Exploring the Relationship Between Population Dynamics, Migration Patterns, and Sustainable Socio-Economic Development in Butuan City, Philippines: A Resource-Based Theory Perspective

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ABSTRACT

This study explores the interconnection between population dynamics, migration patterns, and sustainable socio-economic development in Butuan City, Philippines, using the Resource-Based Theory (RBT) and Demographic Transition Theory (DTT) as guiding frameworks. Employing a mixed-methods explanatory research design, the study combines quantitative data from 154 respondents across government, private, and academic sectors with qualitative insights from 51 focus group discussion participants. Descriptive statistics and Pearson correlation analysis reveal that migration is a primary driver of Butuan's population growth, exacerbating pressures on housing, education, healthcare, and infrastructure. Though migration correlates positively with economic activity, it also exposes inequities in spatial planning and labor market inclusion. A proposed Urban Resilience Framework rooted in RBT and supported by DTT emphasizes the importance of strategically leveraging human capital, institutional capacity, and geographic assets to convert demographic growth into equitable development. The findings underscore the need for inclusive, data-driven governance that integrates demographic trends into urban planning.

Keywords: Population Dynamics, Migration, Inclusive Growth, Urban Resilience, Sustainable Development, Demographic Transition Theory

INTRODUCTION

Butuan City, a regional center in the Caraga Region of the Philippines, has experienced rapid demographic and urban expansion, transitioning from a timber-based economy to a dynamic hub of commerce and governance. Its population growth, from 309,709 in 2010 to 372,910 in 2020, is fueled largely by internal migration. While economic indicators show progress, public infrastructure and services remain under strain. To address these trends, this study applies Resource-Based Theory (RBT) and Demographic Transition Theory (DTT) to evaluate how Butuan can leverage its internal capacities to transform demographic pressures into developmental assets.

REVIEW OF LITERATURE AND STUDIES

Demographic transitions globally indicate that shifts in fertility, mortality, and migration can reshape socio-economic trajectories. Bloom et al. (2013) and Lee & Mason (2016) underscore the potential of human capital gains during demographic transition phases. Mapa et al. (2015) emphasize the Philippines' position within the window of demographic opportunity. Tacoli et al. (2015) and Kundu & Dutta (2021) argue that unplanned urbanization often deepens spatial inequalities. Locally, Butuan's CLUP and CDP stress integrating demographic trends in planning. However, literature applying RBT in urban contexts remains limited. This study bridges that gap by aligning RBT with DTT to enhance urban resilience discourse.

Framework

The conceptual framework combines Resource-Based Theory (Barney, 1991) and Demographic Transition Theory (Notestein, 1945). RBT focuses on leveraging valuable, rare, inimitable, and non-substitutable

resources such as labor, institutions, and geography. DTT contextualizes population changes across phases of demographic development, providing a lens to anticipate socio-economic needs. Together, these frameworks offer a comprehensive understanding of how cities like Butuan can manage migration-driven growth.

Objectives Of The Study

To determine the trends in population growth and migration in Butuan City.

To evaluate changes in key socio-economic indicators over time.

To examine relationships between demographic patterns and development outcomes.

To develop a framework for sustainable urban development grounded in RBT and DTT.

METHODOLOGY

This study utilized a mixed-method explanatory approach. Surveys were conducted with 154 respondents from key sectors, and focus group discussions involved 51 participants. Quantitative data were processed using frequency, mean, and Pearson correlation analysis. Qualitative data were coded thematically. Secondary data were sourced from the Philippine Statistics Authority, local development plans, and government records. Visual data representations, including charts on population trends and migration flows, were integrated to improve accessibility for stakeholders.

RESULTS AND DISCUSSION

The data show that Butuan's population growth is predominantly driven by internal migration, increasing strain on urban services. A Pearson correlation of $r=0.76$ ($p<0.01$) was observed between migration and economic indicators such as new business registrations. While migration boosts economic participation, qualitative insights reveal mismatches between population growth and service provision.

Figures illustrate the disparities in service access between urban core and peri-urban areas. Education, health, and housing systems lag behind population increases. Planning remains largely reactive, lacking integration of demographic forecasts. The application of RBT identifies Butuan's underutilized resources—notably human capital and institutional potential. DTT expands the analysis by situating Butuan in the late transition phase, where dependency ratios decrease but urban pressures rise.

Overall, findings indicate a critical need for anticipatory governance and cross-sectoral collaboration. Synthesizing the local context with broader theoretical debates shows that without strategic planning, migration may deepen inequality despite economic gains.

CONCLUSIONS

Migration significantly contributes to Butuan's demographic growth, compounding stress on services.

Economic benefits from migration are evident, yet they remain unevenly distributed.

There is a strong correlation between migration and development outcomes, but service gaps persist.

RBT and DTT provide useful lenses to understand and guide urban responses to demographic change.

Strategic, evidence-based planning is essential for sustainable, inclusive development.

RECOMMENDATIONS

Establish a data-driven urban development strategy incorporating demographic and migration forecasts.

Expand the city's institutional planning capacity through training and inter-agency collaboration.

Use RBT to prioritize investments in education, workforce development, and innovation hubs.

Adopt DTT-informed policies to address the evolving needs of different population segments.

Create dashboards and spatial tools to visualize demographic data for planners and stakeholders.

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