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**Migration, Urbanization, and the Dynamics of Sustainable Community
Development: Opportunities, Pressures, and Policy Pathways**

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Abstract: This study investigates the interrelated dynamics of migration, urbanization, and sustainable community development across 20 rapidly urbanizing cities and 20 rural source communities. We employed a comparative cross-sectional design with 1,176 valid responses collected from migrant households, long-term urban residents, local officials, and planners through structured surveys, interviews, and focus groups. The analysis integrated multiple indices, including the Urban Sustainability Index and Community Development Index, and applied statistical methods such as multiple linear regression, Pearson correlation, and structural equation modeling. Our results reveal that sustainable community development outcomes improved substantially, with a 20.9% increase in employment stability and a 24.3% increase in public service access. The regression model identified infrastructure accessibility ($\beta = 0.43$, $p < 0.001$), employment stability ($\beta = 0.39$, $p < 0.001$), social integration ($\beta = 0.34$, $p < 0.001$), and community participation ($\beta = 0.28$, $p = 0.002$) as significant predictors, accounting for 71.8% of the variance. Correlation analysis further showed a strong positive association between infrastructure accessibility and sustainable development ($r = 0.79$, $p < 0.001$). Nevertheless, major pressures persisted, including affordable housing shortages (41.8%), urban unemployment (35.6%), and infrastructure strain (38.4%). The structural equation model demonstrated good fit (CFI = 0.96, RMSEA = 0.046). This research contributes novel empirical evidence by simultaneously quantifying both the opportunities and constraints inherent in demographic transitions. The findings underscore the necessity of integrated urban planning, inclusive migration policies, and community-based governance to foster balanced and resilient sustainable development.

Keywords: Migration, Urbanization, Sustainable Community Development, Urban Policy, Socioeconomic Development

Introduction

In the twenty-first century, a period characterized by unprecedented and massive demographic and spatial shifts, rapid urbanisation is a major characteristic of the times (Pacione, 2009), while large-scale human movements have become significant. This is particularly true in the developing part of the globe which is experiencing the highest rate of urbanisation in the world today (Pacione, 2009). A lack of economic opportunities, climatic changes, disasters, crises and all sorts of natural forces push millions of people into the cities while the available jobs, and public services, drawn by the possibilities offered by a cluster, pull them in. The demographic shift can fuel economic growth and innovation, while also creating a major strain on the existing urban infrastructure, housing market, environment and social cohesion (Farrell 2017). Appreciating the interconnection and physiology of these dual outcomes – migration and urbanisation, and opportunities or formidable challenges – is important to understand when developing sustainable community development strategies (Adger et al., 2024).

While a lot of work has been carried out on both individual areas – migration and urbanisation, and sustainability – there is a lack of studies dealing with their interlinkages and systemic interdependencies in a joint analytical approach (Keiner, 2016). Until now, many of the studies are macro-economic focused, or consider the level of impact at the community level to be a secondary one (Jones, 2017). Besides, some debates are raised related to whether the presumed linear benefits (better services, higher lives) of urbanization are getting lived out by all and especially by the voiceless migrant population (Theodore & Martin, 2007). The interrelationships between governance systems at the national level, planning capacities of municipalities and unique aspects of community life are more complex, and so far have received little attention of analysis leading to policy responses that are sometimes disjointed, unaware of the underlying factors contributing to an urban pressure (Richardson, 1981). A more holistic approach - combining opportunities and constraints of demography change - is therefore much needed.

This research had the aim in order to transcend the description and analyse them in causal/correlational level. Our arguments were centered on the premise that migration and urban sprawl will not only exert major impacts on the accessibility of housing, environmental resources and social integration, which when ignored affect the sustainable development of respective communities, but also improve the accessibility of jobs, infrastructure and public services. This study explicitly sought to address these dual outcomes, therefore, in a series of diverse rapidly urbanising cities and with a rural based communities (Worrall et al., 2017). The relevance of the multiple methodological approaches – structured household surveys, key informant interviews and spatial analysis – and the use of urban and rural comparative cross sectional design offers a fresh and nuanced analysis of the literature on migration and sustainability (Ogwu, 2019). The importance of this piece of work is that improvement and strain are quantified in one analytical model, and then used separately as an input in urban planning to achieve a balance and integration between the two.

This study contributes to the body of knowledge of community participation; the dimensions of community participation, social integration and perceptual indicators of wellbeing (Idowu,

2013), have not been sufficiently sampled. We have developed and validated compound indicators of different aspects of development outcomes, such as the Urban Sustainability Index and the Community Development Index and the Social Integration Index. Literature on urbanization trends, drivers of migration and the framework of sustainable development has been critically discussed in section 2. The descriptions of the comparative cross sectional study design and sampling procedures, instruments used for the collection of data and procedures for data analysis used in this study are given in section 3. The results of the empirical analysis, for example: descriptive statistics, regression model, correlation analysis, and output from the structural equation modeling, are reported in Section 4. The findings of this study are summarised and implications for policy making and urban governance discussed in Section 5 where the limitations of the study are also recognised. Finally, Section 6 presents the basic contributions of this paper and outlines some possible directions for future investigations.

Literature Review

Migration, urbanisation and development have participated in a range of discussions from different disciplinary disciplines and there are still partial discussions about unfitting concepts and empirical debates. The economic potential of the city and the potential of urbanisation for population concentration has been a major preoccupation of the mainstream urban coverage in urban policy literature for decades and urbanisation it is thought is really all about 'productivity, innovation and better services delivery' (Cohen, 2006). Rural-urban migration is one of the major drivers of urbanisation in developing countries, accounting for almost 90 per cent of the anticipated global urban growth according to Cohen (2006). But these growth narratives are often incomplete from a distributional point of view when taking account of the backstop of the housing market and out of the frameworks of social protection and participatory governance, often found by migrants (Murillo 2017).

Sustainable community development is a theoretical concept with numerous changes over the past 20 years. In several most recent concepts, the social dimension and social equity has been integrated as well as the areas of resource efficiency and environmental sustainability (Keiner, 2016). A multi-faceted nature has been further institutionalized by the United Nations Sustainable Development Goals, in particular SDG 11 on sustainable cities and communities. However, the challenge with implementing sustainable community development in the context of rapid migration is the operationalization of traditional indicators and measures, which are not always reflective of the lived reality of rapidly-migrating communities and the adaptive capacities of host communities (Auwalu & Bello, 2023).

Lots of literature, which looks at the pressures of rapid urbanisation. One of the recurring issues in the debate is the world of housing affordability, reduced cost to build with, informal settlement / slum condition are continuously being reported (Idowu, 2013) in the important fast growing cities. In Lagos, Nigeria, for example, it is estimated that over 60% of urban dwellers reside in informal settlements, owing to the demand for housing in the city, resulting from migration, and an inadequate response to this demand (Auwalu & Bello, 2023). Likewise infrastructure stress, in particular in areas like water supply and sanitation and transportation, has been well noted as a major limitation in sustainable development in fast urbanizing settings

(Cohen, 2006). The problems of environmental pollution—air and water pollution, further compounds this situation with low income migrant population being more affected and often located in the peri-urban area (Ogwu, 2019).

Meanwhile, there have been studies on the social integration and the community's cohesion, giving insights into the non-material aspects of sustainable development. Whereas migrant populations are prone to social exclusion, discrimination and reduced access to community networks, which may compromise their longer term well-being and their long-term commitment to investing in development in their local communities (Theodore & Martin, 2007). Fois and Forino (Theodore & Martin, 2007) have noted that migrant civil society organizations might be significant in terms of access and enabling collective action as an intermediary group. However, these have little power in formal governance processes and fall far short of being able to sway urban development agendas. Beyond that, there are family dynamics related to migration, e.g., separation and family change, that are usually not addressed in planning approaches (Trask, 2022).

The literature also shows that there are significant gaps of methodology. A great deal of the existing literature uses national-level data which belies significant intra-urban and intra-community variation (Farrell, 2017). The size of the singles dimension quantitative analyses can be undertaken on only one of the dimensions, in this case, either on economic growth or on addressing the housing shortage, without systematically analysing interconnections between a number of sustainability indicators. Qualitative case studies can add depth, however, but have limited transferability to other urban settings (Murillo, 2017). Moreover, little empirical research has taken into account opportunities and constraints of measurement on a single approach (see Worrall et al., 2017). This is a serious issue, as the producer-consumer problem and because policy attempts based on incomplete information can make matters worse, rather than better.

The present study addresses these gaps: In this study, the improvements and stresses on a number of sustainability dimensions are quantified simultaneously in a comparator-cross sectional design. Although migration and urbanisation have been understood so far as either good or bad, the bulk of the researches in this work has tried to take into account the twin nature of the phenomenon. By combining the household level survey and community level institutional parameters and generating the respective Combined Indices with all economic, social and environmental and infrastructural aspects, we provide a more multifaceted and evidence-based picture to document the sustainable community development in the migration affected areas of the cities. Unlike most prior studies, this is an integrated approach and it is the most important methodological and conceptual innovation of the current research on context.

Methodology

This section explains the research design, sampling, collection and analysis of the data in order to answer the research question – Relationship between Migration, Urbanisation and Sustainable community development. A methodological approach was designed to be broad

and wide-ranging covering opportunities and constraints arising from the different demographic transitions occurring in rural and urban contexts.

Study Design and Sampling

Comparative cross sectional research design has been used in this study to look at the interrelationships between migration, urbanization, sustainable community development at a number of sites simultaneously. This design was chosen because it would allow us to have one point in time that measured results from a variety of urban and rural settings, and allows us to systematically compare them to identify patterns that rise above the local ones. The study covered 20 cities, all of which are going through a rapid process of urbanisation, and 20 rural communities from which migrants moved, strategically selected to include a variety of geographical and economic poles, migration trends, etc. Geographical locations were spread out to give us natural variation in terms of contextual conditions, such as the potential capacity for local governance and infrastructure and/or environmental conditions, so that we could be guided toward external validity of findings.

To ensure the representation of the participants in key demographic and occupational groups in a way proportional to the population, stratified random sampling was used. Sampling frame population consisted of 1,200 individuals (migrant households, long-term residents of urban areas, local government officials, urban planners and community leaders in general). Stratification was based on administrative areas, population density and migratory status, with each group being proportionate to each strata to minimize the possibility of selection bias. Random sampling was done within each stratum for structured household survey and key informant interviews (KII).

Data Collection Instruments and Variables

The primary data was collected using multiple complementary instruments which explored the multidimensional dimensions in sustainable community development. Structured household surveys were conducted with migrant households and also long-term urban residents to elicit their responses on their housing situation, work and employment, income levels, access to healthcare services and educational institutions and their perceptions of social integration. Key informant interviews were conducted with local government officials, urban planners and leaders of the communities to collect institutional perspectives on infrastructure planning and policy implementation, as well as community governance. Physical conditions and environment quality were captured in field observations on the study sites and qualitative enhancement and understanding on the dynamics of community participation and social cohesion was gathered through focus group discussions. Other secondary data such as the national census, data on urban development plans, migration and data from the municipalities were also collected to get a larger picture of the demographic and policy information which can be compared with the primary data.

All of the variables collected included population, economic, social and environmental aspects. Individual-level variables included the household income, employment status of the subjects, age, gender, educational qualification and migration status of the individual subject. Household

level variables included aspects of housing, healthcare, and education as well as the availability of public transportation. At the community level these were: environmental quality, social integration indicators, infrastructure accessibility and rates of community participation and urban sustainability indicators. This multi-level is done in a way that enabled us to consider individual experiences and community-level outcomes in an integrated analytical framework.

Data Preprocessing and Quality Assurance

Upon data collection, extensive data preparation techniques were applied on the collected data to ensure data quality and thus analytical validity. Those who did not answer the questions were excluded from the analyses and missing values on continuous variables were filled with the variate's median, so as to retain the media properties of the variables and reduce bias. Data coding and validation was done to achieve consistency between the instruments and sites of the study. The Interquartile Range Method was used to identify outliers: values less than the first quartile - 1.5 x the IRQ and values greater than the third quartile + 1.5 x IRQ were noted for further investigation and possible exclusion from analysis. All the continuous variables were differentiated following Min–Max normalization to bring them to the same scale to compare them all in the context of the different index types. Cronbach's Alpha was used and 0.70 set as cut-off, for internal consistency of the scale items for composite indices for reliability purposes. Once the pre-processing was completed 1,176 responses were used (with a retention rate of 98.0%).

Index Construction and Analytical Methods

A conceptual framework of sustainable community development was developed in a multi-dimensional perspective, and seven composite indices corresponding to projections of this multi-dimensional perspective were constructed (1) Urban Sustainability Index, (2) Community Development Index, (3) Social Integration Index, (4) Infrastructure Accessibility Index, (5) Environmental Quality Index, (6) Employment Stability Index, and (7) Household Well-being Index. The Cronbach's Alpha coefficient value of each index was greater than 0.75 with the internal consistency of each being satisfactory: each constituent was standardized and subsequently combined by equally weighting in each index.

A multi-method approach was used for the statistical analysis considering direct relations as well as causal frontiers. Descriptive data analysis of all the variables was done to know the distribution patterns and describe the sample. Pearson correlation analysis was performed to explore bivariate relationships between indices and check for possible collinearity. Multiple linear regression was used to determine which of the independent variables (infrastructure accessibility, employment stability, social integration, community participation and demographic controls) were significant predictors of the dependent variable (Urban Sustainability Index) for sustainable community development. One-way ANOVA and chi-square test were used for the group differences analysis of the migration status category and urban-rural context. AMOS software with chi-square per degree of freedom, comparative fit index, Tucker–Lewis index and root mean square error of approximation methods were used to set the model and to evaluate the model fit, respectively, through structural equation modeling method.

Results

The results obtained from the collected data are presented in the next subsection, starting with the description of the participant characteristics, then moving on to the analyses made on the developments of migration phenomena and on the sustainable development and finally the statistical relations between the key variables are presented. Results are presented first to give a demographic and context of the findings, then the improvements and ongoing problems are summarized, then the results of the regression, correlation, and structural equation modeling carried out to test the key hypotheses of the study.

Participant Characteristics

The data cleanliness process described in methodology eliminated a part of the data, and 1176 number of valid responses remained to be analysed and reported for the final results. Of this sample, 57.4% indicated that they were migrant households while the remaining 42.6% indicated that they were long-term urban dwellers. This distribution reflects a good balance between the two population groups and makes it possible to make comparisons between status groups. The average age of the respondents of the sample studied was 38.9 years, meaning that the majority of the studied age group was the working age group, whose economic motivations are usually cited as the reasons for rural-urban migration (Cohen, 2006).

Demographic features of employment of sample are also described for the population of the study. The total sample revealed 71.6% of population was occupied showing that the study areas population had economic involvement in the urban labour market. But this strong employment figure is not necessarily to be taken as proof of stability and/or quality employment, that can be seen from subsequent analyses that are carried out on the measurement of Employment Stability Index (ESI), where it can be observed that migrant groups and non-migrant groups have different levels of job security. With regard to access to public utilities, 78.4 % of the households reported access to basic public facilities such as health and education centres, potable water source. The relatively high access rate indicated that in some of the study sites there might have been a similar level of provision in infrastructure to support this population growth, yet this is not analysed at this descriptive level.

Migration patterns are also reflected in demographic characteristics of the sample. The average age of the migrant households was slightly lower than for the long-term urban residents, reflecting the selection of migration which tends to pick out younger population of working age in search of opportunities (Theodore & Martin, 2007). There was a slight difference in proportion of those who had completed tertiary education between migrant households and long-term, urban residents that was consistent with a structural disadvantage in access to education in the rural places of origin. Both overall groups differed significantly in the distribution of household income, showing the different economic experiences within these general migration groups.

The characteristics of the sample can thus be used as a foundation to understand the effect of migration and urbanisation on the sustainable community development outcomes desired. In fact, this almost unique mix of a large share of migrants, of working age population profile, of

high employment and of relative accessibility to public services tells the story of one of the dynamic and uneven urban transformation. These background variables form the basis for the subsequent analyses of migration trends, community development outcomes and statistical relations to be used to test the study's key assumptions.

Migration and Urbanization Trends

Based on the analysis of push and pull factors of the sample, it is shown that as the economic factor is the dominant factor in creating a flow of migration. Migrant households' responses on the primary reason for migration revealed that, in line with the theory of push/pull approach to migration, wage differentials and labor market situation in the cities were the dominating pull factors as 63.8% of those surveyed said they had migrated to find work. This is definitely a massive economic reason because the cities are the home of formal and informal jobs (Haas et al., 2019) and the cities are also at the core of agglomeration economies in rapidly urbanizing regions.

Beyond employment, improvement in education due to better educational institutions for oneself or for the children is of secondary importance and was mentioned by 18.5 per cent of the households. This ratio is indicative of the importance of cities as enablers in nurturing human capital with the concentration of schools, universities, and vocational training institutions, giving a unique pull towards the cities to those families who want to move up the mobility chain. As such, the educational facility, being placed in urban centres as opposed to the source communities in rural areas continues to fuel the migration in search for opportunities that can enable them pursue learning based careers. The non-staged nature of migration is in line with recent attempts to understand migration as a multi-dimensional phenomenon, not necessarily influenced by immediate economic considerations, but also by human capital investment (Mazumdar, 1987).

Another 11.7% of migrant households attributed the decision to leave as primarily because of climate change where climate change has become a primary factor for migration. Bright examples of this are pressures like degradation of agricultural area due to extended droughts and extreme weather and coastal salinisation with impacts on rural livelihood. This figure of 11.7% is smaller than the economic and educational causes, but is a non-trivial and perhaps an increasing part of climate induced migration. The observation is important for an effective sustainable community development planning as climate migrants can have specific vulnerabilities in the cities they are migrating to, and could lack specific social networks or do not have the desired skills required by urban job markets, thus necessitating targeted responses for successful integration (Gómez, 2013).

The other migrant households (6.0%) arrived for other socioeconomic reasons, such as to join family members, to marry, either seeking health services or in order to avoid conflict. While relatively small in terms of numbers, the 'other' category encompasses a variety of individual and collective influences that affect flows of migration, which are often interrelated. All of the above combine to indicate that migration from rural to rapidly urbanising regions is mainly enticed and hinge on perceived or actual differences in either economic or education opportunities between the source and destination. The overall picture is important for the

perspectives of sustainable community development, because it indicates that urban growth can bring benefits to (urban out-migrants) in terms of higher levels of employment and access to education, but also puts stress on the cities in terms of housing, infrastructure and social services. The data evidence is fine-grained and demonstrates that urbanisation is often accompanied by many opportunities but also systematic challenges some of which need proactive and inclusive planning responses.

Sustainable Community Development Outcomes

In general, the overall aim of the study was to identify what pieces of the puzzle could be the concrete results of sustainable community development in the context of the simultaneous migration and urbanisation phenomena. Results justify the study hypothesis and suggest that yes, transition (both in terms of demographic and spatial) can provide some uplifting hope in a number of key selected indicators. These changes need to be understood in the context of the material and social pressures that also occur and were documented, showing the double sided nature of the rapid urbanisation.

Throughout the study a very positive change was seen with regard to the objectives of community development in a sustainable manner. It also saw a rise in employment stability, which is one of the key aspects of economic resilience, that rose by 20.9%. This is an improvement and indicates that for many households, migration allowed for more sustainable livelihood strategies than may have been observed in many communities of origin where livelihoods are insecure (Worrall et al., 2017). A 24.3% parallel surge in the availability of public services (education facilities, primary healthcare and potable water) substantiated this finding. In terms of geographical location it appears that these services have been concentrated around urban areas, directly profitably a large proportion of the population since the city of Australia allows for more efficient and accessible services to be provided (Pacione, 2009).

In addition to the capacity to make economic & infrastructural improvements, there was significant progress on social/community level indicators as well. The study revealed a 18.6% increase in the community participation including getting involved in neighborhood development programs, neighborhood meetings and community groups. The rise is an indicator that with the engagement of community-based organisations and local governance, social capital and civic involvement is possible within urbanising communities even when these are impacted by demographic churn (Theodore & Martin, 2007). Meanwhile, there was a slight decrease in the social distance between long-term residents and the newcomer migrant groups, in the social integration value (+19.4%). This higher inclusion is considered as an important dimension of the sustainable development (Theodore & Martin, 2007) because if it was not included, the social split could make the participation of all parties in the solutions of the problem and in the collective action unsafe. The largest gain was for infrastructure accessibility (22.7%), the fruits of investments in transportation, water and sanitation and energy distribution systems in the fast-growing urban peripheries by the municipal authorities.

Table 2. Improvements in Sustainable Community Development Indicators

Indicator	Improvement (%)
Employment Stability	+20.9
Access to Public Services	+24.3
Community Participation	+18.6
Social Integration	+19.4
Infrastructure Accessibility	+22.7

The magnitude of the gains on these five domains is relatively equal, as shown in Table 2, with a range of 18.6% gains to 24.3% gains. There even seem to be some possible 'synergy' between these gains as improvements in one area (e.g. infrastructure) might not only lead to greater access to services and employment, but to greater social inclusion and community engagement. However, there were also high stresses that occurred with these positive developments. Many of the sampled individuals said there were significant challenges militating against sustainable community development. Affordable housing shortage was noted as a critical barrier by over 40% of respondents, urban unemployment or underemployment was reported by more than a third and the significant stress on public infrastructure was noted by 38.4%. In addition, according to the participants' answers to their questions, 32.7% answered yes, when asked whether there is pollution in the environment where they live, and 27.9% answered yes, when asked whether there is inequity and exclusion in that environment. These findings affirm the overall direction of the study: migration and urbanisation may offer opportunities but they also have requirements for housing and environmental resources as well as social equity which must be satisfied in balanced development through an integrated set of policy approaches (Worrall et al., 2017). The tensions identified between aggregate improvements and the sustained systemic challenges are important contextual lenses to view the following regressions and correlations through which the strongest drivers towards positive sustainable outcomes can be identified.

Regression Analysis

The multiple linear regression analysis was used to uncover the most important determinants of sustainable community development (Sustainable community development measured by the Urban Sustainability Index as a dependent variable) building on the descriptive and bivariate findings. This was an analytical step that enabled them to analyze the contribution of the each of the factors to their overall results and to prevent the effect of the other factors working on it. Infrastructure accessibility, employment stability, social integration, community participation and demographic factors (migration, gender, education, age) were included as independent variables in the model.

The regression output indicated that the regression was strong and was a good fit. The overall model was statistically significant, accounting for a significant amount of the variance in sustainable community development (with an r^2 value of 0.718). This means that the group of predictors together shared 71.8% of the total variation of the Urban Sustainability Index scores

for 1176 respondents. The high explanatory power shows the relevance of the dimensions of sustainable community outcomes chosen for this context: end of an era of fast-paced urbanisation.

In separate analysis of each of the predictors, infrastructure accessibility showed the greatest relation with a standardized beta coefficient of . This finding proves that the physical access and quality of roads, supply of water, sanitation and energy is fundamental for the development of the overall community. That is, for the case of accessibility of infrastructures, the entire Urban Sustainability Index is expected to increase by 0.43 of a SD for each increase in infrastructure accessibility by 1 SD while all other variables are held constant. This is in line with basics of urban economic theory, which takes infrastructure as one of the key factors facilitating economic activities, the provision of services and quality of life (Pacione, 2009).

The second most important predictor was employment stability with a standardised beta value of (). As demonstrated in this strong positive association, it is not only a matter of economy, but a central component to sustainable community development that is best realized through safe and stable employment opportunities. Stable relationships and income and employment of stable jobs give families access to resources to invest in housing, education and health to increase community-level resiliency. If this is related to migration, it suggests that enhancing job security and labour market integration of migrants (and also for long term residents in cities) is very desirable for the potential gains of the urbanization process to be delivered (Cohen, 2006).

Another important predictor was social integration with a standardized beta equal to (). This discovery points to a community's social network, or social capital, as a tool for sustainable development: the networks, sense of belonging and trust amongst the members of a community is all important. More integrated communities have the added strength to tackle together shared issues, pull together resources for community-level programmes, and engage inclusively in governance (Theodore & Martin, 2007). This is very important to an understanding of the regression model as a clear indication that sustainable development is not a purely technical and economic activity, but that it is rooted in social relationships.

Community participation, (), was also a significant predictor. While it may not be as strong as the other three factors, it does seem like when it comes to the numbers, being an active citizen counts. Communities with neighborhood and project development and with residents participating in community decision making have more equitable and more respondent outcomes (Theodore & Martin, 2007). This is also a fragment of an empirical finding that benefits the planning of implementation of infrastructure solutions as a necessary (but not sufficient) step without seeing the mechanisms of how the residents contribute and co- create.

Since the demographic control variables: age, gender, education and migration status, did not reach statistical significance in the final model, effects of the core variables (infrastructure, employment, social integration, community participation) were strong for all cross-sections of the population. The strength of the individual beta coefficients in total justifies, from the knowledge on importance of the study, the conceptual framework of the study. They highlight sustainable community development in response to an amalgamation of physical capital,

human capital and social capital in a constantly expanding urban landscape. Moreover, the results have immediate policy implications: investments and intervention should be committed, where possible, to these four areas to ensure the best possible gains can stem from urbanization and the pressures it poses can be reduced. Accessibility- and employment-focused priorities (and respectively) suggest that investment might start in the development and reinforcement of the hard infrastructure and the labour market for the community's sustainability. However, because of the inclusion of social integration and community participation, there could be a danger of a technocratic solution and so, social policies that focus on inclusive and inclusion in the social community are needed to build 'togetherness and engagement'. Based on the results of this finding, the next correlation analysis and the structural equation model will be developed to see the interrelationship between these variables.

Correlation Analysis

Pearson correlation analysis was further performed to investigate the interrelationships between the important variables that were discovered in the regression analysis. This is an additional analysis based on the quantitative measure of the nature of the bivariate relationship in the magnitude and direction with no imposed causal directionality on the two measures – this provides about the nature of underlying co-variation of the dimensions of sustainable community development. The variables in the matrix of the correlations included the Urban Sustainability Index, Infrastructure Accessibility Index, Employment Stability Index, Social Integration Index, Community Participation Index, and Household Well-being Index.

The correlation coefficient (.) obtained between the infrastructure accessibility and sustainable community development is statistically significant and good enough according to the benchmark. This result was confirmed by the regressive result which allocated infrastructure accessibility as the most powerful predictor to the Urban Sustainability Index. This correlation is fairly strong: communities with higher scores on the infrastructure item are also more likely to have higher scores on the overall community sustainability item. This relationship alone makes it possible to consider physical infrastructures – transportation, water and sanitation, energy – as one of the fundamental issues of sustainable urban development; their development is fundamental, and they are essential in order to provide the economic activity, access to services, and improvement of quality of life (Pacione, 2009).

Further positive correlations regarding social integration with some other sustainability dimensions obtained were also strong. In particular, social integration had positive correlation with well-being of households and community resilience. The links with household well-being indicate that individuals who are more socially engaged (trust, social networks and sense of belonging) experience a higher level of well-being in their home, in their income situation and overall. This finding adopts a theoretical perspective that social capital also serves as a principal resource for human well-being by providing access to information and networks of supports and collective goods which enable improvements in individual/household well-being (Theodore & Martin, 2007). Second, it highlights the strong relationship between social integration and resilience of communities, indicating that the linked up and integrated communities are more prepared to shocks, be it economic, environmental or social. This

linkage is particularly pertinent in the urban context in which rapid urbanization is occurring with a need for frequent adaptation and change of communities to meet the requirements of evolving populations, increased pressures on infrastructure and the environment draining away (Theodore & Martin, 2007).

All of the other important indices were positively correlated at moderate to strong levels with employment stability. Spearman rank correlation was carried out, which had a positive association with Urban Sustainability Index and Household Well-being Index. As the following correlations indicate, there is close correlation between secure jobs and any one household's welfare and with the general development of the community at large. Secure jobs are likely to foster more prosperous local economies and increase tax revenues for a community, which can be put toward social spending and reduce the levels of poverty and social exclusion within a community. The family level benefits of being employed directly relate to the financial resources to invest in family housing, education and health which leads to the improvement of well-being (Cohen, 2006).

There was a moderate positive correlation between the participation of the community and the Urban Sustainability Index and between the community and social integration. Last, but not least, the link between participation and sustainability supports and confirms that a high level of civic involvement is connected to a higher number of successful deliveries in community development - this may be due to participation contributing to greater accountability, responsiveness, and matching local resources with public investments. However the moderate correlation between participation and social integration implies that the two aspects of social capital are mutually reinforcing: people live in more integrated communities are more likely to participate in collective action, and those who participate in collective action are more likely to be integrated within communities. (Theodore & Martin, 2007).

The connection to the infrastructure within a local area seems somewhat weaker to be positively correlated with the degree of social integration, and it is still statistically significant. This discovery may indicate that a well-developed physical infrastructure can help to foster social interaction and integration through provision of public places, links between neighborhoods and accessing community facilities. But as demonstrated in the moderate strength of the correlation, infrastructure alone is not enough to ensure social cohesion and included governance, anti-discriminative policies as well as community building initiatives are all also needed (Theodore & Martin, 2007).

Correlation analysis also showed that there was a significant positive relationship between Employment Stability Index and Infrastructure Accessibility Index. This correlation is potentially indicative of the two-way nature of the link: investing in infrastructure helps create access to jobs in construction & maintenance, and secure jobs help households to create demand for and secure investments in infrastructure. These communities likely also have the opportunity to draw in a wider range of economic activities, which will help to sustain employment (Pacione, 2009).

The overall results of the correlation analysis provide good support for the interrelationships that are considered to be positive and strong relationships between the sustainable community

development dimensions. High correlation values between the accessibility infrastructure and infrastructure () imply that enhancements in accessibility infrastructure are accompanied by improvements in infrastructure as well; high correlation values between accessibility infrastructure and social integration and household well-being () suggest that if accessibility infrastructure is improved, well-being and social integration will also be improved; and high correlation values between social integration and infrastructure and community resilience () indicate that if improvements are made on the aspects of accessibility infrastructure and social integration and household well-being, improvements are expected in related aspects of community resilience as well. Therefore, policy and planning have to be aware of the findings identified and interventions aiming at one dimension, such as investment in infrastructure may have social, economic and environmental advantages. The strength of some of these correlations, however, also suggests that automatic synergies should not be expected; policies that directly focus on social integration and community participation also seem to be important to fully realize the gains from infrastructure investments. The results of the correlation analysis suggest that all the evidence used in this study reinforce the general idea expressed in this study: sustainable community development as per result of migration and urbanisation is multifacet, interconnected, therefore perceptions and policy interventions should be of an integrated nature.

Structural Equation Modeling

The researchers combined the results of their regression and correlation and were also interested in examining the hypothesized causal pathways between the core dimensions of sustainable community development and also utilized Structural Equation Modeling (SEM) using the Amos program. The method is suitable to test complex theoretical models in which there are several latent variables and the directionality of the causal model can be tested, and that the measurement and structural components can be tested simultaneously. Following theoretically reasonable latent independent variables, infrastructure accessibility, employment security, social integration and community participation, and pathways between these latent independent variables and the latent dependent variable of sustainable community development were estimated, and associations of error terms (where theoretically reasonable) were also estimated.

The structural equation model showed good fit to the observed data based on various indices. The chi square per degree of freedom (χ^2/df) was 2.13, which is within the reported range ($\chi^2/df = 2.0-3.0$) that is considered to indicate that a model fit the data well. The CFI is 0.96 above acceptable fit value of 0.95. This indicates that the fit of the proposed model could be better than a model without any relationship between the variables (that is, a null model). Then, the Tucker–Lewis Index (TLI) of 0.95 also fell within the range for a good fit which further indicated that the model specification was adequate. The Root Mean Square Error of Approximation was 0.046, below the cut-off of 0.05 for excellent fit to the population covariance structure, signifying that the model was fairly close to the population model. All of these fit indexes indicate that the structural equation model is a valid model of the relationships between the important variables found in the analysis of the previous fit indexes.

Each of the paths in the model was statistically significant and in the expected positive direction. The infrastructure (accessibility) had the largest standardized path coefficient (0.45), and this coefficient was also significant ($p < 0.01$); this is consistent with the result of regression finding that was the strongest predictor. It could be seen that the direct effects of ‘employment stability’ and ‘social integration’ were 0.38 () and 0.33 (), respectively. The direct effect of community participation was also significant (0.26) but not quite as large as the other pathways. These standardized path coefficients are quite comparable with the beta weights obtained in the multiple linear regressions and thus provide converging evidence from two analysis techniques that the relative importance of these four predictors are similar.

The structural-equation model could also be importantly used to estimate indirect effects and decompose the total effects. For example infrastructure accessibility was indirectly correlated with social integration because it indicated a positive relationship with the social integration; and that improved physical accessibility may explain the improvements in social integration, which related in turn with the sustainable community development. Similarly, the impact of social integration was indirect; more broadly integrated communities might be more inclined to engage in community organization that is good for the community. Although these indirect pathways are not direct, they give insight to the pathways that are used for the predictor variables.

Further, the structural equation model provided the loadings of a latent variable (factor) on its indicators, therefore the reliability of measurement components was confirmed. The results indicated that the factor loadings of all the variables under observation were above 0.60 with statistic significance of . acceptably showing that the constructs under observation were well captured by the variables. The findings showed that the extracted variables had a factor loading of > 0.60 and that they were statistically significant at < 0.05 which confirmed that the constructs: infrastructure accessibility, employment stability, social integration, community participation and sustainable community development were well extracted. This supplements the validity of the measurement model presented in this study which is an index based measurement.

The overall results provide supports for the conceptual framework without means of structural equations by which physical, economic and social capital are influences on sustainable community development with rapidly urbanizing areas. This good model fit provides empirical support to the tested pathways and the standardized path coefficients behave as indicators to the causal steps – infrastructure accessibility, and job stability are the first two. The model offers not only analytical power beyond that of regression/correlation but also explores all possible model relationships, offers an index, and offers solid evidence for making policy recommendations with respect to the issue of measurement error. It follows that the results of the three models (correlation, regression and the structural equation modeling) converge to provide a good base for the forthcoming discussion of implications and recommendations.

Discussion

The current results have several theoretically relevant contributions to make on the issue of sustainable community development in the context of the rapidly-urbanizing regions. The

results also indicate that Accessibility of infrastructure, job security, social integration and engagement of the community are all significant, and their respective pathway coefficients in the Structural Equation Model are significant for the variations in sustainable development outcomes and constructions of these. This evolution contributes to substantiate the idea of the sustainable urbanisation process not having an unidirectional evolution while being a product of the interaction of physical capital, human capital and social capital (Pacione, 2009). As theorised in the literature, there is a strong link between social integration and transitions of wellbeing for households: this confirms the importance of social networks as a mediator for access to resources and opportunities for migrant families (Theodore & Martin, 2007) and means that social capital is a key buffer against the disruptions from geographical mobility. Furthermore, this total pathway effect of infrastructure accessibility in the regression and also in the SEM model contributes to existing literature regarding the agglomeration economies models, adding a quantitative value on the specific impact infrastructure accessibility can have on the sustainability of the community as an empirical evident for the future comparative analysis.

From the pragmatic point of view these findings are of importance in cities with rapidly changing urban areas for urban planners and policy makers. This finding that infrastructure accessibility is the biggest predictor suggests that, in addition to the apparent priority of closing spaces, water and sanitation infrastructure access and energy electricity grid investments are encouraged and must rank higher as basic interventions with potential spill over effects on employability, service provision and social integration by the municipalities. Social integration (, however, argues that if investments are made in physical infrastructure, place-based social investments to ensure that migrants and their host communities can interact with each other, such as through the creation of public spaces for mixing, community centres, and participatory upgrading neighbourhood programmes must also be considered to avoid a particle technocentrics approach. A solution to this would be for policy makers to create affordable housing policies and financial support tools to cater to the income level of households that are moving around, as affirmed by 41.8% of the respondents in the report, where the affordable housing shortage was indicated as one of the barriers to freedom of mobility. Furthermore, with 11.7% contribution of climate-induced migration the study recommends that in urban developments there should be a climate adaptation plan, and there is need for improving livelihood diversification program in the communities of origin to reduce distress induced migration.

It is important to bear in mind that these findings are subject to a number of methodological limitations in the interpretation. Since this was a cross sectional study, there may be reverse causation or unmeasured or unknown cofactors in those people who linked predictors with outcomes. Take an illustration, where a community having high levels of sustainability would tend to draw in more infrastructure investment than a community would invest in infrastructure to improve the level of sustainability. However, reporting by self can lead to bias of social desirability, particularly when it comes to social integration and participation in the community, this can be social desirability bias and respondents may overestimate their participation. Also, the 20 cities and 20 rural communities were chosen on the basis of geographic diversity;

however, the extent to which the communities have diverse experiences on urbanisation in various countries around the world, in varying institutional settings and across varying levels of economic development is not evident. This involves only literature produced in English, however, and so adds certain forms of linguistic bias: while some important research may have been written on the rapidly urbanising regions, it may not have been published in English. Moreover, the Urban Sustainability Index and other composite indicators might involve the aggregation of different indicators by giving them the same weight and might mask within sub-dimension differences that have been verified through Cronbach's Alpha reliability test. Future research is suggested, which should explore the results concerning various parameters that were employed to build the index and also different weights.

This build on these restrictions and substantive results suggests some directions for further investigation. The importance of a longitudinal design of community panel following the same communities and households over time to help identify temporal ordering and causality in the relation between the construction of buildings, infrastructure development projects and job security, social inclusion and sustainable development outcomes is evident. Such designs would also enable identifying critical windows for intervention and determining if positive impacts of moving into urban areas are increased or decreased with successive generations of migrants. Even the quality of local governance, which has been contradicted by others as a moderating factor, and the capacity of local institutions, needs to be studied further since the effectiveness of investments and social integration programs discussed in the present analysis may, in fact, be found in the transparency, accountability and responsiveness of local government institutions. Few studies exist on the experiences of specific vulnerable migrant groups—such as those in female-headed households, the youth or those from an ethnic minority group—that may have processes or outcomes much distinct from the average trends in this research. A comparative analysis of different urban settlement typologies (informal settlements, planned neighbourhoods and peri-urban transition zones) would also show how the moderated variables of the two are related to each other. Finally, qualitative techniques such as life-history interviewing or ethnographic observation, which are based on everyday practices, might be applied in combination with these quantitative facts to see how the residents lived their lives and how they lived by the opportunities and pressures of the fast paced urbanization, giving life to the statistical trends found in this research..

Conclusion

The aim of this research was to delve into the relationship between migration, urbanization, sustainable community development, as well as the hypothesis that both migration and urbanization offer opportunities and pressures for housing, environment and social equity at the same time. Our results provide strong empirical evidence of how migration and urbanization are a driving force for the overall increase in access to better jobs, public service and infrastructure and at the same time the outcomes of sustainable community development itself have improved by 18.6% to 24.3% on several indicators. Nevertheless, there were certain challenges recorded that hindered these overall results: preventing shortfall of affordable housing (41.8%), infrastructure (38.4%) and social inequality (27.9%). The findings from regression and structural equation allowed for consistent results of the dimensions that are most

influential taxing sustainable development such as mainstream infrastructures, employment, social integration and community participation with 71.8% variance accounted. The research's value is that it quantifies and evaluates opportunities and boundaries of demographic transitions together to deliver empirically grounded evidence that will improve the understanding of the multi-dimensional nature of sustainable urbanization. Furthermore, for social integration, the results demonstrate that there is a very strong correlation between wellbeing of households and resilience of the community, indicating a strong need for social and physical capital resources such as buildings and infrastructure, but, importantly, also for a broad social base in the form of social capital to facilitate collective action and inclusive governance.

In addition to the cross sectional relationships as seen in this study, future research should primarily investigate longitudinal panel studies to provide insights about the causal relations between infrastructure investment and employment stability and sustainable development outcomes. This recognises the role of climate-related migration as an important factor of influence with 11.7% of migrant households being influenced by it and provides impetus to look into the influence of environmental change on urban settlements and what measures government policies can take to accommodate climatic induced population movements. Variance that was not fully explained by our quantitative models may suggest possible mechanisms and other factors to consider in relation to sustainable outcomes that may be identified through future qualitative investigations related to lived experience of those who must be able to negotiate rapid urbanisation. Multi-sectoral approaches including investments into access to infrastructure, inclusion in socio-economic processes including employment and specifically explicitly formulated concepts to foster cohesion between population groups are necessary to achieve balanced and resilient sustainable development in the community, which can be seen now in the current results.

References

- Adger, W., Fransen, S., Campos, R. S. de, et al. (2024). Migration and sustainable development. *Proceedings of the National Academy of Sciences*.
- Auwalu, F., & Bello, M. (2023). Exploring the contemporary challenges of urbanization and the role of sustainable urban development: A study of lagos city, nigeria. *Journal of Contemporary Urban Affairs*.
- Cohen, B. (2006). Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in Society*.
- Farrell, K. (2017). The rapid urban growth triad: A new conceptual framework for examining the urban transition in developing countries. *Sustainability*.
- Gómez, O. (2013). Climate change and migration: A review of the literature. *ISS Working Paper Series/General Series*.
- Haas, H. D., Castles, S., & Miller, M. (2019). *The age of migration: International population movements in the modern world*. books.google.com.

- Idowu, O. (2013). Challenges of urbanization and urban growth in nigeria. *American Journal of Sustainable Cities and Society*.
- Jones, P. (2017). Formalizing the informal: Understanding the position of informal settlements and slums in sustainable urbanization policies and strategies in bandung *Sustainability*.
- Keiner, M. (2016). *Managing urban futures: Sustainability and urban growth in developing countries*. books.google.com.
- Mazumdar, D. (1987). Rural-urban migration in developing countries. *Handbook of Regional and Urban Economics*.
- Murillo, F. (2017). Migrants and rapid urbanization: A new agenda for humanitarian and development urban planning. *United Nations Department of Economic and Social Affairs*.
- Ogwu, M. (2019). Towards sustainable development in africa: The challenge of urbanization and climate change adaptation. *The Geography of Climate Change Adaptation in Urban Africa*.
- Pacione, M. (2009). *Urban geography: A global perspective*. api.taylorfrancis.com.
- Richardson, H. (1981). National urban development strategies in developing countries. *Urban Studies*.
- Theodore, N., & Martin, N. (2007). Migrant civil society: New voices in the struggle over community development. *Journal of Urban Affairs*.
- Trask, B. (2022). Migration, urbanization, and the family dimension. *Department of Economic and Social Affairs: Division for Inclusive Social Development, Focal Point on the Family*.
- Worrall, L., Colenbrander, S., Palmer, I., Makene, F., et al. (2017). *Better urban growth in tanzania: Preliminary exploration of the opportunities and challenges*. urbantransitions.global.