionary measures adopted by the general public. These findings underscore the societal impact of the pandemic, prompting questions about its long-term psychological and social effects on community dynamics and interpersonal relationships. Interestingly, these findings are consistent with existing literature, emphasizing the multifaceted impacts of a pandemic. The economic hardships, stress, societal changes, disparities in aid distribution, and increased criminal activities mirror the findings of scholars such as Moseley (1998), Chaudhary & Mishra (2023). Gautam (2020), Halpern (1973), and Callahan (1998), further contributing to our understanding of human behavior and systemic challenges during crises.

Nevertheless, certain aspects diverge from specific existing studies, providing nuanced viewpoints that may challenge prevailing narratives concerning societal responses and the welfare of essential workers during crises as depicted in other scholarly literature. The insights gleaned from this study enrich our comprehension of the human experience in times of crisis, prompting contemplation on broader societal, ethical, and policy considerations. The convergence and divergences with existing research provide a valuable groundwork for informed dialogues, policy development, and future research initiatives as we navigate the path to recovery and the restoration of normalcy.

VII. Conclusion

This study firmly concludes that the COVID-19 lockdown has profoundly disrupted the livelihoods of the Nepali population, placing them into various levels of hardship and privilege. Significantly, while some have perceived the period akin to a festive occasion, others have suffered from severe deprivation, enduring long journeys on foot, hunger, and feelings of helplessness. This stratification does not solely align with the theoretical frameworks proposed by Karl Marx and Max Weber, suggesting that factors such as ruling class, economy, and status are not the exclusive determinants of social stratification. The pandemic and its associated measures have introduced an additional layer, further diversifying the stratification of livelihoods, especially within the context of Nepal during the lockdown.

It is evident that the lockdown has worsened social inequalities between the affluent and less privileged classes, failing to address social divides but rather exacerbating them. The growing disparities highlight the underlying social injustice inherent in lockdown measures, underscoring the urgent necessity for alternative approaches that can narrow the gap between those with resources and those without, especially in anticipation of future pandemics. The continued reliance on lockdowns in response to potential pandemics is likely to perpetuate similar patterns of social stratification and inequality.

Furthermore, the research has revealed the crucial importance of environmental conservation in preventing global pandemics, as the emergence of the coronavirus is linked to environmental alterations. Human activities like rapid urbanization, mining, deforestation, and agriculture encroach upon natural habitats, leading to habitat loss and bringing various species into closer contact with human populations. This proximity, combined with human encroachment into wild areas, serves as a pathway for transmitting infectious diseases from wildlife to humans, resulting in zoonotic diseases with pandemic potential.

In the Global South, the correlation between environmental degradation and the occurrence of pandemics is especially notable, exacerbated by the displacement of millions annually due to climate-induced natural disasters. The emergence of COVID-19 has highlighted the environmental origins of such viruses and emphasized the urgent need for ecosystem and environmental preservation as a proactive measure to prevent similar global crises. While addressing the immediate economic impacts of the pandemic is crucial, it is equally imperative to concurrently focus on developing strategies to monitor, predict, and prevent future pandemics by comprehensively understanding global movements of people and goods.

The comparison and divergence of our findings with existing literature have played a crucial role in providing a nuanced understanding of the pandemic's complexities. This has not only enhanced our comprehension but also highlighted areas where our study offers fresh insights or challenges prevailing perspectives, thus setting the stage for future research and discourse. Consequently, based on these findings, it is recommended that governments, communities, and international organizations prioritize environmental conservation and embrace sustainable practices to reduce the risk of future pandemics. Recognizing the interconnectedness of environmental health and human

© 2024 Global Journals

well-being should serve as the foundation for policymaking and implementation. Moreover, efforts should be intensified to address social inequalities and ensure fair distribution of resources, particularly during crises, to prevent the perpetuation of disparities. Alternative approaches to lockdowns should be explored and assessed, taking into account their diverse impacts on different segments of the population. Furthermore, a global collaborative approach, emphasizing shared responsibility and cooperation, is essential for tackling the multifaceted challenges posed by pandemics and for building a resilient, fairer world.

VIII. Implication

This research will be supportive to develop lockdown policies for various levels of government to effectively manage future pandemic situations in diverse sociocultural structures based on livelihood. It will serve as a valuable resource for agencies responsible for implementing pandemic-related policies and providing assistance to the community's vulnerable individuals.

References Références Referencias

1. Adhikari, S. R. (2020). Vedic Aryan society and pattern of production system. *Paramita: Historical Studies Journal,* 30(2), 228-235. http://dx.doi.org/10.15294/paramita. v30i2.24349
2. Adhikari, S.R., Adhikari, B.S., Acharya, G. Dahal, S., Adhikari, B., Sharma, T. (2024). Glimpse of Ancient Social History through the Social Structure of e Mahabharata Period. *Paramita: Historical Studies Journal,* 34(1), 43-54. http://dx.doi.org/10.15294/paramita. v34i1.47901.
3. Andam, K., Edeh, H., Oboh, V., Pauw, K., & Thurlow, J. (2020). Impacts of COVID-19 on food systems and poverty in Nigeria. In *Advances in food security and sustainability* (Vol. 5, pp. 145-173). Elsevier.
4. Anderson, I. (2020). It is time for nature: World Environment Day 2020. *Available at: www. unenvi ronm ent. org/ news-and-stor ies/ spe ech/ it-time-nat ure-world-envi ronm ent-day-2020*.
5. Attah, F. M., Agba, A. M. O., & Nkpoyen, F. (2013). Carnival fiesta and socio-economic development of Calabar Metropolis, Nigeria. *International Journal of Humanities and Social Science Invention*, *2*(6), 33-41.
6. Australian Medical Association (AMA). (2017). Australian National Centre for Disease Control (CDC): AMA Position Statement. *Canberra (AUST): AMA*, 4 January 2017, online
7. Awofeso, O., & Irabor, P. A. (2020). Assessment of government response to socioeconomic impact of COVID-19 pandemic in Nigeria. *Journal of Social and Political Sciences*, *3*(3).
8. Bayram, A. B., & Shields, T. (2021). Who Trusts the WHO? Heuristics and Americans' Trust in the World Health Organization During the COVID-19 Pandemic. *Social Science Quarterly*, *102*(5), 2312-2330.
9. Beach, B., Clay, K., & Saavedra, M. (2022). The 1918 influenza pandemic and its lessons for COVID-19. *Journal of Economic Literature*, *60*(1), 41-84.
10. Buheji, M., da Costa Cunha, K., Beka, G., Mavric, B., De Souza, Y. L., da Costa Silva, S. S., Hanafi, M. & Yein, T. C. (2020). The extent of covid-19 pandemic socio-economic impact on global poverty. a global integrative multidisciplinary review. *American Journal of Economics*, *10*(4), 213-224.
11. Callahan, J. (1998). Crisis theory and crisis intervention in emergencies. *Emergencies in mental health practice: Evaluation and management*, 22-40.
12. Carmody, P., McCann, G., Colleran, C., & O'Halloran, C. (2020). *Covid-19 in the Global South: impacts and responses* (p. 219). Bristol University Press.
13. Chaudhary, A. K., & Mishra, K. (2023). Impact Assessment of COVID-19 on Remittance Inflow; A Systematic Review in Case of Nepal. *A Systematic Review in Case of Nepal (July 19, 2023)*.
14. Cooper, A., & Green, C. (2016). Embracing the complexities of 'big data'in archaeology: the case of the English Landscape and Identities Project. *Journal of Archaeological Method and Theory*, *23*, 271-304.
15. Coser, L. A. (1996). *Masters of Sociological Thought*. New Delhi: Rawat Publications.
16. Coyne, J., & Jennings, P. (2020). After Covid-19: Australia and the World Rebuild (Volume 1).
17. Davis, K., & Moore, W. E. (2017). Some principles of stratification. In *Kingsley Davis* (pp. 221-231). Routledge.
18. Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage handbook of qualitative research*. sage.
19. Douglas, K. M., Sutton, R. M., & Cichocka, A. (2017). The psychology of conspiracy theories. *Current directions in psychological science*, *26*(6), 538-542.
20. Elkington, L. J., & Hughes, D. C. (2017). Australian Institute of Sport and Australian Medical Association position statement on concussion in sport. *Medical journal of Australia*, *206*(1), 46-50.
21. Eneyo, V. B., Oba, D. O., Ochiche, C. A., Essien, D. A., & Antai, A. S. (2021). Economic impacts of curfew imposition on the nightclub industry in Calabar Metropolis, Nigeria. *African Journal of Hospitality, Tourism and Leisure*, *10*(3), 955-971.
22. Gautam, D. (2020). The COVID-19 Crisis in Nepal: Coping Crackdown Challenges Key Initiatives and Measures to Move Forward. Retrieved from https://www.dpnet.org.np/uploads/files/The%20COVID-19

© 2024 Global Journals

%20Crisis%20in%20Nepal_Coping%20Crackdown%20Challenges%202020-04-24%2007-51-31.pdf
23. Halpern, H. A. (1973). Crisis theory: A definitional study. *Community Mental Health Journal*, *9*, 342-349.
24. Hickok, K. (2020). March 13). What is a pandemic? Reference article: Definition and examples of a pandemic. Retrieved from https://www.livescience.com/pandemic.html
25. Ijomah, W. L., McMahon, C. A., Hammond, G. P., & Newman, S. T. (2007). Development of robust design-for-remanufacturing guidelines to further the aims of sustainable development. *International Journal of Production Research*, *45*(18-19), 4513-4536.
26. Ionescu, C., Iordache, M., & Ţiţan, E. (2021). The impact of digitization on economy in the context of the Coronavirus pandemic. In *SHS Web of Conferences* (Vol. 92, p. 01018). EDP Sciences.
27. Jaspal, R., Assi, M., & Maatouk, I. (2020). Potential impact of the COVID-19 pandemic on mental health outcomes in societies with economic and political instability: case of Lebanon. *Mental Health Review Journal*, *25*(3), 215-219.
28. Marx, K., & Engels, F. (1848). 1969. Manifesto of the communist party. *Marx/Engels Selected Works*, *1*, 98-137.
29. Mishra, N. P., Das, S. S., Yadav, S., Khan, W., Afzal, M., Alarifi, A., Ansari, M. T., Hasnain, M. S., & Nayak, A. K. (2020). Global impacts of pre-and post-COVID-19 pandemic: Focus on socio-economic consequences. *Sensors International*, *1*, 100042.
30. Morens, D. M., Folkers, G. K., & Fauci, A. S. (2009). What is a pandemic?. *The Journal of infectious diseases*, *200*(7), 1018-1021.
31. Moseley, P. G. (1998). *Stress reduction for family members of emergency room patients*. University of Georgia.
32. Murray, E. J. (2020). Epidemiology's time of need: COVID-19 calls for epidemic-related economics. *Journal of Economic Perspectives*, *34*(4), 105-120.
33. Neuman, L. W. (2007). *Social research methods, 6/E*. Pearson Education India.
34. Obi, S. E., Yunusa, T., Ezeogueri-Oyewole, A. N., Sekpe, S. S., Egwemi, E., & Isiaka, A. S. (2020). The socio-economic impact of covid-19 on the economic activities of selected states in Nigeria. *Indonesian Journal of Social and Environmental Issues (IJSEI)*, *1*(2), 39-47.
35. Pears, E., & Sydnor, E. (2022). COVID-19 and the Culture of American Federalism. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, *8*(8), 181-220.
36. Ritzer, G. (2017). Developing insights into contemporary con (pro) sumer culture based on classical ideas in social theory. *Journal of Historical Research in Marketing*, *9*(1), 34-40.
37. Ritzer, G. (2000). *Classical Sociological Theory*. USA: MacGraw Hill Higher Education.
38. Rodela, T. T., Tasnim, S., Mazumder, H., Faizah, F., Sultana, A., & Hossain, M. M. (2020). Economic impacts of coronavirus disease (COVID-19) in developing countries, 1-7
39. Rowley, J., Richards, N., Carduff, E., & Gott, M. (2021). The impact of poverty and deprivation at the end of life: a critical review. *Palliative Care and social practice*, *15*, 26323524211033873.
40. Selby, D., & Kagawa, F. (2020). Climate change and coronavirus: A confluence of crises as learning moment. In *COVID-19 in the Global South* (pp. 17-28). Bristol University Press. Stable URL: https://www.jstor.org/stable/j.ctv18gfz7c.9
41. Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of medical internet research*, *22*(9), e21279.
42. Triandafyllidou, A. (2022). *Spaces of solidarity and spaces of exception: Migration and membership during pandemic times* (pp. 3-21). Springer International Publishing.
43. Tumin, M. M. (1953). Some principles of stratification: A critical analysis. *American Sociological Review*, *18*(4), 387-394.
44. Turner, J. H., & Turner, P. R. (1978). *The structure of sociological theory* (p. 446). Homewood, IL: Dorsey Press.
45. Van Prooijen, J. W., & Van Lange, P. A. (2014). *Power, politics, and paranoia: Why people are suspicious of their leaders*. Cambridge University Press.
46. Walzer, C. (2020). The COVID-19 pandemic has introduced us to a new word: zoonosis. *Wildlife Conservation*, *1*. Available at: www.livescience.com/dangers-of-zoonoses-pandemics.html
47. World Health Organization. (2019). *Taking a multisectoral one health approach: a tripartite guide to addressing zoonotic diseases in countries*. Food & Agriculture Org.
48. World Health Organization. (2022). *Multisectoral coordination mechanisms operational tool: an operational tool of the Tripartite zoonoses guide*. Food & Agriculture Org.
49. Zeeshan, M., Sultana, A., & Anzak, S. (2020). COVID-19 pandemic: implications of public health emergency on migration and repatriation in Pakistan. *Global Regional Review*, *2*, 20-29.

© 2024 Global Journals

This page is intentionally left blank

© 2024 Global Journals

Global Journal of human-social science: H Interdisciplinary
Volume 24 Issue 4 Version 1.0 Year 2024
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Refugee Housing Accessibility with a Strategic Digital City Project

By Nour Allah Al Lahham, Denis Alcides Rezende & Giovana Goretti Feijó Almeida

Pontifícia Universidade Católica do Paraná (PUCPR)

Abstract- Adequate housing is pivotal for the refugee's well-being, demanding strategic urban management to facilitate their integration. The research objective is to analyze housing access for adult refugees within the context of a strategic digital city, focusing on adult refugees and city strategies as a subproject of the strategic digital city project. The research methodology adopted is a case study in Curitiba, the research employs both qualitative and quantitative techniques, guided by a research protocol. Results suggest that addressing housing access challenges entails more than mere provision; it involves safeguarding rights, stability, integration, and participation in public policies and municipal strategies within the strategic digital city framework and the right to the city. These findings underscore the necessity for support services and robust collaboration among diverse stakeholders and public policies to tackle the multifaceted refugee issue, thereby fostering their integration and well-being in the host society. The conclusion emphasizes prioritizing concepts such as privacy and dignity in housing, highlighting the urgent need for effective policies catering to refugees' diverse needs.

Keywords: refugees housing, city right, political science, social science, international immigration, human integration, strategic digital city, urban management.

GJHSS-H Classification: LCC: JV6347, HT169.57.B7



Strictly as per the compliance and regulations of:

© 2024. Nour Allah Al Lahham, Denis Alcides Rezende & Giovana Goretti Feijó Almeida. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

Refugee Housing Accessibility with a Strategic Digital City Project

Nour Allah Al Lahham [α], Denis Alcides Rezende [σ] & Giovana Goretti Feijó Almeida [ρ]

Abstract- Adequate housing is pivotal for the refugee's well-being, demanding strategic urban management to facilitate their integration. The research objective is to analyze housing access for adult refugees within the context of a strategic digital city, focusing on adult refugees and city strategies as a subproject of the strategic digital city project. The research methodology adopted is a case study in Curitiba, the research employs both qualitative and quantitative techniques, guided by a research protocol. Results suggest that addressing housing access challenges entails more than mere provision; it involves safeguarding rights, stability, integration, and participation in public policies and municipal strategies within the strategic digital city framework and the right to the city. These findings underscore the necessity for support services and robust collaboration among diverse stakeholders and public policies to tackle the multifaceted refugee issue, thereby fostering their integration and well-being in the host society. The conclusion emphasizes prioritizing concepts such as privacy and dignity in housing, highlighting the urgent need for effective policies catering to refugees' diverse needs. Beyond economic and housing hurdles, refugees encounter prejudice, xenophobia, and inequalities, requiring not only governmental and NGO interventions but also active societal engagement. To promote integration, it is imperative to reevaluate housing costs, ensure service accessibility, and involve refugees in decision-making processes to formulate tailored policies, acknowledging their experiences as valuable contributions to society.

Keywords: refugees housing, city right, political science, social science, international immigration, human integration, strategic digital city, urban management.

I. Introduction

As the urban population rise, urban planning becomes essential to ensure adequate public service delivery and equitable housing access for refugees (Santos, 2014; Lencioni, 2020; Villié, 2021; Schmidt, Jacobsen & Krieger, 2020; Silva & Fernandes 2017). Meanwhile, as cities undergo a rapid urbanization process, disparities emerge across various domains, including housing, income, amenities, and infrastructure, posing unique challenges for refugees seeking shelter. This demands an approach to urban governance (Jacobs, 2011; Lacerda, 2000; Lencioni, 2020; Rolnik, 2015; Romanelli & Abiko, 2011; Tavares, 2022). Real estate expansion has significantly changed the urban landscape, leading to both increases and decreases in the value of certain areas. This, in turn, affects the availability and affordability of housing options for vulnerable populations, especially refugees (Lencioni, 2020; Romanelli & Abiko, 2011; Tavares, 2022).

Immigration trends pose a global issue that extends beyond specific regions like Brazil or Europe, encompassing a broader international context. Typically, refugee communities in big capital cities tend to accommodate in disadvantaged areas with limited access to essential services and infrastructure due to low costs and availability (Andrade & Breviglieri, 2016; Duarte & Carvalho, 2021; Kraljević, 2020; Schmidt, Jacobsen & Krieger, 2020; Villié, 2021; Watol & Assefa, 2018). Ensuring dignified housing for refugees is a matter of human rights, highlighting the need for urban policies and interventions that prioritize the housing needs of vulnerable populations (Christofi & Georgiadou, 2023; Pulitano, 2022; UNICEF, 2022; Violin & Spinicci, 2018).

The research problems are demonstrated through the rapid urbanization in Brazilian cities over the last four decades, which has resulted in a housing shortage and limited access to essential urban services (Vitte, 2010; Oliveira, Miguez, 2016). Despite governmental efforts, Brazilian cities still face issues like sanitation and social inequalities, while marginalized communities still struggle to access central urban areas with vital infrastructure (Jacobs, 2011; Mello, 2020). Furthermore, refugees face difficulties accessing suitable housing and essential services because of language barriers, discrimination, and limited recognition of qualifications, which further complicate their integration, leading to social exclusion (Christofi & Georgiadou, 2023; Solano & Huddleston, 2020; UNHCR, 2023; UNHABITAT, 2023; Villié, 2021).

These systemic issues underscore the urgent need for comprehensive strategies to address the housing crisis and promote inclusive urban development, especially for vulnerable groups like refugees (Brady, Chaskin & Mcgregor, 2020; Fagundes & Augusto, 2022; Mitchell, 2020; Pacífico & Silva, 2019; Silva & Fernandes 2017). While strategic digital cities

Author α: Master and Ph.D Student in Urban Management. Pontifícia Universidade Católica do Paraná (PUCPR). Curitiba. Paraná. Brazil. e-mail: nourlahham27@gmail.com
ORCID: https://orcid.org/0009-0006-8082-3091
Author σ: Ph.D and Post-Doctor in Strategic Digital City from DePaul University. Researcher at the Pontifícia Universidade Católica do Paraná (PUCPR). Curitiba. Paraná. Brazil. e-mail: denis.rezende@pucpr.br, ORCID: https://orcid.org/0000-0002-3327-0424
Author ρ: Ph.D in Regional Development. CiTUR - Polytechnic University of Leiria. Leira. Portugal. e-mail: goretti.giovana@gmail.com
ORCID: https://orcid.org/0000-0003-0956-1341

© 2024 Global Journals

are increasingly vital for access to information and to address territorial inequalities, challenges persist in developing planning frameworks (Rezende, 2023; Rezende & Procopiuck, 2018). Therefore, integration efforts for refugees encounter difficulties from social adaptation to xenophobia, often leading to short-term strategies that may undermine state efficiency in addressing complex refugee-related challenges (Christofi & Georgiadou, 2023; Fagundes & Augusto, 2022; Watol & Assefa, 2018).

The research question is about discovering the relations between refugee housing accessibility and city strategies.

The research objective is to analyze housing access for adult refugees and their relations with city strategies as a subproject within the strategic digital city project, particularly within the urban governance context.

The justification for this research is the importance of collaborative planning between the public sector, private sector, and government (Jovičić & Petković, 2020; Romanelli & Abiko, 2011; Souza, 2002). Collaborative efforts are needed for comprehensive refugee inclusion (UNHCR, 2023). However, urban peripheries in Brazil reflect social segregation and highlight systemic issues in urbanization (Jacobs, 2011; Vitte, 2010). This underscores the importance of social integration and optimal land use for community harmony. (Oliveira & Pedlowski, 2013; Mendonça, 2006). Refugee integration depends on social acceptance and policy support (Christofi & Georgiadou, 2023; Duarte & Carvalho, 2021; Solano & Huddleston, 2020).

Strategic digital cities are essential for enhancing citizens' life quality and bolstering cities' competitive edge, facilitating social, commercial, and industrial relations (Rezende, 2012, 2023). They combine collective goals with digital and informational technologies, raising infrastructure standards to support commercial and industrial activities, as well as service provision (Rezende & Procopiuck, 2018). Incorporating information technology planning into city governance, including e-government initiatives, complements efficient municipal management, requiring integration of administrative concepts and approaches into public governance models (Ultramari & Rezende, 2006; Flores & Rezende, 2018, 2022; Fumagalli, Rezende & Guimarães, 2021, 2022; Teixeira & Rezende, 2023). Urban strategies must meet population demands and develop technology-based public services, highlighting the critical role of IT in modern city governance (Almeida & Rezende, 2021; Brady, Chaskin & Mcgregor, 2020; Lee, 2023; Mitchell, 2020; Roberts & Edwards, 2023). Implementation transcends the strategy's immediate decision-making role, serving as a reference point for local authorities in community development management, ensuring service quality, investment plans, action legitimacy, and environmental conditions consideration. Thus, the strategy assumes a genuinely strategic and creative role for local self-government authorities, distinguishing them from mere efficient administrators (Brady, Chaskin & Mcgregor, 2020; Lee, 2023; Mitchell, 2020; Roberts & Edwards, 2023; Trutkowski, Odzimek & Zarkowsk, 2022).

II. Literature Review

a) *Dwelling Access Rights*

The concept of housing rights encompasses a wide range of elements essential for human well-being. It includes tangible aspects like privacy, intimacy, and dignity, as well as broader considerations such as environmental quality (Violin J, Spinicci, 2018). On the other hand, the right to habitation carries a more transient essence, emphasizing factors like security, predictability, and legal certainty, which are pivotal for maintaining stability within relationships and communities. While housing provides a protected space, the right to habitation ensures continuity and stability (Tavares, 2022; Violin J, Spinicci, 2018). Moreover, the right to adequate housing goes beyond mere shelter provision. It includes ensuring secure tenure, equal access to housing, and facilitating participation in housing-related decision-making processes. Essential services like clean water, energy, and sanitation facilities are integral to this right, emphasizing its interconnectedness with various facets of life, including employment, health, and education (UN-HABITAT, 2009).

The satisfaction derived from housing extends beyond the physical structure itself. It encompasses social adequacy, comfort, security, health, and other factors like community integration and adaptation to geographical and cultural contexts. The housing quality is not confined to the dwelling unit alone but extends to its surroundings, emphasizing the importance of a holistic approach to housing provision (El-Kayed & Hamann, 2018; Salcedo, 2020). When individuals face vulnerability or displacement, public shelters serve as a vital form of temporary housing, providing essential assistance and support (Mello, 2020; UNHCR, 2023; Salcedo, 2020). These shelters play a crucial role in ensuring the safety and well-being of those in need, underlining the societal responsibility toward addressing homelessness and housing insecurity.

b) *Refugees*

The term *refugee* encapsulates individuals who, due to events predating January 1, 1951, harbor a well-founded fear of persecution based on race, religion, nationality, membership in a particular social group, or political opinions. These individuals find themselves outside their country of origin, without its protection, either due to incapacity or choice. It's essential to note that for individuals with multiple nationalities, each country of nationality is considered when determining

© 2024 Global Journals

their refugee status. However, those who opt not to seek protection from their national countries without valid and justified reasons are not deemed deprived of their country-of-origin protection (Carbonari & Librelotto, 2020; UNCHR, 1951, 1984; Villié, 2021; Schmidt, Jacobsen & Krieger).

The definition of refugees extends to include individuals who have fled their countries due to imminent threats to their life, safety, or freedom. Stemming from widespread violence, foreign aggression, internal conflicts, massive human rights violations, or other circumstances significantly disrupting public order (UNHCR, 1951).

In Brazil, addressing refugee issues is bolstered by specific legislation, notably Law 9,474/1997 (UNCHR, 1984). This legislation supplements the 1951 Convention, delineating which migrants will be recognized as refugees, outlining the asylum application process, and delineating various types of valid authorizations within the country (BRASIL, 1997). Recognizing that migration stems from diverse reasons and circumstances beyond persecution, the National Immigration Council introduced Resolution No. 126/2017, which grants the right to temporary residence. This resolution serves to regulate the new Immigration Law, superseding the outdated Foreigner Statute and prioritizing human rights, particularly for vulnerable populations such as Venezuelans and other refugees (Andrade & Ramina, 2013; Carbonari & Librelotto, 2020; UNCHR, 1951, 1984; Villié, 2021; Watol & Assefa, 2018).

c) City Living Rights

The concept of the right to the city transcends mere physical presence within urban landscapes; it embodies the fundamental right of individuals and social groups to actively engage in the construction and management of the urban environment, thereby shaping its priorities and future trajectories (Lefebvre, 2009). At its core, this right signifies that citizens possess the agency to have a meaningful voice in decisions that impact their lives and communities, extending beyond mere residency to encompass a spectrum of political, social, and cultural rights, including but not limited to housing, mobility, artistic expression, and democratic participation (Lefebvre, 2009).

Moreover, the right to the city entails more than just access to urban amenities and resources; it encompasses the prerogative to transform the city, following the desires and needs of its inhabitants, thereby fostering a sense of ownership and belonging (Harvey, 2013).

Nevertheless, realizing citizenship is an evolving process, manifested through concrete rights over time. This evolution is exemplified in Brazilian migration policy, which endeavors to provide opportunities for participation and influence in political decisions for refugees and migrants, thereby acknowledging their status as active members of society (Santos, 2014).

Consequently, ensuring adequate reception for refugees within urban centers necessitates guaranteeing their full entitlement to urban spaces while actively participating in community life. This approach not only fosters inclusivity but also contributes to the cultivation of a democratic cityscape where refugees collaborate alongside other residents in shaping an inclusive and dynamic urban fabric (Carneiro & Oliveira, 2022; Solano & Huddleston, 2020; Villié, 2021). In essence, the right to the city embodies the collective endeavor to create urban environments that honor the dignity and agency of all inhabitants, irrespective of their backgrounds or origins.

d) Urban Management

Urban management encompasses far merely than mere physical and territorial planning; it extends its purview to include the provision of infrastructure and social services, reflecting the intricate web of social, political, and economic dynamics inherent within urban landscapes (Silva & Procopiuck, 2019). This multifaceted approach to management involves a diverse array of stakeholders from the public, private, and civil society sectors, recognizing the collaborative effort required to address the complex challenges facing modern cities (Silva & Procopiuck, 2019; Frey, 2002).

At its core, urban management strives for the equitable distribution of urban benefits and the enhancement of quality of life for all residents, irrespective of socioeconomic status or background (Lima, Lopes & Façanha, 2019). It recognizes that the vitality of a city is not solely determined by its physical structures but also by the intricate social, political, and economic relationships that shape its fabric, necessitating a nuanced and adaptive approach to mediation and governance (Ivanóski & Carvalho, 2023).

In this context, cities evolve by implementing public policies and strategic projects that foster sustainable urban development and improve the well-being of their inhabitants (Almeida & Rezende, 2021). Strategic thinking is pivotal in urban management, guiding decision-making processes and ensuring that urban issues are addressed through effective and coordinated measures (Campos, 2016; Ivanóski & Carvalho, 2023; Salvi et al., 2016). By adopting a proactive and holistic approach, urban management endeavors to tackle the myriad challenges facing cities, from infrastructure deficits to social inequality, ultimately striving to create inclusive and resilient urban environments (Oliveira et al., 2023).

e) Strategic Digital City

The concept of the strategic digital city, created by Rezende (2012) represents a shift in urban management paradigms, leveraging information

© 2024 Global Journals

technology not just to manage city operations, but also to deliver customized information and services to citizens in line with urban strategies. Unlike traditional approaches focused solely on internet provision, the strategic digital city adopts a more comprehensive perspective rooted in city-wide strategy to achieve diverse city objectives (Rezende, 2023).

For successful implementation, the strategic digital city necessitates the development of robust projects encompassing critical dimensions: city strategic planning, city information planning, public services planning, and city information technology planning, involving collaboration between the city hall and public organizations. At the core of this framework are information models depicting various city functions or themes. These models serve as foundational elements for planning city information systems and knowledge systems, while also influencing the human resource profiles needed to operate them (Rezende, 2023). City themes encompass the major activities crucial for the integrated and efficient functioning of all cities. Each theme consists of various modules or subsystems referred to as city subjects (Rezende, 2023). The strategic digital city is organized into four subprojects: urban strategies, city information, city public services, and information technology resources, collectively constituting a comprehensive public policy for urban management and planning (Rezende & Procopiuck, 2018; Rezende, 2023).

Furthermore, the strategic digital city is deeply embedded within various urban themes, underscoring its role as a consolidated urban model that has shaped urban development for over a decade (Flores & Rezende, 2018, 2022; Fumagalli, Rezende & Guimarães, 2021, 2022; Ribeiro, Rezende & Yao, 2019; Teixeira & Rezende, 2023). As such, it represents a dynamic and forward-thinking approach to urban governance, leveraging digital technologies to enhance the efficiency, transparency, and inclusivity of city operations while empowering citizens to actively participate in shaping the future of their communities (Almeida & Rezende, 2021; Teixeira & Rezende, 2023).

f) City Strategies

City strategies serve as indispensable tools for local administrations to achieve their objectives and are integral to the development of city strategic planning, playing a pivotal role in effective city management (Ahvenniemi & Huovila, 2021; Rezende, 2023). Emerging from the complexities of globalization, the constant evolution of contemporary cities, and the challenges posed by urban population growth, these strategies encompass specific policies aimed at enhancing citizens' quality of life through the reorganization and restructuring of urban spaces (Ahvenniemi & Huovila, 2021; Rezende, 2023).

Beyond merely guiding specific actions, city strategies serve as visionary documents that provide leadership with a sense of direction and purpose, guiding public organizations toward shared goals and aspirations (Ahvenniemi & Huovila, 2021; Campos, 2016; Ivanóski & Carvalho, 2023; Ongaro & Ferlie, 2020). While strategies can be made tangible through planning processes, this is not mandatory, as plans are seen as a consequence of the overarching strategy and are subject to adaptation in pursuit of desired objectives (Ahvenniemi & Huovila, 2021; Campos, 2016; Ivanóski & Carvalho, 2023; Ongaro & Ferlie, 2020). City-level strategies can take two forms: tangible and intangible. The intangible form involves strategic planning, establishing a vision for development, long-term goals, and an action plan to realize these objectives (Roberts & Edwards, 2023; Trutkowski. Odzimek & Zarkowsk, 2022). Crucially, this form of strategy plays a pivotal role in guiding development policies, seeking external funding, promoting integration, and engaging the local community in public discussions and consensus-building processes, thereby fostering learning and collective improvement in local development administration (Trutkowski. Odzimek & Zarkowsk, 2022). When a strategy is formulated, it translates into tangible actions for implementation, often sparking public discussions and engagements to ensure alignment with community needs and aspirations (Mitchell, 2020; Lee, 2023).

Moreover, city strategies can serve as mechanisms for power-sharing, facilitating citizen participation in decision-making processes and fostering a sense of ownership and accountability within local governance structures (Ahvenniemi & Huovila, 2021; Brady, Chaskin & Mcgregor, 2020). In essence, city strategies represent dynamic and inclusive frameworks that not only guide the development of cities but also empower communities to shape their urban futures actively.

g) Conceptual Relations between Refugees' Housing Access and Strategic Digital City

The concepts of dwelling access rights, refugees, city living rights, urban management, strategic digital city, and city strategies are all interconnected in the broader context of creating inclusive, equitable, and sustainable urban environments. Dwelling access rights and city living rights highlight the importance of secure and adequate housing, as well as active participation in urban life. Urban management and city strategies provide the frameworks and processes necessary for achieving these rights, while the strategic digital city enhances these efforts using digital technologies. These concepts together constitute a comprehensive approach to urban development that prioritizes the well-being, dignity, and agency of all residents, with

© 2024 Global Journals

particular attention to vulnerable populations such as refugees. By integrating these elements, cities can foster inclusive communities where everyone has the opportunity to thrive.

Dwelling access rights and refugees are intrinsically connected by providing secure and adequate housing. The concept of dwelling access rights emphasizes the importance of ensuring secure tenure, equal access to housing, and participation in housing-related decision-making processes. Refugees, forced to flee their countries due to persecution or conflict, necessitate secure and stable housing as a fundamental aspect of their resettlement and integration into new communities.

Ensuring that refugees have access to suitable housing is crucial for fulfilling their dwelling access rights, contributing significantly to their overall well-being and stability. On the other hand, the "city living rights" concept underscores the importance of individuals and social groups actively participating in urban environment construction and management. When refugees enjoy the same opportunities as other residents to contribute to and benefit from urban development, it promotes inclusivity and strengthens the city's social fabric. These concepts advocate for a holistic approach to urban living, where housing serves not only as physical shelter but also as a space for active community engagement and democratic participation. Ensuring access to adequate housing is a prerequisite for enabling individuals to exercise their right to the city.

Consequently, urban management plays a pivotal role in realizing dwelling access rights. In addressing these needs, it's essential to provide not only adequate housing but also access to essential services, employment opportunities, and social support systems. Urban management strategies must be inclusive and adaptive, recognizing the diverse backgrounds and needs of refugees.

By incorporating refugee needs into urban planning and policymaking, cities can create environments conducive to the well-being and development of all residents, thereby enhancing social cohesion and stability. The strategic digital city manifests broader city strategies that aim to achieve diverse urban objectives using digital technologies. City strategies provide a vision and direction for urban development, while the strategic digital city operationalizes these strategies by implementing digital solutions. Aligning city information systems and technology resources with strategic planning, cities can enhance their capacity to meet the needs of their residents, foster innovation, and ensure sustainable development. The strategic digital city represents a forward-thinking approach to urban management that supports realizing long-term strategic goals.

III. Research Methodology

The research methodology employs a case study method (Nichols & Edlund, 2023; Yin, 2017), integrating quantitative and qualitative research techniques. Quantitative techniques were used to analyze and measure refugees' population percentage in the city. These techniques were also used to quantify the socioeconomic refugees' profile, such as age, gender, country of origin and education. Quantifying this data helps demonstrates how these factors influence housing conditions for refugees.

The quantitative techniques were also used to quantify data related to city strategies and policies (how many strategies are aimed at refugees and housing access policies). Meanwhile, qualitative techniques were employed to analyze information regarding housing conditions for refugees, theoretical concepts regarding housing and refugees, and how these concepts manifest in reality, as well as city issues such as segregation and unequal urbanization. Additionally, qualitative analysis was conducted to examine the themes of relevant strategies, services, and public policies. Therefore, this compilation of information constitutes the research protocol. (Marconi & Lakatos, 2022).

The research follows 4 phases: the first phase prepares data by creating the literature review, defining the method of research (case study), and creating the research protocol. The second phase collects data from reliable sources about refugees, public policies, and city strategies, these fonts can be non-governmental organizations (united nations), legal documents and legislations, government plans and strategy plans from government official sites and documents. Other data sources are from articles, journals and reports from local and international authors and organizations. The third phase involves analyzing the data by classifying and organizing all the information collected from the previous phases. The analyses are based on the research protocol, where each subconstruct has a variable to be analyzed (using qualitative and quantitative techniques). This phase is completed with a comparative analysis to reach the results and discussion. The fourth and final phase documents data after the proper analysis is made for each variable studied, resulting in the conclusion.

The study case encompasses the city of Curitiba (Nichols & Edlund, 2023) due to its history of integrating immigrants and refugees. However, the city has limited information regarding refugees, which made it a point of focus to be studied.

The observation unit of this research gathers data from documents, books, surveys, articles, and government websites to create a comprehensive database on the refugee situation. The analysis centers

© 2024 Global Journals

on empirical data about refugees in Brazil, with a particular focus on Curitiba's refugee population. Key sources include the United Nations High Commissioner for Refugees (UNHCR), the National Committee for Refugees (CONARE), and various non-governmental organizations supporting refugees. Local sources, such as the State Center for Information on Migrants, Refugees, and Stateless Individuals (CEIM) and the Social Action Foundation (FAS), also provide crucial information about refugees in Curitiba. Furthermore, the research investigates pertinent laws and conventions concerning refugees' right to housing along with public policies and strategies aimed at facilitating their integration, reception, and access to essential services such as infrastructure, health care, and education (Nichols & Edlund, 2023; Yin, 2017).

The research protocol encompasses two constructs (Yin, 2017). The first construct, Housing Access for Refugees, comprises three subconstructs: housing conditions, Refugees in Curitiba, and Right to the City. This construct seeks to enhance understanding of the housing concept and its applicability within Curitiba's urban context. It also aims to analyze refugee categories, their socioeconomic profile, peripheral urbanization categories, and forms of access to the right to the city. This includes examining refugees' experiences in urban settings and their accessibility to public services.

The second construct is the Strategic Digital City project, which encompasses a single subconstruct, City Strategies. This aspect focuses on analyzing the strategy name, city theme, and strategy source.

This research was carried out from February 2022 until April 2024, following the phases and the research protocol.

IV. Research Analyses

a) *Housing Access for Refugees Analyses*

i. *Housing conditions*

The analysis of housing access conditions in Curitiba encompasses a nuanced examination of various terms related to housing, including dwelling, habitation, shelter, and settlements. Each term holds distinct connotations regarding scope and duration, shedding light on the multifaceted dimensions of refugee housing needs. At the core of this analysis is the concept of dwelling, which extends beyond mere physical structures to encompass a broader array of rights, including privacy, intimacy, dignity, and security. This comprehensive understanding highlights the significance of addressing not only the physical aspects of housing but also the fundamental human rights associated with it.

Terms such as habitation, shelter, and settlement emerge from the concept of dwelling, each with its nuances. Habitation expands the scope beyond individual housing units to encompass neighborhoods, cities, infrastructure, services, and strategies tailored to citizens, including refugees.

While shelters represent temporary accommodations for individuals or families, settlements denote more permanent housing complexes, serving as essential lifelines for refugees or those in dire need. Despite their transient nature, habitation, shelter, and settlement remain vital components of refugee housing, prioritizing basic human needs such as privacy and dignity. These concepts are intrinsically linked to surrounding services and infrastructure, underscoring the interconnectedness of housing with broader societal contexts.

While dwelling tends to connote permanence, habitation, shelter, and settlement address more immediate spatial and physical concerns, emphasizing the urgency of meeting refugees' housing needs promptly and effectively. This nuanced understanding is instrumental in informing the development of policies and strategies aimed to safeguard refugees' dignity and well-being.

Essentially, this analysis offers crucial conceptual clarity, nurturing a deeper comprehension of refugee housing categories and the rights and needs associated with them. By shedding light on the inherent complexities of refugee housing, it establishes the basis for formulating more comprehensive and effective interventions to tackle the diverse challenges encountered by displaced populations.

ii. *Refugees' Localization Variable*

Analyzing the refugees' localization variable in Curitiba provides valuable insights into the demographics and living conditions of displaced populations within the city. Predominantly originating from Haiti, Venezuela, Syria, and Cuba, these refugees often arrive in family units, with adult males comprising a significant portion of the population. Their migration patterns frequently lead them to the city center for employment opportunities and essential assistance.

In this context, the Center for Migrants and Refugees (CEIM) plays a crucial role, primarily serving as an informative hub rather than actively engaging in participatory initiatives. Consequently, refugees often navigate housing independently or are directed towards social hotels or the Social Assistance Foundation (FAS) for support. Notably, refugees from similar backgrounds tend to cluster together, fostering communities, with Haitian refugees demonstrating a powerful propensity for communal living.

Despite the influx of refugees, the localization analysis reveals disparities in access to essential services, with neighborhoods outside the city center facing significant challenges. The concentration of vital services in downtown Curitiba poses obstacles for refugees residing in more distant and peripheral areas

© 2024 Global Journals

such as Cajuru, Boqueirão, Xaxim, and the Cidade Industrial de Curitiba (CIC). This spatial mismatch highlights the importance of ensuring that services are accessible and available to refugee communities situated beyond the city center, to adequately meet their basic needs.

Furthermore, the analysis highlights a concerning trend wherein most refugees and migrants are concentrated in urban regions like Curitiba rather than city's outskirts. Paradoxically, the neighborhoods hosting a higher density of refugees are often situated in remote or marginalized areas on the outskirts of the city.

This spread across different geographical areas raises significant concerns about accessing appropriate housing, as well as essential services like education, healthcare, and transportation. Which thereby, worsens security and public health issues for these vulnerable populations.

Therefore, the localization analysis underscores the urgent need for comprehensive policies and interventions aimed to improve the living conditions and well-being of refugees in Curitiba. Addressing spatial disparities in service provision, enhancing community engagement initiatives, and promoting inclusive urban development are essential steps towards ensuring the equitable integration and empowerment of displaced populations within the city.

b) Refugees' Analyses

i. *Refugees' Categories Variable*

The variable of refugee categories delves into the multifaceted distinctions arising from the reasons for displacement, the duration of displacement, and the level of integration into the host society. This differentiation is pivotal in understanding the diverse experiences of refugees and internally displaced persons (IDPs). While refugees flee their countries due to persecution, unable or unwilling to return, IDPs are displaced within the borders of their country of origin.

Refugees can further be categorized based on the duration of their displacement, which may vary from short-term to long-term. Moreover, categorizations are influenced by legislative, regulatory, and documentation factors, including the place of stay. These definitions are shaped by government policies, urban planning strategies, and bureaucratic processes, which impact the rights and access to assistance afforded to different refugee categories.

However, specific refugee categories often face neglect in terms of their rights and access to aid from governmental and humanitarian organizations. Following the conclusion of the events that forced their displacement, refugees may face the prospect of repatriation, yet many continue to endure persecution for years or even decades. In the meantime, refugees start afresh in host countries, building new social and emotional bonds, and sometimes, forming families. These factors render the prospect of returning to their lands of origin fraught with challenges, with profound implications for the refugee communities and the countries that host them.

Thus, the variable of refugee categories underscores the complexities inherent in forced displacement, highlighting the diverse experiences and needs of refugees and IDPs. Recognizing and addressing these distinctions is essential for developing more inclusive and effective policies and interventions to support displaced populations and promote their well-being and integration into host communities.

ii. *Refugee Population Percentage in Curitiba Variable*

The variable of refugee population percentage in Curitiba sheds light on the complexities and challenges associated with collecting accurate and centralized data on displaced populations within the city. Obtaining accurate figures is difficult because of inconsistencies in statistics and information managed by different public entities. Data collection efforts draw from various official sources, including the Curitiba government, OBMigra, the Federal Police, Casa Latino Americana (CASLA), and partnerships with organizations such as the UNHCR and federal universities. Despite these efforts, the information remains fragmented, leading to uncertainties in estimating the accurate scale of the refugee population.

According to data from the Federal Police in 2015, approximately 39.3 thousand foreigners applied for entry visas to Curitiba over the previous 15 years, with 51.3% of them maintaining active records. However, this figure fails to capture the total number of immigrants in the city, as requests can be made at any Federal Police station, and individuals may migrate throughout the country, including those who remain undocumented.

Estimates from CASLA suggest that Curitiba hosts between 15 and 19 thousand immigrants and refugees, while Paraná averages around 60 thousand (as of 2015). Data from the Federal Police indicates a significant increase in refugee numbers arriving in Brazil, Paraná, and Curitiba over the years, with an annual increase of approximately 9 thousand refugees between 2000 and 2015, totaling about 81 thousand in 2015.

Consequently, data collected since 2015 and recent data from 2021 and 2022 highlight Curitiba as one of the top destinations for refugees in Brazil, ranking behind only São Paulo and Boa Vista. In 2021, the city registered around 5 thousand migrants, maintaining its fifth position in 2022, with an average of 400 monthly registrations. Notably, some refugees prefer to cluster in more remote areas to preserve a sense of community.

Despite the increasing influx of refugees and migrants, there remains a lack of accurate and centralized statistics on the refugee population in

© 2024 Global Journals

Curitiba. This underscores the need to improve data collection and recording mechanisms to achieve a more comprehensive and accurate understanding of the refugee demographic in the city. Consequently, addressing this data gap is vital for devising targeted policies and interventions to effectively support and integrate displaced populations into Curitiba's social fabric.

c) Right to the City Analyses

i. *Accessibility to the City Rights*

It is crucial to analyze peripheral urbanization and the right to the city to address housing challenges and understand the inequalities faced by different population segments. Peripheral urbanization, marked by informal settlements and poor planning, restricts access to essential services, highlighting significant societal issues.

The unchecked growth of peripheral urbanization leads to new areas characterized by informality and precarity. The categorization of peripheral urbanization enables the identification of areas where vulnerable populations, including refugees, may face heightened risks. These areas often lack basic infrastructure and essential services, directly impacting the quality of life of refugees and exacerbating their marginalization.

This urban planning approach highlights the challenges faced by low-income communities, affecting their right to suitable housing. These challenges are indicative of wider inequalities within Brazilian society, where low-income groups frequently lack viable housing options. Access to adequate housing and urban services is crucial, as it directly impacts fundamental needs such as food, health, and education for these families. Furthermore, identifying regions with inadequate infrastructure is essential for refugees and vulnerable populations, affecting their quality of life and access to necessary services.

The "right to the city" concept regards urban spaces as socially built environments where all individuals should have the chance to fully engage and participate. Housing should not merely be seen as a shelter but as a means to engage actively in urban life. This right encompasses access to essential services, and public policies must aim for equitable distribution, affordability, and environmental sustainability. Denying individuals proper housing equates to excluding them from the city, leading to social marginalization.

Understanding the dynamics of social segregation is crucial for recognizing the obstacles refugees face in seeking inclusion and equal opportunities within urban environments. By addressing the root causes of peripheral urbanization and implementing inclusive urban development strategies, policymakers can work towards creating more equitable and sustainable cities that afford refugees and marginalized communities' equal access to opportunities.

Thus, analyzing peripheral urbanization and the right to the city underscores the urgent need for policies that ensure affordable housing. Ensuring active participation in urban planning is essential, as is participating in housing policies' decisions. Dignified housing transcends the idea of mere shelter; it embodies a commitment to human dignity, family stability, social cohesion, and urban inclusion, from accessing their rights, particularly regarding housing accessibility and essential services within metropolitan areas.

d) Strategic Digital City Analyses

i. *City Strategies Aimed for Refugees Variable*

Three strategies were identified, one from the state plan and two from UNHCR in collaboration with the Brazilian government, plus three specific strategies related to education and processing of asylum requests. The first strategy refers to the *Second State Plan for public policies for migrants* (Brazil, 2022), refugees, and stateless persons in Paraná, aiming to guarantee access to fundamental rights for this population. Developed in partnership with civil society organizations, it covers different axes such as education, health, justice, work, and human rights, implementing public policies that promote and defend human rights in the state.

The second identified strategy is the *Livelihood Strategy* (UNHCR, 2019) implemented by UNHCR from 2019 to 2021, supporting low-income refugees, asylum seekers, and Venezuelans with different educational and professional backgrounds, integrating them into public and private services and programs, especially in socio-economic and employment initiatives. The UNHCR partners with the Brazilian government to create specific programs aimed at improving livelihoods, expanding opportunities for economic self-reliance, and strengthening the network of NGOs and private companies that support refugee integration. Moreover, there are efforts to involve local communities when suitable, fostering peaceful coexistence and addressing the varied needs and abilities of refugees.

The *Welcoming Operation* (UNHCR, 2019) is a humanitarian strategy coordinated by the Federal Government in response to the flow of Venezuelans to Brazil. This operation involves the interiorization strategy, which provides socio-economic opportunities to Venezuelans, thereby alleviating pressure on public services. Interiorization enables Venezuelans to relocate to other Brazilian states voluntarily with better integration opportunities, such as finding jobs and dwellings beforehand and guaranteeing stability.

UNHCR also funds and supports reception and integration centers that assist in the socio-economic

© 2024 Global Journals

integration of people in destination cities, aiming to promote autonomous and sustainable solutions.

The NGO has supported the interiorization of more than 6,500 people through 50 Reception and Integration Centers (CAIs). Since 2018, 102,476 people have been interiorized, with 10,524 just between January and April 2023. In Curitiba, about 6.4% of the total interiorized people in the country are located, approximately 6,548 individuals. Of the available data, 48% are women, primarily adults, and 52% are men, also primarily adults.

Regarding interiorization, 63% were through social gatherings, 17% through family meetings, 12% through institutions, 5% through signaled job vacancies, and 2% without available information. This information assesses the impact and effectiveness of the strategy, while also providing insights into the specific groups that benefit from it. The analysis emphasizes the collaboration between various actors to address the humanitarian crisis comprehensively.

In addition to the mentioned strategies, there are other more specific ones. A report by the Ministry of Social Development details initiatives undertaken by the National Secretariat of Social Assistance to support immigrants facing social vulnerabilities. These initiatives aim to facilitate the integration of immigrants and refugees by providing resources for learning the local language, simplifying daily tasks (transport, health care, etc.), and assisting with entry into the job market (Costa, Cunha & Salama, 2020).

Building on the Brazil Action Plan launched in 2014, the Brazilian federal government has led efforts toward refugee protection and inclusion initiatives in the Southern region. The Quality Asylum program is one of the measures of this plan, seeking to improve eligibility procedures, train involved authorities, and optimize the management of asylum application processes (Torelly et al., 2018). There are also strategies related to education and human rights to adapt pedagogical proposals and guidelines for adult education to the specific needs of different population groups, including migrants and refugees (Curitiba, 2015).

Despite these strategies, challenges need to be addressed, such as high unemployment rates, informality in the job market, xenophobia, and lack of information by public officials and financial institutions, hindering refugees' achievement of self-sufficiency and total integration.

To ensure adequate protection and support for migrants, refugees, and stateless individuals, continuous assessment of implemented strategies is crucial. This ongoing evaluation should identify both their effectiveness and areas for improvement. Effective solutions require collaboration across sectors – public, private, and civil society – to deal with the humanitarian crisis comprehensively.

V. Case Examples

In this research, the examples are represented in “the livelihood strategy” and “the welcome operation”, which were successfully implemented through the collaboration of the government and UNHCR, thereby fostering refugees’ integration and well-being in the host society.

Other examples can also be cited. The Canadian case on social bridging for Syrian refugees offers valuable insights into how friendliness, intentional connections, and neighborly relations can help refugees adapt and feel a sense of belonging, which shows how a successful integration strategy requires a more comprehensive approach. The social bridging collaborators are government agencies, community organizations, and individual citizens. By working together, various entities can not only strengthen the support system for refugees, but also develop more effective strategies (Taylor, 2021)

Germany provides a successful example of how public services, civic engagement, and individual agency fosters successful refugee integration. Regions with high levels of civic engagement demonstrate significantly improved outcomes for refugees, including frequent contact with the population, higher life satisfaction, better language acquisition, and even access to better-paying jobs (especially for those with university degrees). This highlights the crucial role of holistic participation beyond simply government assistance. Support from civil society organizations acts as a critical bridge between refugees and public services, facilitating access to benefits and resources (Barreto et al., 2022).

Bologna's success in integrating refugees stems from a powerful collaboration between various entities. Civil society organizations played a fundamental role. They not only guaranteed essential services but also maintained a strong dialogue and collaboration with city administration and management. This combined effort between public institutions and private actors allowed for innovative social practices to be implemented (Campomori, Casula & Kazepov, 2023).

All of these case examples are related to the objective of this research and respective sections of Results and Discussion and also the Conclusion.

VI. Results and Discussion

The study thoroughly examines refugee housing access in Curitiba, addressing various dimensions such as spatial distribution, refugee categorization, and the right to the city framework. By analyzing these interconnected factors, the study sheds light on the complex challenges refugees face in finding adequate housing. This analysis underscores the critical need for adequate policies and comprehensive strategies to address these challenges effectively.

© 2024 Global Journals

A critical finding is the spatial distribution of refugees in Curitiba, which shows that refugees tend to form their communities, often clustering in specific neighborhoods. This pattern suggests a natural gravitation towards areas with established social networks and familiar faces. However, these neighborhoods often lack essential support services such as healthcare, education, and employment opportunities, creating significant barriers for refugees to access suitable housing and necessary amenities.

The study also categorizes refugees based on their reasons for displacement (e.g., war, persecution, environmental disasters) and their integration status within the host society. This categorization is essential for tailoring solutions that effectively address the specific needs and challenges faced by different refugee groups. For instance, refugees fleeing war might have different needs than those displaced by environmental disasters. By understanding these differences, targeted interventions can be developed to address the unique needs of each group, facilitating more effective integration and better housing solutions.

The study leverages the "right to the city" framework to assess refugees' access to essential urban resources and opportunities. This framework considers the right to housing, participation in urban life, and access to services. While the right to the city is a fundamental principle, the study reveals significant barriers that prevent refugees from fully exercising this right. Thereby, highlighting the need for more inclusive urban policies that ensure refugees can access and benefit from city resources.

There has been a notable increase in the refugee population in Curitiba in recent years, solidifying the city's status as a critical destination for refugees in Brazil. However, the study highlights a significant gap in accurate and centralized statistical data on refugees. This lack of reliable data hampers effective policymaking and resource allocation, underscoring the need for improved data collection mechanisms.

The study identifies the need to improve access to essential services in refugee neighborhoods, including healthcare, education, employment opportunities, and social services. Enhanced service provision can help alleviate some of the barriers refugees face and improve their overall quality of life. There is a critical need to make housing more affordable for refugees, which can be achieved through subsidies, affordable housing projects, and policies to reduce rental costs. Ensuring affordable housing is vital to helping refugees establish stable and secure living conditions.

Effective refugee integration requires fostering connections within the community, which involves creating opportunities for refugees to interact with the local population, fostering social cohesion, and reducing xenophobia. Strategies like community programs, cultural exchange initiatives, and regional partnerships can serve as powerful tools for fostering successful refugee integration. Effective refugee integration and housing access require collaboration among various stakeholders, including government agencies, non-governmental organizations, community groups, and international bodies. The study underscores the critical role of coordinated efforts and partnerships in addressing the complex issues surrounding refugee housing access.

The study highlights the importance of evidence-based policymaking. Accurate data and thorough analysis are essential for developing and implementing policies that effectively address the needs of refugees. Improved data collection and recording mechanisms are necessary to inform these policies and ensure resources are allocated where they are most needed.

By identifying critical areas for intervention and providing detailed recommendations, the research equips policymakers and stakeholders with the information needed to design tailored strategies. These strategies can significantly enhance refugee well-being and integration in Curitiba. Addressing the complexities of refugee housing access is crucial for fostering inclusive and resilient communities where refugees can thrive and contribute to the city's social, cultural, and economic fabric. This study paves the way for evidence-based decision-making and the implementation of targeted interventions, ultimately improving the lives of refugees in Curitiba.

VII. Conclusion

Arriving in new cities, refugees face significant challenges securing adequate housing due to disparities in availability, affordability, and location. This research offers a comprehensive understanding of these struggles. As cities grapple with growing populations, effective urban planning and targeted strategies are crucial to address refugee housing needs and ensure equitable access to public services. Hence, highlighting the fundamental human right to dignified housing, necessitating tailored urban policies and interventions that empower vulnerable refugee communities.

The research objective was achieved by analyzing housing concepts, the socio-economic profile of refugees, and their relations with Curitiba's city strategies, highlighting the strategic digital city subproject.

Research results bring discussions about refugee housing access in Curitiba to the forefront. City strategies such as the Second State Plan for Public Policies for Migrants, Refugees, and Stateless Individuals, UNHCR's Livelihood Strategy, and Operation Welcome stand out as means to guarantee fundamental rights and promote the socio-economic integration of refugees. Collaboration among

© 2024 Global Journals

stakeholders and comprehensive public policies emphasize the refugee situation in the host society. The analyses also reveal an increase in the refugee population in the city, underscoring the need for more precise data and a centralized information source.

Contributions are of interest to city managers, legislators, and civil organizations. The exploration of housing concepts, the refugee situation, and city strategies reflects concern for housing access for this vulnerable group through initiatives and collaborations among societal entities. For science, the research broadens the understanding of refugees, housing, and city strategies for a strategic digital city, including urban management and political science, besides discussing interdisciplinary themes like right to the city, human social sciences, and urbanism. For the investigated city, it reveals key strengths that are evident in the concern for refugees and initiatives for societal integration through city strategies and public policies. Finally, the contribution to refugees is evidenced by the quantity of Curitiba's city strategies and services, expanding the focus to refugee housing and their specific neighborhoods, consequently, increasing the understanding of the refugee situation and creating more specific strategies for particular needs.

Research limitations are related to the investigation in a singular city capital, not extending to the entirety of Brazil or global scenarios.

Future research could be enriched by including additional case studies from other countries.

In conclusion, this research offers a comprehensive understanding of the complexities surrounding refugee housing access in Curitiba, shedding light on their geographical distribution, categorization, and entitlement to the city. The study underscores the imperative need for robust policies and strategies tailored to address the multifaceted needs of refugees, emphasizing the fundamental principles of privacy and dignity in housing. It is crucial to recognize that many refugees encounter obstacles in accessing essential services, and securing adequate housing plays a pivotal role in safeguarding their dignity and overall well-being. Moreover, effective city strategies play a crucial role in facilitating the integration of refugee populations. At the same time, adept public management practices are essential in combatting discrimination and fostering inclusivity within urban communities. Through a concerted effort to prioritize the housing needs of refugees and uphold their rights within urban contexts, cities can take significant strides toward creating more equitable and inclusive societies.

References Références Referencias

1. Ahvenniemi, H. & Huovila A. (2021). How do cities promote urban sustainability and smartness? An evaluation of the city strategies of six largest Finnish cities. *Environ. Dev. Sustain, 23*(3), 4174–4200. https://doi.org/10.1007/s10668-020-00765-3.
2. Almeida, G.G.F. & Rezende, D.A. (2021). Cidade digital estratégica: uma década de pesquisas em debate. *Revista Espaço Acadêmico.* (230), 287-298.
3. Andrade, L.T. & Breviglieri, Z.L. (2016). Direito a moradia e gentrificação: a política de aluguel em foco, *Revista de Direito Urbanístico, Cidade e Alteridade. 2*(1), 116-136. http://dx.doi.org/10.26668/IndexLawJournals/2525-989X/2016.v2i1.503
4. Andrade, V.P. & Ramina, L. (2013). Refúgio e dignidade da pessoa humana: breves considerações, in: Annoni D, Valdes LC. *O direito internacional dos refugiados e o Brasil.* Curitiba: Juruá.
5. Barreto, C., Berbée, P., Gallegos Torres, K., Lange, M. & Sommerfeld, K. (2022). The Civic Engagement and Social Integration of Refugees in Germany. *Nonprofit Policy Forum*, 13(2), 161-174. https://doi.org/10.1515/npf-2022-0015
6. Brady, B., Chaskin, R.J. & Mcgregor, C. (2020). Promoting civic and political engagement among marginalized urban youth in three cities: Strategies and challenges, *Children and Youth Services Review. 116*, 105-184. https://doi.org/10.1016/j.childyouth.2020.105184
7. Brasil, (2022). Conselho Estadual dos Direitos dos Refugiados, Migrantes e Apátridas (CERMA*), II Plano Estadual de Políticas Públicas para a Promoção e Defesa dos Direitos dos Migrantes, Refugiados e Apátridas do Paraná.* Paraná.
8. Brasil. (1997). LEI Nº 9.474, de 22 de julho de 1997. Brasília, DF: Diário Oficial da União, 1997. Available at: http://www.planalto.gov.br/ccivil_03/leis/l9474.htm. Accessed 28 nov, 2022.
9. Campomori, F., Casula, M., & Kazepov, Y. (2023). Understanding social innovation in refugee integration: actors, practices, politics in Europe. *Innovation: The European Journal of Social Science Research*, 36(2), 158–170. https://doi.org/10.1080/13511610.2023.2211893
10. Campos, L.M.F. (2016). *Administração estratégica: planejamento, ferramentas e implantação*. Curitiba: Intersaberes.
11. Carbonari, L.T. & Librelotto, L.I. (2020). Abrigo Temporário Para Refugiados Venezuelanos Indígenas Em Boa Vista, Roraima. *Revista Gestão and Sustentabilidade Ambiental.* 9, 372-391. https://doi.org/10.19177/rgsa.v9e0l2020372-391
12. Carneiro, C.S. & Oliveira, L.G. (2022). O acolhimento de pessoas em busca de refúgio no Brasil: cidadania e direito à cidade. *Revista de Direito da Cidade. 14*(01), 91-112. https://doi.org/10.12957/rdc.2022.52969
13. Christofi, C., & Georgiadou, N. (2023). Narratives of the Migrant Crisis. *Global Journal of Human-Social Science, 23*(04), 15-24.

© 2024 Global Journals

14. Costa, J.D., Cunha, V.S. & Salama, Y. (2020). A integração de imigrantes e refugiados no estado do Paraná: o acesso às políticas públicas e a intervenção do Assistente Social nesse processo. *Humanidades em Perspectivas. 4(*8).
15. Curitiba. *Prefeitura Municipal. Lei Ordinária de Curitiba-PR*, nº 14.681 de 24/06/2015. Curitiba. 2015. Available at: https://leismunicipais.com.br/plano-municipal-de-educacao-curitiba-pr. Accessed 20 mai. 2023.
16. Duarte, P. & Carvalho, M.A.(2021). Os fluxos migratórios para o brasil e as políticas públicas para integração local de refugiados no contexto brasileira. *Revista Direito das Políticas Públicas. 2*(2), 8–32.
17. El-Kayed, N. & Hamann, U. (2018). Refugees' Access to Housing and Residency in German Cities: Internal Border Regimes and Their Local Variations. *Social Inclusion. 6*(1), 135-146. https://doi.org/10.17645/si.v6i1.1334
18. Fagundes, P.G. & Augusto, D.P.B. (2022). A integração dos refugiados no Brasil: Fatores históricos e protocolos de gestão implementados. *Perspectivas em Políticas Públicas. 14*(28), 83–99.
19. Flores, C.C. & Rezende, D.A. (2022). Crowd sourcing framework applied to strategic digital city projects. *Journal of Urban Management, 11*(4), 467-478. https://doi.org/10.1016/j.jum.2022.08.004
20. Flores, C.C. & Rezende, D.A. (2018). Twitter information for contributing to the strategic digital city: Towards citizens as co-managers. *Telematics and Informatics, 35*(5), 1082–1096.
21. Frey, K. (2002). Governança eletrônica: experiências de cidades europeias e algumas lições para países em desenvolvimento. In: Eisenberg, J. & Cepik, M. (orgs.), *Internet e política: teoria e prática da democracia eletrônica*, 141-163.
22. Fumagalli, L.A.W., Rezende, D.A. & Guimarães, T.A. (2021). Challenges for public transportation: Consequences and possible alternatives for the Covid-19 pandemic through strategic digital city application. *Journal of Urban Management, 10*(2), 97–109.
23. Fumagalli, L.A.W., Rezende, D.A. & Guimarães, T.A. (2022). Data Intelligence in Public Transportation: Sustainable and Equitable Solutions to Urban Modals in Strategic *Digital City Subproject. Sustainability, 14*(8). https://doi.org/10.3390/su14084683
24. Harvey D. (2013). *Rebel Cities: From the Right to the City to the Urban Revolution.* Verso books.
25. Ivanóski, C.G. & Carvalho, M.A. (2023). Uma estrutura de gestão urbana para cidades inovadoras sustentáveis. *IMPACT projects, 2*(1).
26. Jacobs, J. (2011). *The death and life of great American cities*. 50th Anniversary ed. Modern library.
27. Lacerda, N., Mendes Z.S. & Diniz F. (2000). Planejamento metropolitano: uma proposta de conservação urbana e territorial. *EURE (Santiago), 26*(79). http://dx.doi.org/10.4067/S0250-71612000007900005
28. Lee, H. (2023). Strategic types, implementation, and capabilities: Sustainability policies of local governments. *Public Administration*, 1-21. https://doi.org/10.1111/padm.12917
29. Lefebvre H. (2009). *Le Droit à la ville.* 3 ed. Economica.
30. Lencioni S. Metropolização. GEOgraphia. 2020; 22(48).
31. Lima, S.M.S.A., Lopes, W.G.R. & Façanha, A.C. (2019). Desafios do planejamento urbano na expansão das cidades: entre planos e realidade. urbe. *Revista Brasileira de Gestão Urbana, 11.* https://doi.org/10.1590/2175-3369.011.e20180037
32. Torelly, M., Khoury, A., Vedovato, L. R., & Korber Gonçalves, V. (2018). *Política de migração e refúgio do Brasil consolidada,* vol.2: política de refúgio do Brasil consolidada. Brasília.
33. Marconi, M.D.A. & Lakatos, E.M. (2022). *Metodologia científica.* 8 ed. São Paulo: Atlas.
34. Mello, M. (2020). *Segregação urbana, reurbanização, direito à moradia e a Lei n. 13.465/17,* conflitos e análises a partir da teoria lefebvriana da cidade. Available at: https://emporiododireito.com.br/leitura/segregacao-urbana-reurbanizacao-direito-a-moradia-e-a-lei-13-465-17-conflitos-e-analises-a-partir-da-teoria-lefebrviana-da-cidade. Accessed 15 jan. 2022.
35. Mendonça, J.G. (2006). Planejamento e medição da qualidade de vida urbana. *Cadernos metrópole,* (15), 13-24.
36. Mitchell, D. (2020). Toward a theory of public strategic implementation. *Governance and Management Review. 5*(1), 17-37.
37. Nichols, A.L. & Edlund, J. (2023). *The Cambridge Handbook of Research Methods and Statistics for the Social and Behavioral Sciences.* Cambridge: Cambridge University Press, 600p.
38. Oliveira, F. & Miguez, M. (2016). Elementos sustentáveis de habitação: intervenções sustentáveis de baixo custo para moradias de interesse social – O caso da favela da Margem da Linha. In: 2 SEMINÁRIO CIDADES, ESPAÇOS PÚBLICOS E PERIFERIAS, 2016, Rio de Janeiro. *Anais [...]. Rio de Janeiro*: Diretório CNPq Universidade Federal Fluminense (UFF), 76-87.
39. Oliveira, J.C.P. & Pedlowski, M.A. (2013). Políticas municipais de habitação social em campos dos Goytacazes: quando a proximidade física serve para aumentar a distância social. Encontro da Associação Nacional de Pós-Graduação e Pesquisa em Planejamento Urbano e Regional, 15. Recife. *Anais ENANPUR*, ST7 – 584.

© 2024 Global Journals

40. Oliveira, T.D. de, Pires, D. M., das Chagas, D. H. S., Hardt, J. G., Castro, V. A. e S., da Silva, Áureo R. F., & Zulato, F. V. G. (2023). Cidade e cidadão: o planejamento estratégico e suas inter-relações com a gestão pública e a qualidade de vida das pessoas. *Revista Gestão e Secretariado (GeSec), 14*(4), 6231-6241. https://doi.org/10.7769/gesec.v14i4.2046
41. Ongaro, E. & Ferlie, E. (2020). Strategic Management in Public Organizations: Profiling the Public Entrepreneur as Strategist. *The American Review of Public Administration, 50*(5), 360-374. https://doi.org/10.1177/0275074020909514
42. Pacífico, A.M.C.P. & Silva, S.F.L.A. (2019). A cooperação como instruem,nto para fortalecer a integração de migrantes forçados venezuelanos na Paraíba em 2018. *Monções: Revista de Relações Internacionais da UFGD, 8*(16), 308-334. https://doi.org/10.30612/rmufgd.v8i16.9839
43. Rezende, D.A. (2012). *Planning strategies and municipal information for the digital city: guide for projects in city halls and public organizations.* São Paulo: Atlas.
44. Rezende, D.A. (2023). Strategic digital city: concept, model, and research cases. *Journal of Infrastructure, Policy and Development, 7*(2), 1-2177. https://doi.org/10.24294/jipd.v7i2.2177
45. Rezende, D.A. & Procopiuck, M. (2018). Projeto de cidade digital estratégica como política pública: o caso de Chicago, EUA. *Revista Tecnologia e Sociedade, 14*(33), 246-269. https://doi.org/10.3895/rts.v14n33.7467
46. Ribeiro, S.S., Rezende D.A. & Yao J. (2019). Toward a model of the municipal evidence-based decision process in the strategic digital city context. *Information Polity,* 24(3), 305–324. https://doi.org/10.3233/IP-190129
47. Roberts, P. & Edwards, L.H. (2023). Portfolio Management: A New Direction in Public Sector Strategic Management Research and Practice. *Public Administration Review, 1*(13). https://doi.org/10.1111/1467-8500.12615
48. Romanelli, C. & Abiko, A.K. (2011). *Processo de Metropolização no Brasil. Texto Técnico da Escola Politécnica da USP.* Departamento de Engenharia de Construção Civil (TT/PCC/028). São Paulo, Escola Politécnica.
49. Salcedo, R.F.B. (2020). Parâmetros para assegurar sustentabilidade e moradia adequada nos centros históricos da América Latina. *Revista Latino-americana de Ambiente Construído and Sustentabilidade, 1*(4).
50. Salvi, L.T, Hardt, L. P. A., Rezende, D. A., & Hardt, C. (2016). Novos desafios à administração estratégica de políticas públicas e projetos urbanos. *Revista da FAE, 10*(1).
51. Santos, M. (2014). *O Espaço do Cidadão.* 7.ed., São Paulo: Editora da Universidade de São Paulo.
52. Schmidt, K., Jacobsen, J., & Krieger, M. (2020). Social integration of refugees is improving. *DIW Weekly Report*, *10*(34), 355-363.
53. Silva, F.R. & Fernandes, D. (2017). Desafios enfrentados pelos imigrantes no processo de integração social na sociedade brasileira. *Revista do Instituto de Ciências Humanas, 13*(18), 50-64.
54. Silva, M. R. de, Bussador, A., Botton, J. P., Freitas Zara, K. R., Almeida, G. G. F., & Rezende, D. A. (2022). Relações entre estratégias, serviços públicos e cidade digital estratégica: casos de Foz do Iguaçu e Pinhais, Paraná, Brasil. *Revista Tecnologia e Sociedade, 18*(54). doi: 10.3895/rts.v18n54.15324
55. Silva, M.V.G. & Procopiuck, M.A. (2019). A produção científica sobre gestão urbana: análise bibliométrica de 2010 a 2017. *EURE (Santiago), 45*(136), 279-293. http://dx.doi.org/10.4067/S0250-71612019000300279
56. Souza, M.L. (2002). *Mudar a cidade: Uma introdução crítica ao planejamento e à gestão urbanos.* 11ª edição. São Paulo: Bertrand Brasil.
57. Tavares, A. K. (2022). 150 Years of the Housing Question. *Global Journal of Human-Social Science*, *22*(8), 1-13.
58. Taylor, M. D. (2021). Exploring social bridging, sense of belonging, and integration amongst the Syrian refugee community. *ERA education & research archive*. https://doi.org/10.7939/r3-vdet-pe42
59. Teixeira, A.V. & Rezende, D.A. (2023). A Multidimensional Information Management Framework for Strategic Digital Cities: A Comparative Analysis of Canada and Brazil. *Global Journal of Flexible Systems Management, 24*(1), 107-121. https://doi.org/10.1007/s40171-022-00325-w
60. Trivellato, B., Martini M & Cavenago, D. (2021). How Do Organizational Capabilities Sustain Continuous Innovation in a Public Setting?. *The American Review of Public Administration, 51*(1), 57-71. https://doi.org/10.1177/0275074020939263
61. Trutkowski, C., Odzimek, W. & Zarkowsk, R. (2022). *Strategic city planning. Council of Europe.* Centre of Expertise for good governance. Jerzy Regulski Foundation in Support of Local Democracy.
62. UNICEF. *Universal declaration of human rights*. (1948). Available at: https://www.unicef.org/brazil/declaracao-universal-dos-direitos-humanos. Accessed 15 dez. 2022.
63. UNHCR. *Interiorization.* (2018). Available at: https://www.UNHCR.org/portugues/construir-futuros-melhores/solucoes-duradouras/integracao-local/interiorizacao/. Accessed 20 mai. 2023.

© 2024 Global Journals

64. UNHABITAT. *Annual report.* (2020). Available at: https://unhabitat.org/annual-report. Accessed: 20 mai. 2023.
65. Ultramari, C. & Rezende, D.A. (2006). Mudanças e continuidades na gestão urbana brasileira. *Revista paranaense de Desenvolvimento,* (111), 19-28.
66. UNHABITAT. The Right to Adequate housing. (2009). *Human rights. Fact sheet, 21*(1).
67. UNHCR. *Convention relating to the Status of Refugees,* (1951). Available at: https://www.UNHCR.org/fileadmin/Documentos/portugues/BDL/Convencao_relativa_ao_Estatuto_dos_Refugiados.pdf. Accessed 15 dez. 2022.
68. UNHCR. *Cartagena Declaration,* (1984). Available at: https://www.UNHCR.org/fileadmin/Documentos/portugues/BD_Legal/Instrumentos_Internacionais/Declaracao_de_Cartagena.pdf. Accessed 15 dez. 2022.
69. UNHCR. *Estratégia de meio de vida.* (2019). Available at: https://www.UNHCR.org/portugues/wp-content/uploads/2020/10/Estrategia-Meios-de-Vida-2019-2021-.pdf. Accessed 20 mai. 2023.
70. Violin, J. & Spinicci, J. (2018). O direito fundamental à moradia digna: conteúdo e desafios. *Revista de direito constitucional e internacional, 26*(109), 93-117.
71. Vitte, C.C. de CS. (2010). Cidadania, qualidade de vida e produção do espaço urbano: desafios para a gestão urbana e para o enfrentamento da questão social. In: Baeninger R (org.). *População e cidades: subsídios para o planejamento e para as políticas sociais.* Campinas: Nepo/Unicamp: Brasília: UNFPA, 1, 79-97.
72. Vilić, D. (2021). Challenges, Issues and Opportunities for Integration of Refugees into Immigration Society. *Researching economic development and entrepreneurship in transition economies*, 33-45.
73. Watol, B. S., & Assefa, D. T. (2018). The Socio-Economic Impact of Refugees on the Neighboring Countries: The Case of Sherkole Refugee Camp, Western Ethiopia. *Global Journal of Human-Social Science*, *18*(4), 29-40.
74. Yin, R.K. (2017). *Case Study Research and Applications: case study research and applications.* 6. ed. California: Sage Publications, Inc., 352p.

© 2024 Global Journals

Global Journal of human-social science: H Interdisciplinary
Volume 24 Issue 4 Version 1.0 Year 2024
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

Perspectives Social Engineering and its Context for Development in Nepal

By Rajendra Lamichhane
Pokhara University

Introduction- Social engineering is the field of social science which study about design and influence of human societies. It's concern with those social dynamics which drive on such a way that affect entire populations. For social engineering, social engineer needs the knowledge, skills, strategy, techniques and ideas in relation to anthropology, psychology, sociology, public health, politics, technology, cybernetics and others subjects along with how these subjects influence society as a whole and the wellbeing of the individuals. (Donovan, 2017)

For social engineering and development, first of all, our concern should be as to comprehend the dynamics of the society through practical application of scientific ideas and principles to plan, design, build and use social systems (communities, institutions, organizations) for societal and humanitarian development. It also aims to equip us with explanatory capabilities of social issues and their solutions for all types of societies.

GJHSS-H Classification: LCC: JV6347, HT169.57.B7



Strictly as per the compliance and regulations of:

© 2024. Rajendra Lamichhane. This research/review article is distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creativecommons.org/licenses/by-nc-nd/4.0/.

Perspectives Social Engineering and its Context for Development in Nepal

Rajendra Lamichhane

Introduction

Social engineering is the field of social science which study about design and influence of human societies. It's concern with those social dynamics which drive on such a way that affect entire populations. For social engineering, social engineer needs the knowledge, skills, strategy, techniques and ideas in relation to anthropology, psychology, sociology, public health, politics, technology, cybernetics and others subjects along with how these subjects influence society as a whole and the wellbeing of the individuals. (Donovan, 2017)

For social engineering and development, first of all, our concern should be as to comprehend the dynamics of the society through practical application of scientific ideas and principles to plan, design, build and use social systems (communities, institutions, organizations) for societal and humanitarian development. It also aims to equip us with explanatory capabilities of social issues and their solutions for all types of societies.

The social engineering encompasses integration of multiple ideas, technologies for the societal structuration (Nanda & De, 2022) including institutions with in the society, dominant group of people, ethnicity and ethnic groups within the society where all the people residing in the society have healthy interactions in different places of public and in the social institutions.

There is the beliefs that society changes somehow on its own through uncoordinated actions of the masses, taken society as simply a random product of millions of individuals, working in their own self-interest. The fact, there is a need of huge amount incentives to control the behavior of a population. If we able to control behavior of people, we can gain power. The crux of power is the control of behavior.(Donovan, 2017)

In Nepal, there is an attempt to oversee the human behavior and development within the society concerning social change in different time and space by different social engineer and the social researcher. (Hachhethu, 2002) The structure of society based on the classification of work in the past (Kafle, 2023) now at present we can see uneven distribution of resources among people, such as crop land, access to food, housing, education, healthcare and other facilities. (Khadka, 2012) The rigidity, untouchability among the cast and ethnicity within and between can be seen resulting discrimination, violence, and unequal relationship among the people in Nepal (NG'WENO, 2019) and are seen controlled by actions of neighbors, mothers group, youth club, reconciliation committee formed by the government in the ward level and the legal institutions in the form of punishment and compensation. Marriage, family, and kinship relations are interacting more within the category of status of people considering place of residence, property, cast and ethnicity, and educational background. (Khatri, 2021) At past, type of marriage was occupied more by arranged marriage now replaced by love marriage, love into arrange, court marriage etc.(Raj Kumar Basnet, 2024) There is also increase in flexibility and acceptance among the love marriage, inter-cast marriage in the society but some older generation in the households are even are not accepting and are showing rigid behavior as they are expecting the type of marriage and behavior what they are learned and practice at their time. If we discuss regarding gender, male were valued and were getting more chance and opportunities in education, job and other high economic activities at past now this situation is somehow changing where son and daughter are getting chance in the different activities. In classes of higher education, girl's number can be seen higher than that of male in Nepal. (Acharya et al., 2022) The culture of migration to foreign countries for study and work is also increasing resulting remaining of dependent population more in number among families of Nepal. (Koirala P, Gautam K, Regmi U, Sharma N, 2017) High migration among productive age, providing space for extra marital relation among the people, where the migrant workers the male or female may involve in the extra marital relation within or out of the country, weakening families relation, conflict and some ending with divorce. Divorced family may be vulnerable to be secure and to get support, where there might be need of appropriated intervention to protect them. The role of social engineer is to advocate for the design of public space, social structure where people interact and maintain healthy relation for the solidarity and social cohesion. (Aelbrecht & Stevens, 2021) The cohabitation at the recent days are increasing. (Maharjan, 2022) Age at which couple get married and age while birth to first

Author: School of Development and Social Engineering, Pokhara University, Nepal. e-mail: rajendralamichhane2023@gmail.com

© 2024 Global Journals

child also increasing. There is change in family structure where nuclear family can be seen more in number in the society than that of joint and extended family there are exceptionally some ethnic and religious groups where joint and extended family common among them.

Due to brain drain, there is decrease of productive age group, youth, young, knowledge and skillful resources in the country (Mainali, 2019)may foster slow pace of developmental activities like, production, consumption, social and structural development. The economic institutions like cooperatives and banks, where interactions of people on these institutions are based on peoples beliefs on security concern, interest provision and accessibility in terms of distance within their locality. (Wagle, 2022) The substantial production in the rural area, some fertile land within the municipalities, now slowly some people are heading towards small scale entrepreneurship (Karki, 2017) and there is increasing culture of high consumerism among the people. Impact of globalization, technological advancement, transportation, communication, resulting easy access to resources like technology, goods and products for people in terms of distance and price. (Alejla, 2023) Technology, goods and products are shared in the different places in short time.(Andrew S. Wigodsky, 2004) There is high interaction among people of global society are possible due to globalization and people are sharing materialistic and non-materialistic culture.(Mark Clevaland, Michel Laroche, 2015) So, the technological advancement and close relationship among the global society resulting insecure relation and security among the people where fraud, phishing, malware, etc. and manipulating the peoples psychology may foster stress, anxiety and even deviances among the people where suicidal ideation and suicide like phenomena may increase in the society.

Globally, there is increasing access to universal connection of internet where social media is being dominance, (Poushter, 2016) the study of changes in thought patterns among people and behaviors of a society holds significant importance.

Here, the social engineers role is to build society, solve social problems, and construct social structures in such a way, where people maintain good relation enhance wellbeing and improve quality of life.

References Références Referencias

1. Acharya, M., Acharya, K. P., & Gyawali, K. (2022). Higher Education Status in Nepal: Possibilities and Prospects. *The Educator Journal*, *10*(1), 105–118. https://doi.org/10.3126/tej.v10i1.46733
2. Aelbrecht, P., & Stevens, Q. (2021). *From Mixing with Strangers to Collective Placemaking : Existing Theories, Policies and Practices around Social Cohesion in Public Space Design*. *April*.
3. Alejla, R. (2023). The Role of Globalization in the Spread of Technology and Innovation across Global Markets: The Case of China. *Journal of International Relations*, *3*(2), 38–46. https://doi.org/10.47604/jir.2162
4. Andrew S. Wigodsky. (2004). *RAPID Value Management for the Business Cost of Ownership*. https://www.sciencedirect.com/topics/computer-science/shared-technology
5. Donovan, D. (2017). *Societal Engineering: What is it, and Why is it Valuable?* https://medium.com/societalengineering/societal-engineering-what-is-it-and-why-is-it-valuable-906be680d108
6. Hachhethu, K. (2002). *Social Sciences Research in Nepal*. https://www.jstor.org/stable/4412552
7. Kafle, D. R. (2023). A History of Untouchability in Nepal. *Voice of History*, *31*(1), 10–17. https://doi.org/10.3126/voh.v31i1.53790
8. Karki, B. B. (2017). Entrepreneurship Development Programme with Reference To Small Enterprises in Nepal. *Janapriya Journal of Interdisciplinary Studies*, *3*(December), 16–22. https://doi.org/10.3126/jjis.v3i0.17893
9. Khadka, K. (2012). Land and natural resources: central issues in the peace and democratisation process in Nepal. *Economic Journal of Development Issues*, *11*(1), 47–68. https://doi.org/10.3126/ejdi.v11i0.6106
10. Khatri, B. K. (2021). Marriage Practice in Contemporary Nepal. *NUTA Journal*, *8*(1–2), 13–20. https://doi.org/10.3126/nutaj.v8i1-2.44032
11. Koirala P, Gautam K, Regmi U, Sharma N, K. S. (2017). *Labour Migration social and psychological impact: Transcultural Psychosocial Organization*. *4*(1), 9–15.
12. Maharjan, N. K. (2022). *Living Together Relationships in Nepal : Need for Legal Protection*. *June*.
13. Mainali, B. R. (2019). Brain drain and higher education in Nepal. *Higher Education in Nepal: Policies and Perspectives*, *August 2019*, 87–99. https://doi.org/10.4324/9781351139205-7
14. Mark Clevaland, Michel Laroche, N. P. (2015). *GLOBAL CONSUMER CULTURE AND LOCAL IDENTITY AS DRIVERS OF MATERIALISM: AN INTERNATIONAL STUDY OF CONVERGENCE AND DIVERGENCE*. 479. https://link.springer.com/chapter/10.1007/978-3-319-24184-5_119#preview
15. Nanda, I., & De, R. (2022). Social Engineering: an Introduction. *Information Management and Computer Science*, *5*(2), 36–37. https://doi.org/10.26480/imcs.02.2022.36.37
16. NG'WENO, B. (2019). Unequal Citizens, Gender, Caste and Ethnic Exclusion in Nepal. *Turf Wars*, 195–228. https://doi.org/10.2307/j.ctvr33cv6.12

© 2024 Global Journals

17. Poushter, J. (2016). Smartphone Ownership and Internet Usage Continues to Climb in Emerging Economies. *Pew Research Center*, 1–45. http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/
18. Raj Kumar Basnet. (2024). *Marriages System in Nepal*. https://outfitternepal.com/blog/marriages-system-in-nepal
19. Wagle, S. (2022). Factors influencing bank selection decision in Nepal. *Patan Prospective Journal*, *2*(2), 232–240. https://doi.org/10.3126/ppj.v2i2.53122

© 2024 Global Journals

Global Journals Guidelines Handbook 2024

www.GlobalJournals.org

Memberships

Fellows/Associates of Social Science Research Council

FSSRC/ASSRC Memberships



Introduction

FSSRC/ASSRC is the most prestigious membership of Global Journals accredited by Open Association of Research Society, U.S.A (OARS). The credentials of Fellow and Associate designations signify that the researcher has gained the knowledge of the fundamental and high-level concepts, and is a subject matter expert, proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice. The credentials are designated only to the researchers, scientists, and professionals that have been selected by a rigorous process by our Editorial Board and Management Board.

Associates of FSSRC/ASSRC are scientists and researchers from around the world are working on projects/researches that have huge potentials. Members support Global Journals' mission to advance technology for humanity and the profession.

FSSRC

Fellow of Social Science Research Council

FELLOW OF SOCIAL SCIENCE RESEARCH COUNCIL is the most prestigious membership of Global Journals. It is an award and membership granted to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Fellows are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Fellow Members.

Benefits

To the institution

Get letter of appreciation

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



Exclusive Network

Get access to a closed network

A FSSRC member gets access to a closed network of Tier 1 researchers and scientists with direct communication channel through our website. Fellows can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career | Credibility | Exclusive | Reputation



Certificate

Certificate, LOR and Laser-Momento

Fellows receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career | Credibility | Exclusive | Reputation



Designation

Get honored title of membership

Fellows can use the honored title of membership. The “FSSRC” is an honored title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FSSRC or William Walldroff, M.S., FSSRC.

Career | Credibility | Exclusive | Reputation

Recognition on the Platform

Better visibility and citation

All the Fellow members of FSSRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation. All fellows get a dedicated page on the website with their biography.

Career | Credibility | Reputation

© Copyright by Global Journals | Guidelines Handbook

Future Work

Get discounts on the future publications

Fellows receive discounts on future publications with Global Journals up to 60%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career | Financial



GJ Account

Unlimited forward of Emails

Fellows get secure and fast GJ work emails with unlimited forward of emails that they may use them as their primary email. For example,
john [AT] globaljournals [DOT] org.

Career | Credibility | Reputation



Premium Tools

Access to all the premium tools

To take future researches to the zenith, fellows receive access to all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

Conferences & Events

Organize seminar/conference

Fellows are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent. Additionally, they get free research conferences (and others) alerts.

Career | Credibility | Financial

Early Invitations

Early invitations to all the symposiums, seminars, conferences

All fellows receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive



Publishing Articles & Books

Earn 60% of sales proceeds

To take future researches to the zenith, fellows receive access to all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Exclusive | Financial

Reviewers

Get a remuneration of 15% of author fees

Fellow members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

Access to Editorial Board

Become a member of the Editorial Board

Fellows may join as a member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. Additionally, Fellows get a chance to nominate other members for Editorial Board.

Career | Credibility | Exclusive | Reputation

And Much More

Get access to scientific museums and observatories across the globe

All members get access to 5 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 10 GB free secure cloud access for storing research files.

© Copyright by Global Journals | Guidelines Handbook

ASSRC

ASSOCIATE OF SOCIAL SCIENCE RESEARCH COUNCIL

ASSOCIATE OF SOCIAL SCIENCE RESEARCH COUNCIL is the membership of Global Journals awarded to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Associate membership can later be promoted to Fellow Membership. Associates are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Associate Members.

Benefits

To the institution

Get letter of appreciation

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



Exclusive Network

Get access to a closed network

A ASSRC member gets access to a closed network of Tier 2 researchers and scientists with direct communication channel through our website. Associates can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career | Credibility | Exclusive | Reputation



Certificate

Certificate, LoR and Laser-Momento

Associates receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career | Credibility | Exclusive | Reputation



Designation

Get honored title of membership

Associates can use the honored title of membership. The “ASSRC” is an honored title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., ASSRC or William Walldroff, M.S., ASSRC.

Career | Credibility | Exclusive | Reputation

Recognition on the Platform

Better visibility and citation

All the Associate members of ASSRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation.

Career | Credibility | Reputation

Future Work

Get discounts on the future publications

Associates receive discounts on future publications with Global Journals up to 30%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career | Financial



GJ Account

Unlimited forward of Emails

Associates get secure and fast GJ work emails with 5GB forward of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org.

Career | Credibility | Reputation



Premium Tools

Access to all the premium tools

To take future researches to the zenith, fellows receive access to almost all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

Conferences & Events

Organize seminar/conference

Associates are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent. Additionally, they get free research conferences (and others) alerts.

Career | Credibility | Financial

Early Invitations

Early invitations to all the symposiums, seminars, conferences

All associates receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive



Publishing Articles & Books

Earn 60% of sales proceeds

Associates can publish articles (limited) without any fees. Also, they can earn up to 30-40% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.

Exclusive | Financial

Reviewers

Get a remuneration of 15% of author fees

Associate members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

And Much More

Get access to scientific museums and observatories across the globe

All members get access to 2 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 5 GB free secure cloud access for storing research files.

Associate	Fellow	Research Group	Basic
$4800 **lifetime designation**	$6800 **lifetime designation**	$12500.00 **organizational**	APC **per article**
Certificate, LoR and Momento **2** discounted publishing/year **Gradation** of Research **10** research contacts/day **1 GB** Cloud Storage **GJ** Community Access	**Certificate,** LoR and Momento **Unlimited** discounted publishing/year **Gradation** of Research **Unlimited** research contacts/day **5 GB** Cloud Storage **Online Presense** Assistance **GJ** Community Access	**Certificates,** LoRs and Momentos **Unlimited** free publishing/year **Gradation** of Research **Unlimited** research contacts/day **Unlimited** Cloud Storage **Online Presense** Assistance **GJ** Community Access	**GJ** Community Access

Preferred Author Guidelines

We accept the manuscript submissions in any standard (generic) format.

We typeset manuscripts using advanced typesetting tools like Adobe In Design, CorelDraw, TeXnicCenter, and TeXStudio. We usually recommend authors submit their research using any standard format they are comfortable with, and let Global Journals do the rest.

Alternatively, you can download our basic template from https://globaljournals.org/Template.zip

Authors should submit their complete paper/article, including text illustrations, graphics, conclusions, artwork, and tables. Authors who are not able to submit manuscript using the form above can email the manuscript department at submit@globaljournals.org or get in touch with chiefeditor@globaljournals.org if they wish to send the abstract before submission.

Before and during Submission

Authors must ensure the information provided during the submission of a paper is authentic. Please go through the following checklist before submitting:

1. Authors must go through the complete author guideline and understand and *agree to Global Journals' ethics and code of conduct,* along with author responsibilities.
2. Authors must accept the privacy policy, terms, and conditions of Global Journals.
3. Ensure corresponding author's email address and postal address are accurate and reachable.
4. Manuscript to be submitted must include keywords, an abstract, a paper title, co-author(s') names and details (email address, name, phone number, and institution), figures and illustrations in vector format including appropriate captions, tables, including titles and footnotes, a conclusion, results, acknowledgments and references.
5. Authors should submit paper in a ZIP archive if any supplementary files are required along with the paper.
6. Proper permissions must be acquired for the use of any copyrighted material.
7. Manuscript submitted *must not have been submitted or published elsewhere* and all authors must be aware of the submission.

Declaration of Conflicts of Interest

It is required for authors to declare all financial, institutional, and personal relationships with other individuals and organizations that could influence (bias) their research.

Policy on Plagiarism

Plagiarism is not acceptable in Global Journals submissions at all.

Plagiarized content will not be considered for publication. We reserve the right to inform authors' institutions about plagiarism detected either before or after publication. If plagiarism is identified, we will follow COPE guidelines:

Authors are solely responsible for all the plagiarism that is found. The author must not fabricate, falsify or plagiarize existing research data. The following, if copied, will be considered plagiarism:

- Words (language)
- Ideas
- Findings
- Writings
- Diagrams
- Graphs
- Illustrations
- Lectures

- Printed material
- Graphic representations
- Computer programs
- Electronic material
- Any other original work

Authorship Policies

Global Journals follows the definition of authorship set up by the Open Association of Research Society, USA. According to its guidelines, authorship criteria must be based on:

1. Substantial contributions to the conception and acquisition of data, analysis, and interpretation of findings.
2. Drafting the paper and revising it critically regarding important academic content.
3. Final approval of the version of the paper to be published.

Changes in Authorship

The corresponding author should mention the name and complete details of all co-authors during submission and in manuscript. We support addition, rearrangement, manipulation, and deletions in authors list till the early view publication of the journal. We expect that corresponding author will notify all co-authors of submission. We follow COPE guidelines for changes in authorship.

Copyright

During submission of the manuscript, the author is confirming an exclusive license agreement with Global Journals which gives Global Journals the authority to reproduce, reuse, and republish authors' research. We also believe in flexible copyright terms where copyright may remain with authors/employers/institutions as well. Contact your editor after acceptance to choose your copyright policy. You may follow this form for copyright transfers.

Appealing Decisions

Unless specified in the notification, the Editorial Board's decision on publication of the paper is final and cannot be appealed before making the major change in the manuscript.

Acknowledgments

Contributors to the research other than authors credited should be mentioned in Acknowledgments. The source of funding for the research can be included. Suppliers of resources may be mentioned along with their addresses.

Declaration of funding sources

Global Journals is in partnership with various universities, laboratories, and other institutions worldwide in the research domain. Authors are requested to disclose their source of funding during every stage of their research, such as making analysis, performing laboratory operations, computing data, and using institutional resources, from writing an article to its submission. This will also help authors to get reimbursements by requesting an open access publication letter from Global Journals and submitting to the respective funding source.

Preparing your Manuscript

Authors can submit papers and articles in an acceptable file format: MS Word (doc, docx), LaTeX (.tex, .zip or .rar including all of your files), Adobe PDF (.pdf), rich text format (.rtf), simple text document (.txt), Open Document Text (.odt), and Apple Pages (.pages). Our professional layout editors will format the entire paper according to our official guidelines. This is one of the highlights of publishing with Global Journals—authors should not be concerned about the formatting of their paper. Global Journals accepts articles and manuscripts in every major language, be it Spanish, Chinese, Japanese, Portuguese, Russian, French, German, Dutch, Italian, Greek, or any other national language, but the title, subtitle, and abstract should be in English. This will facilitate indexing and the pre-peer review process.

The following is the official style and template developed for publication of a research paper. Authors are not required to follow this style during the submission of the paper. It is just for reference purposes.

Manuscript Style Instruction (Optional)

- Microsoft Word Document Setting Instructions.
- Font type of all text should be Swis721 Lt BT.
- Page size: 8.27" x 11'", left margin: 0.65, right margin: 0.65, bottom margin: 0.75.
- Paper title should be in one column of font size 24.
- Author name in font size of 11 in one column.
- Abstract: font size 9 with the word "Abstract" in bold italics.
- Main text: font size 10 with two justified columns.
- Two columns with equal column width of 3.38 and spacing of 0.2.
- First character must be three lines drop-capped.
- The paragraph before spacing of 1 pt and after of 0 pt.
- Line spacing of 1 pt.
- Large images must be in one column.
- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
- The names of second main headings (Heading 2) must not include numbers and must be in italics with a font size of 10.

Structure and Format of Manuscript

The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

a) A title which should be relevant to the theme of the paper.
b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
d) An introduction, giving fundamental background objectives.
e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition, sources of information must be given, and numerical methods must be specified by reference.
f) Results which should be presented concisely by well-designed tables and figures.
g) Suitable statistical data should also be given.
h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
j) There should be brief acknowledgments.
k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and suggestions to improve brevity.

Format Structure

It is necessary that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

All manuscripts submitted to Global Journals should include:

Title

The title page must carry an informative title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) where the work was carried out.

Author details

The full postal address of any related author(s) must be specified.

Abstract

The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Keywords

A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy: planning of a list of possible keywords and phrases to try.

Choice of the main keywords is the first tool of writing a research paper. Research paper writing is an art. Keyword search should be as strategic as possible.

One should start brainstorming lists of potential keywords before even beginning searching. Think about the most important concepts related to research work. Ask, “What words would a source have to include to be truly valuable in a research paper?” Then consider synonyms for the important words.

It may take the discovery of only one important paper to steer in the right keyword direction because, in most databases, the keywords under which a research paper is abstracted are listed with the paper.

Numerical Methods

Numerical methods used should be transparent and, where appropriate, supported by references.

Abbreviations

Authors must list all the abbreviations used in the paper at the end of the paper or in a separate table before using them.

Formulas and equations

Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

Tables, Figures, and Figure Legends

Tables: Tables should be cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g., Table 4, a self-explanatory caption, and be on a separate sheet. Authors must submit tables in an editable format and not as images. References to these tables (if any) must be mentioned accurately.

Figures

Figures are supposed to be submitted as separate files. Always include a citation in the text for each figure using Arabic numbers, e.g., Fig. 4. Artwork must be submitted online in vector electronic form or by emailing it.

Preparation of Eletronic Figures for Publication

Although low-quality images are sufficient for review purposes, print publication requires high-quality images to prevent the final product being blurred or fuzzy. Submit (possibly by e-mail) EPS (line art) or TIFF (halftone/ photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Avoid using pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings). Please give the data for figures in black and white or submit a Color Work Agreement form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution at final image size ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs): >350 dpi; figures containing both halftone and line images: >650 dpi.

Color charges: Authors are advised to pay the full cost for the reproduction of their color artwork. Hence, please note that if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a Color Work Agreement form before your paper can be published. Also, you can email your editor to remove the color fee after acceptance of the paper.

Tips for writing a good quality Social Science Research Paper

Techniques for writing a good quality homan social science research paper:

1. Choosing the topic: In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

2. Think like evaluators: If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

3. Ask your guides: If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

4. Use of computer is recommended: As you are doing research in the field of homan social science then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

5. Use the internet for help: An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.



6. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

7. Revise what you wrote: When you write anything, always read it, summarize it, and then finalize it.

8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.
Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

19. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

20. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

21. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

22. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.



© Copyright by Global Journals | Guidelines Handbook

Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.



© Copyright by Global Journals | Guidelines Handbook

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."



Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.

Criterion for Grading a Research Paper (Compilation) by Global Journals

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

INDEX

A

Altruistic · 1, 2
Amenities · 1, 11
Arbitrarily · 3

B

Bolstered · 3

C

Cohesion · 6, 9, 11
Covariate · 2

D

Deficit · 3, 4
Depletion · 3
Discrepancies · 2
Dwelling · 3, 7
Dwindled · 2

E

Egoistic · 1
Exacerbating · 4, 9

G

Granular · 1, 5,
Grappling · 3, 4

I

Interpretative · 5
Intricate · 3, 4
Intrinsically · 5, 7

L

Leverages · 3, 11

M

Meticulously · 3

P

Paucity · 1
Peculiarly · 4
Persistent · 3
Pervasive · 3
Plausible · 4
Prerequisite · 5

R

Repercussions · 1, 3
Revealed · 2, 4

S

Scrutiny · 1, 2
Solidarity · 6, 1
Strenuous · 3

T

Turmoil · 4

U

Unleashed · 1

W

Worsened · 4



save our planet



Global Journal of Human Social Science

Visit us on the Web at www.GlobalJournals.org | www.SocialScienceResearch.org
or email us at helpdesk@globaljournals.org



ISSN 975587

© Global Journals